Research Article

Developing an Aesthetic Education Program Based on the Reggio Emilia Approach for Preschool Children in Early Childhood Education Settings: A Quantitative Study in Urban Vietnam

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About Article

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ABSTRACT

Vietnam's early childhood education is undergoing a transformative phase, with an increasing emphasis on children's holistic development. Among emerging pedagogical approaches, the Reggio Emilia philosophy has garnered attention for its potential to nurture children's aesthetic perception and creative expressive capabilities. Although this approach offers significant possibilities, its success heavily relies on the preparedness of preschool teachers, who play a pivotal role in shaping meaningful aesthetic experiences in the classroom. This study investigates the readiness and implementation capacity of preschool teachers in designing and implementing Reggio Emilia-inspired aesthetic education programs. Conducted in Hanoi, the research employed a quantitative design, collecting survey data from 271 participants, including 136 teachers (GVMN) and 135 school administrators (CBQL), across 20 early childhood education settings using a structured questionnaire assessing key competencies related to program development, supplemented by interviews for further clarification. Findings indicate that survey participants generally hold a positive perception of Reggio Emilia-inspired aesthetic education. However, many reported challenges in translating these ideas into practice, particularly in areas of content design, curriculum delivery, and program adaptation. The perceived level of readiness was found to be significantly correlated with factors such as teachers' qualifications, competencies, teaching experience, and the extent of multi-faceted support. These results highlight the importance of targeted professional development and collaborative engagement with pedagogical experts specializing in the Reggio Emilia approach. Such support can be instrumental in enhancing teachers' confidence and competence, ultimately enabling the sustainable and contextually appropriate integration of Reggio Emilia-inspired aesthetic education into early childhood settings across Vietnam.

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1. INTRODUCTION

In recent years, early childhood education worldwide has shown a strong trend towards holistic approaches and child-centeredness. In Vietnam, early childhood education is undergoing a fundamental and comprehensive reform process, oriented towards international integration, in which innovating the content, methods, and organizational forms of aesthetic education has become a strategic and urgent requirement. Numerous studies on early education have affirmed the significant role of aesthetic education (AE) in the holistic development of preschool children. Activities such as music, visual arts, and drama not only contribute to developing expressive and emotional capabilities but also nurture personal interests, imagination, and social collaboration skills in children within their daily learning environment.

Among modern educational methods, the Reggio Emilia approach, originating in Italy – a country rich in cultural and artistic traditions – has been internationally recognized as an advanced early childhood education model. Newsweek magazine (1991) once ranked the Reggio Emilia preschool system as one of the most influential models globally, distinguished by its deep integration of aesthetic elements throughout the educational program. Aesthetic education in the Reggio Emilia approach is not considered an auxiliary activity but the core of its pedagogical philosophy – a place where children's perceptual abilities, creativity, and personalized learning experiences are nurtured through interaction with the environment and art.

Although much theoretical research has clarified the philosophy and implementation methods of education following the Reggio Emilia approach, empirical studies, especially quantitative research on the development of aesthetic education programs in Vietnam, remain limited. Core components such as defining objectives, developing content, organizing activities, and evaluating and adjusting programs have not yet been fully investigated within Vietnam's specific socio-cultural context. Furthermore, the role of teachers as co-constructors of aesthetic education programs has not been systematically analyzed.

This study aims to fill this gap by surveying the perceived necessity and actual implementation levels in developing aesthetic education programs based on the Reggio Emilia approach among preschool teachers in Hanoi during the 2023–2024 academic year. Concurrently, the research also aims to propose feasible and contextually appropriate solutions to enhance the quality of developing and implementing aesthetic education programs – contributing to creating a creative, humanistic, and holistically developmental learning environment for children.

To achieve this aim, the study seeks to answer the following research questions:

i. To what extent do early childhood education administrators and preschool teachers perceive the necessity of developing aesthetic education programs based on the Reggio Emilia approach?

ii. What is the current level of implementation of aesthetic education program components—such as goal-setting, content development, activity organization, and evaluation—based on the Reggio Emilia approach in urban Vietnamese preschools?

iii. Are there significant differences between administrators (CBQL) and teachers (GVMN) in their perceptions of necessity and actual implementation of aesthetic education programs?

2. LITERATURE REVIEW

2.1. Literature review on developing aesthetic education programs based on the reggio emilia approach

2.1.1. Aesthetic education in the reggio emilia approach

The Reggio Emilia approach in early childhood education has garnered considerable attention from researchers globally, particularly in countries like the USA, Canada, the UK, and Indonesia. Numerous works have focused on analyzing its philosophical aspects, educational values, and practical applications in developing and organizing aesthetic education activities for children.

Louise Caldwell (An Vi, 2018) emphasizes that Reggio Emilia is a pedagogical philosophy inspired by art, language, and the environment, aiming to create learning conditions rich in emotion and stimulating creativity. Teachers and researchers often approach Reggio Emilia through specialized literature such as books, videos, and journals from the Reggio Children organization to understand its core principles and guidelines for application appropriate to local contexts.

According to Cutche (2013), Reggio Emilia reflects exemplary educational practices and is highly regarded in the field of early childhood education. She also affirms that creativity is a fundamental human right, and the relationship between creativity and democracy is an inseparable foundation in the Reggio Emilia philosophy. This view is reinforced by Fadumo Aden (2019), who suggests that art serves as a means of communication and expression of thoughts and emotions through three main forms: literacy arts, performing arts, and visual arts. From a psychological perspective, Lilly K.V and Sudhakar (2021) argue that artistic activities are not merely creative acts but also contribute to shaping thinking, developing emotions, and nurturing aesthetic sensitivity in children.

The Singapore Ministry of Education's preschool curriculum document (2013) also recognizes the positive role of art, music, and movement in promoting children's holistic development – encompassing cognitive, socio-emotional, physical, and creative domains. "Encouraging children to respond through artistic expression helps develop their expressive, imaginative, and effective communication skills."

From a pedagogical perspective, Cutche (2013) and Viv Aitken (2013) both affirm the role of art forms such as poetry, painting, and drama as children's "second language. "The Mantle of the Expert" model – developed by educator Dorothy Heathcote – demonstrates that creating a fictional learning environment where children role-play as experts can provide profound motivation for the development of their thinking, understanding, and leadership skills in the preschool classroom. Furthermore, Mukhametshin *et al.* (2020) also point out that drawing is one of the most accessible and engaging art forms for young children. This shows that children's capacity for aesthetic perception and expression is very natural, and if properly encouraged, it will create an important foundation for long-term creative development.

