

**Analysis on the Montessori Approach in Selected Private Schools in Antipolo City**

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# OUR LADY OF FATIMA UNIVERSITY



ANTIPOLO CAMPUS

## ENDORSEMENT

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**CERTIFICATE OF ORIGINALITY**

This is to certify that this research paper was originally constructed by the researchers, with the guidance of the professionals who helped to acknowledge, review, and approve this research. This research paper does not contain any material previously published or written by another person nor material that has been accepted for the award of any degree or diploma in Our Lady of Fatima University - Antipolo and other higher educational institutions.

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### **Abstract**

This study examines Maria Montessori's Montessori educational approach, which is of significant importance as it emphasizes hands-on and independent learning through five core principles: Practical Life, Sensory, Language, Numeracy, and Culture. These principles are not just integral to the Montessori teaching style. However, they also play a crucial role in promoting holistic development in children, making the Montessori educational approach a key player in education.

The research, which involved respondents from two Montessori schools, was conducted with a rigorous methodology. Two participants from School A and three from School B were interviewed using the same questions, ensuring data collection consistency. The aim was to explore how the Montessori principles are implemented and their impact on children's learning and development. The findings revealed that both schools engaged children in daily activities designed to foster learning at an individual pace.

The researchers concluded that the Montessori Theory effectively fosters independence, confidence, and practical skills among students. However, the study also revealed a significant gap in the use of technology. In today's rapidly evolving digital landscape, Montessori schools must integrate digital tools and collaborate with other institutions. This integration will enhance global awareness and cultural understanding, enrich the Montessori educational experience, and prepare students for a connected, digital future.

*Keywords: Montessori Theory, Maria Montessori, Hands-on Learning, Independent Learning, Practical Life, Sensory, Language, Numeracy, Culture*

## 1.0 Introduction

The Montessori educational approach promotes empathy, compassion, and an understanding of humanity's interdependence and interconnectivity. Children are encouraged to study and explore the world and its people by beginning with excellent lessons that lay the groundwork for all later instruction. An article published in *Frontiers Psychology* in 2021, focusing on indicators of students' long-term psychological health and well-being, presents additional evidence that a Montessori education may outperform traditional educational techniques.

Maria Montessori, an Italian physician, educator, and pioneer known for her teaching style based on how children naturally learn, opened Rome's first Montessori institution, the Children's House or Casa dei Bambini, on January 6, 1907. She then traveled the world and authored in-depth articles about her teaching method, which contributed to the rapid rise in Montessori schools over the last few decades. The study was initiated to address the growing interest and demand for Montessori education in the Philippines and to provide a detailed observation of its practical application and outcomes. By doing so, the researchers hope to support the continuous improvement of educational practices and contribute to developing innovative teaching methodologies in the Philippines.

The fact that many daycares and schools that identify as "Montessori Schools" do not follow the Montessori philosophy or employ certified teachers is one problem with Montessori education, according to a citation in the newsletter by Mader (2018). Using the label "Montessori" to differentiate oneself from competitors and charge more is a common (although unethical) revenue-generating strategy for childcare establishments. This makes it difficult for parents to discern between daycares and schools that claim to be Montessori.

This study seeks to improve the quality of Montessori education in the Philippines. As elucidated by Bolaños (2023), Montessori education offers various advantages centered around the "Follow the Child" philosophy. This approach ensures that activities and lessons are meticulously designed to foster a child's holistic development, covering social, emotional, and physical aspects, not solely intellectual growth. Moreover, it allows students to pursue their interests and inquiries within the framework established by their teachers, promoting active learning and cultivating traits such as self-control, self-discipline, and motivation.

This research is intended to significantly promote Montessori principles in early childhood education across the Philippines. By highlighting these principles' benefits and practical applications, the study aimed to support schools' mission to create high-quality, inclusive learning environments for young children. Embracing Montessori principles can nurture comprehensive development, fostering cognitive, emotional, and social advancements, ensuring every child receives a nurturing and practical educational experience.