The theoretical and practical contributions mentioned above indicate that aesthetic education within the Reggio Emilia

approach is not merely a means to beautify the school environment, but also a method for nurturing creativity, personalizing learning, and promoting democratic dialogue among children, teachers, and the environment.

2.1.2. Developing aesthetic education programs based on the reggio emilia approach

The development of aesthetic education programs following the Reggio Emilia approach has become a topic of widespread interest in the international educational research community. This stems from the model's prominent features, such as flexibility, respect for aesthetics, and adaptability to diverse cultural and social contexts.

According to the Reggio Emilia philosophy, children are viewed as competent individuals capable of constructing knowledge through interactions with the environment, adults, and peers. Edwards *et al.* (2012), emphasize that the curriculum in this model is not predefined by rigid structures but is flexibly co-constructed through observation and practical dialogue with children, where the environment is considered the "third teacher." Research by Foerch and Iuspa (2016), as well as Liunardi (2021), shows that when appropriately contextualized, the principles of Reggio Emilia can be effectively applied in many different countries. This idea is reinforced by Carlina Rinaldi's (2006) analysis, who argues that education should be a continuous process of collaboration and dialogue, rather than the imposition of a predefined program.

A distinctive aspect of the Reggio Emilia program is its emphasis on the role of aesthetic education. Manera (2022) points out that aesthetics is not just an auxiliary element but a core component in eliciting children's creativity. This is actualized through the design of specialized art spaces (ateliers) and the participation of an art educator (atelierista) as a key member of the teaching team. In Amanda Paige Smith's (2007) research, a music program in a North American preschool combined elements of light, sound, and space to create profound sensory experiences, consistent with the spirit of the Reggio Emilia philosophy.

The document "The Hundred Languages of Children" by Edwards *et al.* (2012) serves as a guiding handbook for educators approaching Reggio Emilia, sharing practical insights from the Reggio Emilia teaching staff under the guidance of Loris Malaguzzi (2021). Many other important documents from educators such as Louise Caldwell (An Vi, 2018), Vea Vecchi, Carlina Rinaldi, Julianne P. Wurm, Linda Thornton & Pat Brunton, Trinh Thi Xim, etc., have also contributed to shaping the theoretical system and practice of program development based on this model in various countries.

From theory to practice, developing aesthetic education programs based on the Reggio Emilia approach requires a combination of flexibility and orientation. Specifically, the program design process should begin with an assessment of the actual conditions of the school and community, thereby defining objectives that align with learning outcomes while still respecting children's individuality and creativity. Program content needs to be developed in an open, integrated manner with daily life, utilizing projects linked to experiences and the surrounding environment. Activities are organized with the child at the center, and the evaluation and adjustment process must be based on observation, listening to children, and feedback from teachers and parents to ensure appropriateness and adaptability. Based on foundational research, the research team identifies four main components in developing aesthetic education programs following the Reggio Emilia approach: (1) defining objectives, (2) developing content, (3) organizing implementation, and (4) evaluating and adjusting the program. This is the consistent analytical framework applied in this study to clarify the current situation and propose implementation orientations at early childhood education
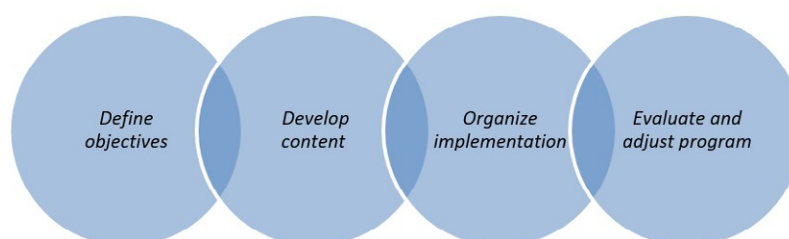
Figure 1. Settings in Vietnam

3. METHODOLOGY
3.1. Research sample
The sample for this study was selected using a purposive stratified sampling strategy, which ensured representation across both administrative and instructional roles within early childhood education institutions. This approach was chosen to capture diverse perspectives from stakeholders directly involved in the development and implementation of aesthetic education programs following the Reggio Emilia approach.

A total of 271 participants from 20 public and non-public preschools in Hanoi, Vietnam took part in the study. The sample included:

- 135 early childhood education administrators (CBQL), including principals, vice-principals, and heads of preschool grades levels.

- 136 preschool teachers (GVMN) responsible for directly instructing children aged 3 to 6 years.

These schools were purposefully selected based on their documented engagement with the Reggio Emilia approach in organizing aesthetic education activities. The criteria for inclusion were:

- Schools that had adopted or piloted aesthetic education strategies aligned with the Reggio Emilia philosophy;

- Participants with at least one year of experience in their

current role to ensure familiarity with program design and implementation.

The stratification ensured proportional representation of both leadership and teaching perspectives, which is essential for comparing differences in perception, decision-making authority, and practical experience. Furthermore, it allowed for comparative analysis between groups using inferential statistics such as the independent samples t-test.

This sample design enhances the validity and generalizability of the findings within the scope of early childhood education institutions in the urban Vietnamese context.

All participants were informed about the objectives of the study and participated voluntarily. Informed consent was obtained prior to data collection, and participants were assured of the confidentiality and anonymity of their responses. No identifying information was collected, and all data were used solely for research purposes. The study was conducted in accordance with ethical standards for educational research.

3.2. Research approach and data collection methods

A mixed-methods approach was adopted to comprehensively investigate the research problem. This approach combines the strengths of both quantitative and qualitative methods, enabling the researchers to explore measurable trends while also capturing the subjective experiences and perceptions of the participants (Creswell & Plano Clark, 2018).

Three primary methods were employed for data collection:

3.2.1. Questionnaire survey

A structured questionnaire was developed and administered to both administrators and preschool teachers participants. The questionnaire included items aligned with four core components of aesthetic education program development: (1) defining goals, (2) developing content, (3) organizing implementation, and (4) evaluating and adjusting the program. Responses were recorded on a five-point Likert scale, ranging from 1 = Not necessary/Weak to 5 = Very necessary/Very good, allowing participants to express the perceived necessity and current level of achievement of each criterion. This scale enabled consistent measurement and interpretation across respondent groups and items.

3.2.2. Semi-structured interviews

To supplement and enrich the quantitative findings, semi-structured interviews were conducted with a selected subset of participants, including both administrators and preschool teachers. These interviews aimed to capture in-depth insights into participants' practical experiences, professional judgments, and personal reflections regarding the implementation of aesthetic education based on the Reggio Emilia approach. The open-ended nature of the interview questions allowed for flexible exploration of emerging themes while maintaining a consistent focus on the core research objectives.

3.2.3. Data analysis

Quantitative data were analyzed using IBM SPSS Statistics version 26.0. Descriptive statistics - mean scores and standard deviations - were used to summarize responses for each item. To examine differences in perceptions between administrators and teachers, independent samples t-tests were conducted. Statistical significance was evaluated at the conventional threshold ($p < .05$). Additionally, the internal consistency of the questionnaire scales was assessed using Cronbach's Alpha, with $\alpha \geq 0.70$ regarded as the threshold for acceptable reliability (Nunnally & Bernstein, 1994).

3.3. Criteria and rating scale

Qualitative data obtained from interviews were processed using content analysis. Transcripts were reviewed and coded thematically, with emerging patterns categorized under domains related to program goals, pedagogical practices, contextual challenges, and implementation strategies. These findings were then compared with the quantitative data to identify convergent and divergent perspectives, thereby strengthening the internal validity of the research through triangulation (Miles *et al.*, 2014).

- After obtaining results from the questionnaires, data entry, data cleaning, and analysis were conducted according to the scoring convention for each level in each question as follows:

Table 1. Level and corresponding score

Very necessary	Quite necessary	Moderately necessary	Less necessary	Not necessary
Good	Good	Fair	Average	Weak
5 points	4 points	3 points	2 points	1 point

The score for each item will be calculated for its mean, standard deviation, and ranking. The meaning of each mean value for the Interval Scale will be determined as follows:

Interval range = (Maximum - Minimum) / n = (5-1) / 5 = 0.8

Mean Value	Meaning	
1.00 - 1.80	Not necessary / Weak	1.00 - 1.80
1.81 – 2.60	Less necessary / Average	1.81 – 2.60
2.61 – 3.40	Moderately necessary / Fair	2.61 – 3.40
3.41 – 4.20	Quite necessary / Good	3.41 – 4.20
4.21 – 5.00	Very necessary / Very good	4.21 – 5.00

4. RESULTS AND DISCUSSION

To assess the current status of developing aesthetic education programs based on the Reggio Emilia approach, the research team surveyed the opinions of school administrators and preschool teachers at ECE settings in Hanoi. Table 1 presents the survey results regarding the necessity and implementation levels of items related to defining AE program objectives for preschool children.

4.1. Perceptions of Early Childhood Education Administrators and Preschool Teachers on Defining the Goals of Aesthetic Education Programs Based on the Reggio Emilia Approach for Preschool Children in Early Childhood Education Institutions

Table 2. Perceptions of early childhood education administrators and preschool teachers on defining the goals of aesthetic education programs based on the Reggio Emilia approach for preschool children in early childhood education institutions.

Objectives Aesthetic Education Programs	Group	Level of Necessity		Level of Achievement	
		Mean	SD	Mean	SD
Defining AE program objectives based on the Reggio Emilia approach appropriate to the psycho-physiological developmental characteristics of preschool children.	CBQL	3.88	1.10	2.31	1.04
	GVMN	4.97	0.18	2.15	1.03
	Total Sample	4.43	0.95	2.23	1.03
	Sig.	**0.000**		**0.244**	
Defining AE program objectives based on the Reggio Emilia approach appropriate to the physical facilities and equipment conditions of the early childhood education setting.	CBQL	4.88	0.33	2.28	1.20
	GVMN	4.80	0.50	2.04	0.90
	Total Sample	4.84	0.42	2.16	1.06
	Sig.	**0.136**		**0.093**	
Defining AE objectives for preschool children to foster enjoyment of singing, listening to music, dancing, performing, exploring musical instruments; developing musical skills and creativity in musical activities.	CBQL	4.80	0.40	2.41	1.27
	GVMN	4.87	0.38	1.87	0.98
	Total Sample	4.84	0.39	2.14	1.16
	Sig.	**0.166**		**0.000**	
Defining AE objectives for preschool children to foster appreciation for natural beauty; appreciation for artworks; developing skills and creativity in visual arts activities.	CBQL	4.84	0.42	2.59	1.18
	GVMN	4.94	0.24	2.88	1.18
	Total Sample	4.89	0.34	2.74	1.19
	Sig.	**0.019**		**0.057**	
Defining AE objectives for preschool children to foster enjoyment of watching and commenting on children's drama; developing skills in participating in dramatic activities and creativity in drama.	CBQL	4.84	0.37	2.45	1.22
	GVMN	4.97	0.18	2.51	0.87
	Total Sample	4.90	0.30	2.48	1.06
	Sig.	**0.001**		**0.664**	
Trung bình chung	CBQL	4.65	0.35	2.41	0.94
	GVMN	4.91	0.22	2.29	0.61
	Total Sample	4.78	0.32	2.35	0.79

The survey data in Table 2 show that both administrators and preschool teachers highly rated the objectives of the AE program following the Reggio approach; these objectives are all very necessary (mean scores from 4.43 to 4.90 out of a maximum of 5.0). Among them, two items were rated as most necessary by participants: (1) Defining AE objectives for preschool children to foster enjoyment of watching and commenting on children's drama; developing skills in participating in dramatic activities and creativity in drama, with a mean score of 4.90. This figure indicates a very high desire for objectives related to developing attitudes, skills, and creativity in drama activities for preschoolers.

(2) Defining AE objectives for preschool children to foster appreciation for natural beauty; appreciation for artworks; developing skills and creativity in visual arts activities, with a mean score of 4.89.

Regarding the item: Defining AE program objectives based on the Reggio Emilia approach appropriate to the psycho-physiological developmental characteristics of preschool children, it achieved the lowest mean score of 4.43, suggesting that teachers may not yet fully prioritize or emphasize this aspect.

There were statistically significant differences between the responses of administrators and preschool teachers in the survey (items 1, 4, and 5 had sig. <0.05). In most survey items, preschool teacher rated the necessity of program objectives higher than administrator. This is a realistic perspective showing that preschool teachers, who work directly with children, understand and have high expectations for their work, indicating a positive signal regarding preschool teachers awareness.

The survey data on the level of achievement regarding program objectives are at an average level, with an overall mean score of 2.35/5.0. This result is clearly reflected in items with mean scores ranging from 2.14 to 2.74.