## **2.0 Background of the Study**

### *2.1 Theoretical Framework*

This study was grounded on Maria Montessori established the Montessori Theory, a teaching technique whose primary concepts include independence, observation, environmental preparation, and an absorbent mind. —which impacted this study. Montessori has five fundamental principles: Practical Life, Sensorial, Language, Numeracy, and Cultural. Practical Life emphasizes developing fine motor skills and independence through actual life tasks. These tasks include pouring, cutting, and sewing. The Sensorial principle helps the child develop their five senses: touch, smell, taste, hearing, and sight. This makes use of activities like matching and sorting items. Language aims to improve the child's reading and writing skills through storytelling and phonics-based modules. Numeracy focuses on understanding numbers and quantities through learning and applying basic arithmetic operations on Montessori materials. Lastly, the cultural aspect introduces different cultures, history, and geography through map work, cultural festivals, and other similar activities. This research investigation focuses on the Montessori pedagogy, which has proven extremely beneficial in recent decades.

According to a Montessori education logic model by Culclasure et al. (2019), the use of authentic, hands-on materials, the freedom to choose activities, and peer collaboration are expected to lead to various positive social and personal outcomes. Research on child development and its implications for educational settings (National Academies of Sciences, Engineering, and Medicine, 2018; Darling-Hammond et al., 2019) suggests that attending schools with Montessori elements, such as collaboration and interest-based learning, should enhance well-being. The researchers aim to determine whether the establishment of such schools is driven by current trends or a genuine commitment to the Montessori philosophy.

## *2.2 Review of Related Literature*

This chapter presents the literature and studies identified during the researchers' thorough investigation. It underscores recurring themes and recommended practices, with a primary emphasis on the application of the Montessori method in Philippine schools. The review reveals that international literature contains more research findings compared to domestic sources. It is evident from the research that the Montessori philosophy has the potential to enhance and equalize educational outcomes for children.

In the Philippines, there is a growing interest in Maria Montessori's pedagogy and its potential to encourage lifelong learning, particularly in light of the country's continued socioeconomic inequality and instability. (Kilag et al., 2023). According to Lillard (2021), a Montessori curriculum improves childhood and adult well-being by emphasizing self-determination and meaningful activities. There has been research on Montessori pedagogy and its ability to support lifelong learning, albeit there are some limitations. Many of the studies on this topic have been small-scale, thus larger-scale studies are needed to provide additional proof of the efficacy of this method. It is vital to examine how Montessori's technique can be adjusted and utilized in the unique Philippine setting, taking cultural, sociological, and economic factors into account (Ajibade et al., 2022). Despite these shortcomings, the potential for Montessori methodology to facilitate lifelong learning in the Philippines is becoming more apparent. According to current research, the Philippines has a wonderful opportunity to enhance lifelong learning by implementing the Montessori approach. However, further research is needed to identify how to best use and alter this method in the unique Philippine environment, as well as to assess its effectiveness in supporting lifelong learning. (Kilag et al., 2023).

Tariman and Agrado (2022) conducted a study that defined the Montessori technique of preschool education at Naga City's Educare program to improve the program's alignment with the Montessori approach. Using a combination of qualitative and quantitative research methods, they investigated how closely the Educare program adhered to the Montessori approach principles of prepared environment, procedures, outcomes, and institutional design. Quantitative research analyzed and computed data derived from Montessori method criteria. To summarize the findings of this study, the Educare program aligns with the Montessori approach in terms of subject matter delivery, interactive discussion, and teaching strategies that impact children's academic performance.

Based on the journal article from Debs (2022), Montessori education is unique in that it is conducted in 154 nations worldwide. Because there is no Montessori trademark or thorough oversight authority, the Montessori technique is routinely dispersed and divided among rival organizations. Because of a lack of centralized, precise, and consistent accounting, it has been difficult to document the extent, growth trends, and unique types of students served by Montessori schools. The major goal of this study was to collect evidence that would allow us to accurately estimate the number of Montessori schools globally. This statistic is based on the broadest parameters of a Montessori curriculum.

According to Ramadahn (2023), the Montessori approach is beneficial to pupils since it encourages independence by allowing them to learn at their own pace and explore and enjoy themselves without restraint.

### *2.3 Variable Discussion*

#### *2.3.1 Practical Life*

Siswanto and Kuswandono (2020) conducted a study in the Pioneer Montessori School Kindergarten to Understand how practical exercises are developed. This study combined a descriptive strategy with a qualitative approach. The study's participants included one principal and two educators who worked in toddler and nursery classes. Seven (7) toddlers, ages 4-5, were present. The study's findings are divided into four key components: (1) activity process, (2) cognitive ability, (3) science ability, and (4) art skill. To accomplish the practical life activity, the teacher followed three steps: (1) recognize, (2) exhibit, and (3) remember.