The mean score for item (1) Defining AE objectives for preschool children to foster appreciation for natural beauty; appreciation for artworks; developing skills and creativity in visual arts activities was 2.74, and (2) Defining AE objectives for preschool children to foster enjoyment of watching and commenting on children's drama; developing skills in participating in dramatic activities and creativity in drama was 2.48. The consensus on high necessity for these two objectives, along with the highest achievement scores in these two areas, represents a commendable effort at ECE settings in Hanoi where they have achieved this level in implementing the AE program objectives. According to an expert from the Department of Education and Training, "One of the reasons for the fair level of achievement in AE objectives for preschool children is that the Department of Education and Training organized expert-led training workshops to enhance the quality of aesthetic education in two areas: music and visual arts. This program was implemented collaboratively by experts from the Department and the Ministry of Education and Training in a very systematic way, thus administrators and preschool teachers were equipped with knowledge and skills regarding these two areas." These two objectives also achieved the highest necessity and achievement levels, indicating that training programs, such as those implemented by UNICEF, have been effective for administrators and preschool teachers in Hanoi.

4.2. Perceptions of early childhood education administrators and preschool teachers on developing the content of aesthetic education programs based on the reggio emilia approach for preschool children in early childhood education institutions.

Table 3. Perceptions of early childhood education administrators and preschool teachers on developing the content of aesthetic education programs based on the Reggio Emilia approach for preschool children in early childhood education institutions.

Content for Aesthetic Education Programs	Group	Level of Necessity		Level of Achievement	
		Mean	SD	Mean	SD
Developing a system of themes; music branches by theme	CBQL	4.81	0.39	2.84	1.18
	GVMN	4.86	0.39	3.81	0.91
	Total	4.84	0.39	3.33	1.16
	Sig.	**0.293**		**0.000**	
Developing a project bank; designing a network of music activities within projects	CBQL	4.82	0.39	1.94	1.23
	GVMN	4.97	0.18	1.98	0.95
	Total	4.89	0.31	1.96	1.09
	Sig.	**0.000**		**0.762**	
Developing content for visual arts branches by theme	CBQL	4.78	0.42	3.12	1.04
	GVMN	4.79	0.49	3.83	0.91
	Total	4.78	0.45	3.48	1.04
	Sig.	**0.836**		**0.000**	
Designing a network of visual arts activities within projects	CBQL	4.85	0.36	2.10	1.17
	GVMN	4.83	0.48	2.46	1.03
	Toàn mẫu	4.84	0.42	2.28	1.11
	Sig.	**0.677**		**0.015**	
Developing content for drama activity branches by theme	CBQL	4.73	0.44	3.10	1.10
	GVMN	4.44	0.90	3.84	0.96
	Total	4.59	0.73	3.47	1.09
	Sig.	**0.002**		**0.000**	

Designing a network of drama activities within projects	CBQL	4.78	0.47	1.87	1.10
	GVMN	4.70	0.49	2.39	1.09
	Total	4.74	0.48	2.13	1.13
	Sig.	**0.201**		**0.000**	
Arranging music, visual arts, drama (M, VA, D) activities according to Reggio Emilia approach in children's daily/weekly schedule	CBQL	4.71	0.46	2.56	0.95
	GVMN	4.53	0.79	3.52	1.13
	Total	4.62	0.65	3.04	1.15
	Sig.	**0.033**		**0.000**	
Arranging music, visual arts, drama (M, VA, D) activities according to Reggio Emilia approach in children's daily/weekly schedule	CBQL	4.72	0.45	2.60	0.95
	GVMN	4.81	0.48	2.99	1.08
	Total	4.76	0.46	2.80	1.03
	Sig.	**0.182**		**0.004**	
Evaluating quality of AE program content through music, visual arts, drama activities; via pedagogical materials, plans, designs, models, sketches, images, records, children's products, etc.	CBQL	4.79	0.41	2.07	1.03
	GVMN	4.86	0.42	2.02	0.96
	Total	4.82	0.41	2.04	0.99
	Sig.	**0.246**		**0.687**	
Overall Mean	CBQL	4.78	0.31	2.46	0.72
	GVMN	4.75	0.33	2.98	0.45
	Toàn mẫu	4.77	0.32	2.72	0.65

The survey data in Table 3 show that both administrators and preschool teachers rated the necessity of developing aesthetic education program content following the Reggio Emilia approach for preschool children in ECE settings as very necessary (mean scores from 4.59 to 4.89 out of a maximum of 5.0). Among them, four items were rated as most necessary by participants: (1) Developing a project bank; Designing a network of music activities within projects; (2) Designing a network of visual arts activities within projects; (3) Developing a system of themes for different domains; music branches by theme; (4) Evaluating the quality of AE program content through music, visual arts, drama activities; via pedagogical materials, plans, designs, models, sketches, images, records, children's products, etc.

The results of evaluating the level of achievement in content development show that the development of AE content currently implemented according to the general thematic program is quite good, such as "Developing content for visual arts branches by theme" with a mean of 3.48 and "Developing content for drama activity branches by theme" with a mean of 3.47. These figures indicate that the implementation of thematic content development according to the Ministry of Education and Training's framework is being carried out quite well, representing the highest achievement levels in the data tables on the current state of AE in Hanoi.

Besides, new items requiring capacity and experience in developing programs following the Reggio Emilia approach achieved very low scores. The item "Developing a project bank, a network of drama activities within projects" scored 1.96, and "Evaluating the quality of AE program content through music, visual arts, drama; via pedagogical materials, plans, designs, models, sketches, images, records, children's products, etc." scored 2.04, which are the lowest achievement levels in the table. This indicates that developing project banks, activities within projects, and forms of teacher assessment still face many difficulties, as ECE settings lack opportunities to access materials, have not participated in training, and lack support from management levels and experts. This highlights that developing such materials and training teachers and administrator on the knowledge and skills for AE program development following the Reggio Emilia approach is extremely necessary in the near future.

There were no statistically significant differences between the responses of administrators and preschool teachers in the survey except for the items "Developing a project bank; Designing a network of music activities within projects," and "Arranging music, visual arts, drama (M, VA, D) activities according to Reggio Emilia approach in children's daily/weekly schedule" which had sig. <0.05). In most survey items, administrators and preschool teachers rated the inquired content relatively similarly.

In a discussion with a administrator from Xuan La Preschool, she stated, "Developing learning projects and designing networks of activities for music, visual arts, and drama is very necessary. This is a new approach to changing how activities are organized for children because project-based learning is highly integrated, enhances children's experiences, and makes educational activities very diverse, engaging children enthusiastically. Teachers themselves can improve their professional capacity, but in reality, ECE settings in Hanoi have not yet been trained on this content."

4.3. Perceptions of preschool administrators and preschool teachers on organizing and implementing aesthetic education programs according to the reggio emilia approach for preschool children in ppreschool education facilities

Table 4. Perceptions of preschool administrators and preschool teachers on organizing and implementing aesthetic education programs according to the reggio emilia approach for preschool children in preschool education facilities

Organizing Program Implementation	Group	Level of Necessity		Level of Achievement	
		Mean	SD	Mean	SD
School, GVMN, and stakeholders build environment; prepare materials, tools, technology (light tables, projectors, musical instruments, props, costumes, etc.) for M, VA, D activities.	CBQL	4.78	0.42	2.03	1.19
	GVMN	4.97	0.18	2.35	1.07
	Total	4.87	0.34	2.19	1.14
	Sig.	**0.000**		**0.035**	
Teachers design M, VA, D educational activities by theme.	CBQL	4.84	0.37	3.25	1.05
	GVMN	4.36	0.97	3.78	0.93
	Total	4.59	0.77	3.52	1.02
	Sig.	**0.000**		**0.000**	
Teachers develop plans for M, VA, D activities within project networks.	CBQL	4.88	0.33	2.78	1.14
	GV	4.64	0.59	2.37	1.04
	Total	4.76	0.50	2.57	1.11
	Sig.	**0.000**		**0.005**	
Teachers organize music education activities by theme for preschoolers.	CBQL	4.78	0.42	2.69	1.25
	GVMN	4.23	0.82	3.51	1.03
	Total	4.50	0.71	3.10	1.21
	Sig.	**0.000**		**0.000**	
Teachers organize music education activities within project networks for preschoolers. | CBQL	CBQL	4.81	0.39	2.59	1.24
	GVMN	4.64	0.55	2.19	1.08
	Total	4.73	0.48	2.39	1.17
	Sig.	**0.008**		**0.011**	
Teachers organize visual arts education activities by theme for preschoolers.	CBQL	4.78	0.45	2.56	1.26
	GVMN	4.14	0.87	3.84	0.92
	Total	4.46	0.76	3.21	1.27
	Sig.	**0.000**		**0.000**	
Teachers organize visual arts education activities within project networks for preschoolers.	CBQL	4.76	0.43	2.36	1.03
	GVMN	4.73	0.48	2.52	1.20
	Total	4.74	0.46	2.44	1.12
	Sig.	**0.619**		**0.292**	
Teachers organize drama activities according to program content, including thematic activities for preschoolers.	CBQL	4.72	0.50	2.83	1.03
	GVMN	3.83	0.84	3.64	1.02
	Total	4.27	0.82	3.24	1.10
	Sig.	**0.000**		**0.000**	

Teachers organize drama activities within project networks for preschoolers.	CBQL	4.77	0.42	2.06	1.02
	GVMN	4.52	0.65	2.48	0.97
	Total	4.64	0.56	2.27	1.01
	Sig.	**0.001**		**0.001**	
Overall Mean	CBQL	4.79	0.31	2.57	0.73
	GVMN	4.45	0.42	2.97	0.44
	Total	4.62	0.40	2.77	0.63

The data from Table 4 show that activities related to organizing the implementation of AE programs following the Reggio Emilia approach for preschool children in ECE settings were rated as very necessary by both administrators and preschool teachers (mean scores from 4.27 to 4.87 out of a maximum of 5.0). Among them, four items were rated as most necessary: (1) School, preschool teachers, and stakeholders build environment; prepare materials, tools, technology (light tables, projectors, musical instruments, props, costumes, etc.) for M, VA, D activities, achieving a mean of 4.87; (2) Teachers develop plans for M, VA, D activities within project networks, achieving a mean of 4.76; (3) Teachers organize visual arts education activities within project networks for preschoolers, achieving a mean of 4.74; (4) Teachers organize music education activities within project networks for preschoolers, achieving a mean of 4.73.

Most items in the table showed statistically significant differences between the responses of administrators and preschool teachers (except for the item "Teachers organize visual arts education activities within project networks for preschoolers" with sig. >0.05). In most survey items, CBQL and GVMN responses were similar. The current state of program implementation, according to administrators and preschool teachers, rated the necessity level higher for organizing AE activities following the Reggio Emilia approach compared to organizing AE activities under the current program in ECE settings. This shows that the trend of approaching advanced, modern methods is an inevitable trend to improve the quality of children's education.

In terms of achievement level: Teachers designing M, VA, D educational activities by theme was rated as good, with a mean score of 3.52. Items currently being implemented at a "Fair" level (from 3.10 to 3.24) are: "Teachers organize drama activities by theme"; "Teachers organize visual arts education activities by theme"; and "Teachers organize music education activities by theme."

The item with the lowest achievement level is: School, preschool teachers, and stakeholders build environment; prepare materials, tools, technology (light tables, projectors, musical instruments, props, costumes, etc.) for M, VA, D activities, with a mean of 2.19. This indicates that investment and preparation of facilities at ECE settings are not well done, and parental and community support is not yet effective. Activities organized within projects also achieved a low "Average" level.

According to a administrator from a preschool in Hoai Duc, "The school focuses on building the environment, providing, and supporting basic learning resources for classes organizing AE activities following the Reggio Emilia approach. However, when organizing music, visual arts, and drama activities within project networks following the Reggio Emilia approach, the school is not yet equipped with enough technological devices. Furthermore, teachers face many difficulties due to limited training on Reggio Emilia, and they haven't had opportunities to visit model sites in localities that have successfully implemented the Reggio Emilia approach in Hanoi. Our school hopes that in the future, ECE settings will be organized by the Department of Education management to attend training sessions and visit exemplary ECE settings so we can learn and enhance our knowledge and experience."

4.4. Perceptions of early childhood education administrators and preschool teachers on organizing aesthetic education activities based on the reggio emilia approach for preschool children in early childhood education institutions

Table 5. Perceptions of early childhood education administrators and preschool teachers on organizing aesthetic education activities based on the reggio emilia approach for preschool children in early childhood education institutions.

Evaluating and Adjusting Program	Group	Level of Necessity		Level of Achievement	
		Mean	SD	Mean	SD
Developing forms of assessing M, VA, D activity outcomes by phase; via pedagogical materials; observation, interviews; children's products; displays, etc.	CBQL	4.77	0.46	2.77	1.13
	GVMN	4.75	0.49	2.02	1.04
	Total	4.76	0.48	2.39	1.15
	Sig.	**0.732**		**0.000**	
Collecting feedback from teachers after implementing AE program.	CBQL	4.72	0.52	2.12	1.14
	GVMN	4.51	0.68	2.28	1.07

	Total	4.62	0.61	2.20	1.10
	Sig.	**0.007**		**0.271**	
Collecting evaluation feedback from parents.	CBQL	4.56	0.68	2.59	1.17
	GVMN	4.14	0.74	2.12	1.10
	Total	4.35	0.74	2.35	1.16
	Sig.	**0.000**		**0.002**	
Collecting feedback from experts/pedagogical consultants.	CBQL	4.70	0.46	2.00	1.10
	GVMN	4.19	0.76	2.18	1.03
	Total	4.44	0.68	2.09	1.07
	Sig.	**0.000**		**0.203**	
Collecting feedback from other members within the school.	CBQL	4.68	0.47	2.67	1.17
	GVMN	4.19	0.73	2.28	1.15
	Total	4.43	0.66	2.47	1.18
	Sig.	**0.000**		**0.010**	
Synthesizing opinions from all internal and external stakeholders evaluating the AE program based on Reggio Emilia approach.	CBQL	4.70	0.46	1.97	1.12
	GVMN	4.40	0.66	2.30	1.07
	Total	4.55	0.59	2.13	1.11
	Sig.	**0.000**		**0.022**	
Developing plans to adjust AE content based on Reggio Emilia approach.	CBQL	4.84	0.37	2.26	1.05
	GVMN	4.81	0.44	2.29	1.17
	Total	4.82	0.41	2.27	1.11
	Sig.	**0.559**		**0.839**	
Adjusting program, content of M, VA, D activities based on Reggio Emilia approach.	CBQL	4.82	0.39	2.28	1.04
	GVMN	4.94	0.24	2.28	1.05
	Total	4.88	0.33	2.28	1.04
	Sig.	**0.004**		**0.978**	
Overall Mean	CBQL	4.72	0.34	2.33	0.85
	GVMN	4.49	0.30	2.22	0.57
	Total	4.61	0.34	2.27	0.72

The survey data from Table 5 show that activities for evaluating and adjusting aesthetic education programs following the Reggio Emilia approach for preschool children in ECE settings were rated as very necessary by both administrators and preschool teachers, with mean scores from 4.35 to 4.88 out of a maximum of 5.0. Among these, the items rated as most necessary are: (1) Adjusting program, content of M, VA, D activities based on Reggio Emilia approach; (2) Developing plans to adjust AE content based on Reggio Emilia approach; (3) Developing forms of assessing M, VA, D activity outcomes by phase; via pedagogical materials; observation, interviews; children's products; displays, etc. This shows the desire of ECE settings, especially CBQL, to adjust AE content following the Reggio Emilia approach and develop forms of assessing AE activity outcomes to better meet the capacities and needs of children when implementing the program to achieve objectives.

Most items in the table showed statistically significant differences between the responses of administrators and preschool teachers (sig. <0.05). In most survey items, administrator tended to rate the necessity level higher than preschool teachers.

In terms of achievement level: Although items in evaluation and adjustment activities were rated as very necessary, the implementation level of these activities only reached an average level (mean scores from 2.09 to 2.47). This indicates that proactively adjusting program content for AE activities has not yet achieved a good level. Most items in the table showed statistically significant differences between the responses of administrators and preschool teachers (sig. <0.05).

The item: "Collecting feedback from teachers, parents, experts after program implementation" only achieved a low level, from 2.09 to 2.35. The data for these three items show that ECE settings have not yet paid enough attention to doing this well,

whereas for program adjustment, collecting feedback from relevant parties is crucial, especially from preschool teachers who directly organize children's educational programs; parents who are very close and understand children's daily progress and changes; experts/pedagogical consultants who are researchers with deep expertise in ECE programs in general and the Reggio Emilia approach in particular. They can provide scientifically based evaluations and judgments, helping schools evaluate and adjust program content appropriately for children after each

year or semester of program implementation. Through these data, ECE settings should pay more attention to collecting feedback after each semester and school year.

4.5. Synthesis of findings on the perceptions of early childhood education administrators and teachers about developing aesthetic education programs following the reggio emilia approach for preschool children in early childhood settings
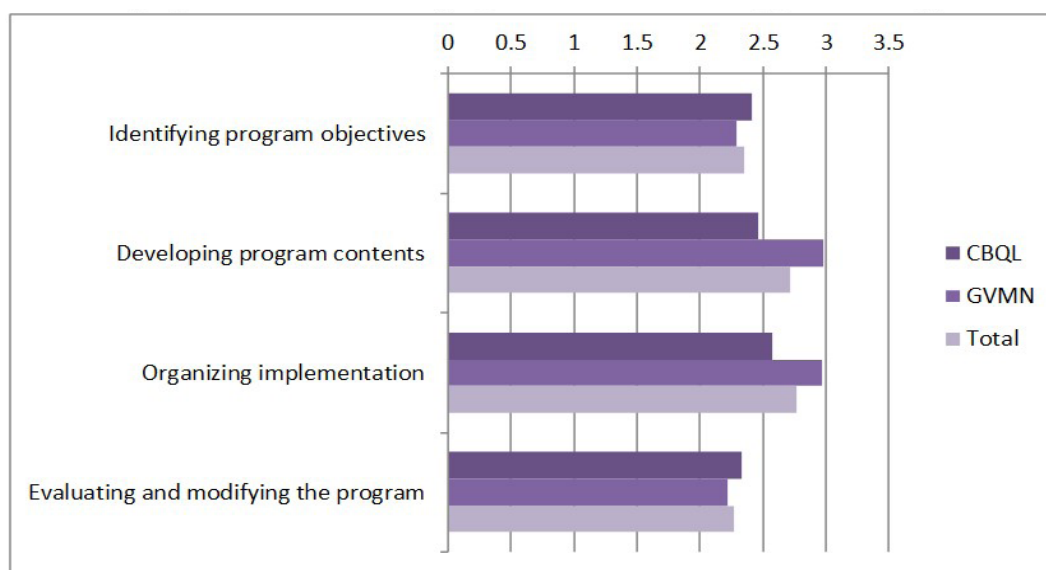
Table 6. Synthesis of findings on the perceptions of early childhood education administrators and teachers about developing aesthetic education programs following the reggio emilia approach for preschool children in early childhood settings.

Content	Group	Level of Necessity		Level of Achievement	
		Mean	SD	Mean	SD
Defining program objectives	CBQL	4.65	0.35	2.41	0.94
	GVMN	4.91	0.22	2.29	0.61
	Total	4.78	0.32	2.35	0.79
Developing program content	Sig.	4.78	0.31	2.46	0.72
	CBQL	4.75	0.33	2.98	0.45
	GVMN	4.77	0.32	2.72	0.65
Organizing program implementation	Total	4.79	0.31	2.57	0.73
	Sig.	4.45	0.42	2.97	0.44
	CBQL	4.62	0.40	2.77	0.63
Evaluating and adjusting program	GVMN	4.72	0.34	2.33	0.85
	Total	4.49	0.30	2.22	0.57
	Sig.	4.61	0.34	2.27	0.72
Overall Mean	CBQL	4.73	0.33	2.44	0.81
	GVMN	4.65	0.32	2.61	0.52
	Total	4.69	0.35	2.53	0.70
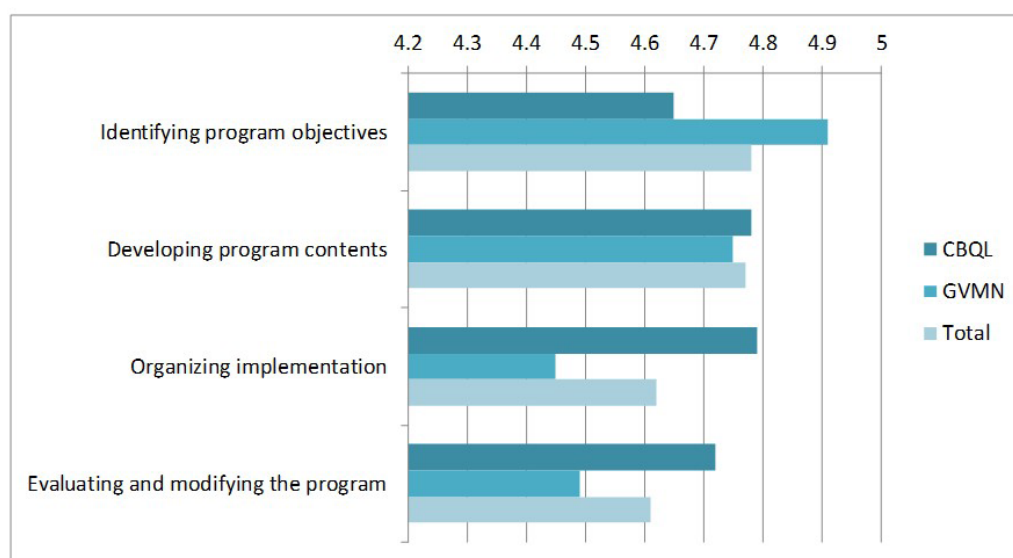
Figure 1. Perceptions of school administrators and preschool teachers on developing aesthetic education programs based on the Reggio Emilia approach

Figure 2. Level of implementation by school administrators and preschool teachers on developing aesthetic education programs based on the Reggio Emilia approach

The survey data in Table 6 show that the overall current status of developing aesthetic education programs following the Reggio Emilia approach for preschool children in ECE settings is rated as highly necessary, with mean scores from 4.61 to 4.78, but the achievement level is only average, from 2.27 to 2.77.

The overall results from Table 6 show that the perception of school administrators and preschool teachers regarding the development of aesthetic education programs following the Reggio Emilia approach is very high, with a mean score of 4.69, reflecting strong interest in innovating education towards child-centeredness and encouraging creativity. Among these, "Defining program objectives" has the highest mean score of 4.78, indicating that this aspect is particularly emphasized in program design thinking.However, the actual implementation level only reaches an average of 2.53, with a significant gap between "perceived necessity" and "achieved level" (Difference = 2.16 points). Notably, "Evaluating and adjusting program" has the lowest implementation score (Difference = 2.27) and is also the content with the lowest perceived necessity (mean = 4.61), indicating that this phase is not prioritized appropriately in practice at ECE settings.

Conversely, "Developing program content," although not having the highest perception score, achieved the highest implementation level (mean = 2.72). This suggests that teachers have a foundation for implementation in this area, possibly due to practical experience with educational themes in the current curriculum. This result reflects a practical trend of "focusing on content, lacking evaluation," a rather common characteristic in program development in countries undergoing educational reform.

Overall, the data from Table 6 show that developing AE programs following the Reggio Emilia approach is positively perceived but is still in the initial stages of practical implementation. There is a particular need to enhance capacities for organizing project-based activities, flexible evaluation, and program adjustment based on multi-stakeholder feedback.

4.6. Discussion

The findings of this study reveal a strong consensus among both early childhood administrators and preschool teachers regarding the necessity of developing aesthetic education (AE) programs based on the Reggio Emilia approach. All four core components—defining objectives, developing content, organizing implementation, and evaluating and adjusting programs—received very high necessity scores (Mean > 4.6), indicating widespread awareness of the importance of child-centered and creativity-oriented education.

However, the study also exposes a consistent and significant gap between perceived necessity and actual implementation. The overall implementation scores for the four components remained in the average range (Mean ≈ 2.27–2.77), pointing to systemic constraints in transforming educational ideals into classroom practice.

Among the components, developing program content recorded the highest implementation level (Mean = 2.72), suggesting that educators are relatively more confident in working with theme-based content, which aligns with existing curricular practices. In contrast, evaluating and adjusting programs scored the lowest (Mean = 2.27), reflecting challenges in conducting formative assessments, gathering feedback, and adapting content—practices that are central to the Reggio Emilia philosophy but still underdeveloped in Vietnamese early childhood settings.

Moreover, data from individual items show that activities requiring project-based planning and cross-stakeholder collaboration (e.g., activity networks, feedback collection from families and experts) remain weakest in implementation, despite being acknowledged as important. For example, items related to organizing AE activities within projects or assessing children's work through observation and artifacts all scored below 2.5.

Statistically significant differences between administrators and preschool teachers were observed in several areas. Teachers often rated the necessity higher than administrators, especially

in areas such as developmental appropriateness and dramatic expression. This disparity underscores the practical insights teachers gain through daily interactions with children, and highlights their stronger orientation toward learner-centered goals.

In light of these findings, the following areas are critical for advancing Reggio Emilia-inspired AE programs in Vietnam:

- *Capacity Building:* There is a clear need to enhance teachers' and administrators' competencies in designing project-based learning, conducting formative assessment, and adapting curriculum responsively. Professional development must go beyond theory, focusing on real-world applications, reflective practice, and collaboration.

- *Systemic Collaboration:* Effective program development calls for a stronger integration of voices—including educators, families, and pedagogical consultants. Feedback loops from these stakeholders are currently underutilized, yet essential for meaningful curriculum evolution.

- *Infrastructure and Policy Support:* Limited access to creative materials, technology, and model learning environments continues to hinder implementation. Strategic investments and supportive policy frameworks are vital to foster conditions that align with the Reggio Emilia ethos.

Ultimately, while the vision for Reggio Emilia-inspired aesthetic education is strongly embraced, its realization remains at an early stage. Bridging the gap between ideals and practice will require coordinated efforts across capacity, policy, and pedagogical culture.

5. CONCLUSION

This study investigated the current status, difficulties, and challenges in developing aesthetic education programs based on the Reggio Emilia approach for preschool children in urban Hanoi, the capital of Vietnam. Based on data collected from 271 school administrators and preschool teachers, the research results show a high consensus on the importance of aesthetic education following the Reggio Emilia approach, especially in nurturing creativity through music, visual arts, and drama activities.

However, the study also revealed a significant gap between the perceived necessity and the actual implementation level of program components. While content related to theme-based development is implemented fairly well, activities related to project-based learning, evaluation, and program adjustment show limited achievement. The study proposes three main directions for improvement:

i. Enhancing the capacity of CBQL and preschool teachers in program development and organizing AE activities within projects;

ii. Expanding collaboration between schools and pedagogical experts to support professional development as well as more effective program evaluation and adjustment;

iii. Improving policies and targeted investments to help ECE settings have suitable facilities, learning materials, and pedagogical resources to implement flexible, creative programs while ensuring achievement of objectives set by the Ministry of Education.

Overall, the research emphasizes the need to build a flexible aesthetic education program development model that is appropriate for the Vietnamese context while preserving the spirit of the Reggio Emilia approach. When supported by appropriate training programs and supportive policies, these efforts can contribute to sustainably and creatively enhancing the quality of early childhood education.

REFERENCES

Aden, F. (2019). *Reggio Emilia and the arts approach: Two exceptional examples of multimodal learning in early years.* University of East London. https://doi.org/10.5038/2577-509X.3.2.1050

Aitken, V. (2013). Dorothy Heathcote's Mantle of the Expert approach to teaching and learning: A brief introduction. In *Connecting curriculum, linking learning* (pp. 34–56). NZCER Press.

Cadwell, L. B. (2018). *The Reggio Emilia educational method* (An Vi, Trans.). Labor Publishing House. (Original work published n.d.)

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

Cutche, A. (2013). *Art spoken here: Reggio Emilia for the big kids.* NSEAD/John Wiley & Sons.

Edwards, C., Gandini, L., & Forman, G. (Eds.). (2012). The hundred languages of children: The Reggio Emilia experience in transformation (3rd ed.). Praeger Press.

Foerch, M., & Iuspa, M. (2016). The internationalization of the Reggio Emilia philosophy. *Revista Contrapontos, 16*(2), 321–350. https://doi.org/10.14210/contrapontos.v16n2.p321-350

Gandini, L. (2012). The Reggio Emilia approach to early childhood education. In C. P. Edwards, L. Gandini, & G. Forman (Eds.), *The hundred languages of children: The Reggio Emilia experience in transformation* (3rd ed., pp. 27–71). Praeger.

Global Embassy. (2019). *Applying the Reggio Emilia educational method in Vietnam.* Retrieved from https://globalembassy.edu.vn/vi/Applying-the-Reggio-Emilia-educational-approach-in-Vietnam

Liunardi, J. (2014). The Reggio Emilia approach to early childhood education: An introduction. *ANIMA Indonesian Psychological Journal, 29*(2), 108–120. https://doi.org/10.24123/aipj.v40i1

Lilly, K. V., & Venukapalli, S. (2021). *Art and aesthetic appreciation in children.* Department of Education, The English and Foreign Languages University, Hyderabad. https://doi.org/10.29322/IJSRP.11.01.2021.p10911

Linda, T., & Brunton, P. (2004). *Understanding the Reggio Approach.* David Fulton Publishers Ltd.

Malaguzzi, L. (2021). *Anno scolastico 2020/2021*. Fondazione Cresci@mo.

Manera, L. (2022). Art and aesthetic education in the Reggio Emilia Approach. *Education 3-13, 50*(4), 483-493. https://doi.org/10.1080/03004279.2022.2052230

Manera, L. (2022b). The Reggio Emilia approach to early childhood education: An analysis of its inclusive perspectives. In *Fostering inclusion in education*. Springer. https://doi.org/10.1007/978-3-031-07492-9_7

Maria, F., & Torruella, M. (2021). Building bridges between museums and schools: Reggio Emilia as a bridge to educate children about heritage. *Journal of Cultural Heritage Management and Sustainable Development, 11*(3), 1–15. https://doi.org/10.3390/su13073713

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.

Ministry of Education Republic of Singapore. (2013). *Nurturing early learners: A curriculum for kindergartens in Singapore: Aesthetics and creative.*

Mukhametshin, A. A., Ushakova, O. B., Mubarakshina, F. D., & Siluyanichev, A. M. (2020). Developing creativity in preschool and school children. *Journal of Global Education Research, 8*(12A), 7741–7747. https://doi.org/10.13189/ujer.2020.082561

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.

Rinaldi, C. (2006). *In dialogue with Reggio Emilia: Listening, researching and learning*. Routledge.

Smith, A. P. (2007). The incorporation of principles of the Reggio Emilia approach in a North American pre-school music curriculum: An action research. *Visions of Research in Music Education, 17*, Article 4. https://opencommons.uconn.edu/vrme/vol17/iss1/4

Trịnh, T. X., Nguyễn, V. A., & Lê, T. B. (2021). *The Reggio Emilia approach in early childhood education* [Phương pháp tiếp cận Reggio Emilia trong giáo dục trẻ nhỏ]. Ministry of Education and Training – Project 33.

Vecchi, V. (2010). *Art and creativity in Reggio Emilia: Exploring the role and potential of ateliers in early childhood education.* Routledge.

Wingert, P. (1991, November). The best schools in the world. *Newsweek.*

Wurm, J. P. (2005). *Working in the Reggio Emilia way*. Redleaf Press.