The research of Ngoc (2023) revealed that engaging in activities in everyday life involves all parts of one's existence. The youngster sees these actions in the surroundings and learns from the experience of actively completing life skills—participating in daily life with us. Through practical experience, the child learns about his culture and what it means to be human in environmental care. Learning how to clean is essential in the Montessori classroom. These activities are arranging the table, washing the cutlery and dishes, sweeping the floor, dusting the bookcases, hydrating the plants, and wiping up spills. According to

Sophia & Linebarger (2016), the study presents Montessori's principle of personalized learning, which results in different aspects, such as using personal items as transitional objects

for the child to confidently and independently enter the room without them. Also, the children were engaged and provided with different materials and activities.

The study by Sophia and North (2022) noted that self-care activities include dressing and undressing, wiping their nose, and preparing snacks. In addition to that, a dressing frame activity is provided. These activities help the students experience and perform the actual work, such as dressing frames with large buttons. Additionally, this study mentioned that lessons in practical life develop the child's independence and responsibility. In addition, the children were calmer and more focused while doing their work. Practical life exercises were provided as well, and it is noted that lessons were done during morning sessions. The following are practical life lessons: carrying a tray, walking down the line, spooning, hand cleaning, and grating cheese.

Russell (2014) said children's connection to the environment is innate. He provided sensory materials such as seeds for planting, watering, and caring for the plants. In addition, the study mentioned using journals to record the children's observations of nature.

Additionally, hands-on skills are significantly crucial for becoming a successful professional. Nowadays, students show the slightest interest in practical practice for various reasons. These practical practices encourage peer-support learning (Phadke, 2019).

Moreover, Thi's (2023) study focused on evaluating evidence supporting the use of life fields in Montessori education and recommendations for useful life activities in Vietnam's early childhood education programs. The paper examined the body of evidence in favor of the method, with the dual objectives of promoting further research and helping educators comprehend the possible advantages and justifications for Montessori education. According to the study's findings, children's development of fine motor skills is an important and ongoing milestone. Practice these Montessori fine motor exercises while respecting your child's individuality and discipline. These jobs have intrinsic value when taken seriously and presented as feasible, significant challenges. When someone does it themselves, it is not "just" getting dressed or "just" juicing an orange. The child is learning to independently pursue a complex motor sequence to satisfy his or her needs and wants.

Furthermore, an action research project by Boesenberg (2023) A one-time parent education session centered on emotional coaching and social-emotional development was evaluated for its impact on improving children's independence at a small, private Montessori

preschool. Over five weeks, both parents and teachers assessed the children's ability to manage tasks independently, both at home and in the school environment. The results indicate that even in settings where parents are already taught practical strategies to foster their children's independence, providing them with guidance on supporting their children's emotional needs offers additional benefits.

### *2.3.2 Sensorial*

According to Saha and Adhikari (2023), Montessori education begins with exploration, which uses all of the senses to improve a child's knowledge, including sounds, tastes, scents, forms, colors, and textures. Practical life and sensory experiences can assist young children develop manipulative abilities, eye-hand coordination, and thinking and problem-solving skills by allowing them to learn autonomously with their senses while being guided by the teacher. Additionally, the goal of sensory is to improve how the child perceives different things through repetition practice. One of the most famous Montessori tools is the Pink Tower. This material has a set of 10 pink cubes in different sizes, from largest to most miniature cubes. Children would pick the giant cube and toss the pink cubes onto the green carpet, then start to build the tower again.

The Montessori Children's House is a mixed-age classroom where young children can learn from older children. It leads and supports younger children so that they can master their education. Sensory motor exercises such as sight, hearing, taste, smell, visual discrimination, and movement can teach students how to receive information and participate in daily activities. Sensory integration devices such as fidgets, mouth tools, rocking and bouncing tools, and noise-blocking headphones are reported to assist children settle down and enhance their focus inside the classrooms, allowing them to witness the results of their behaviors while focused on classroom work. Montessori materials are tools designed to help children organize and recognize objects they encounter in their everyday lives through their senses (Marshall, 2017).

According to Murray and Culclasure (2021), before the pandemic, Montessori education started considering using digital tools in its teaching method. The Montessori approach focuses on hands-on and real-world activities. Teachers are opposed to using technology under age 6, while elementary children have limits when using it inside the classroom.

The Brown Prism, or the “Brown Stairs,” is a Montessori material with ten brown wooden rectangular prisms. It helps the child differentiate between the thickest and thinnest (Ahlquist & Gynther, 2019).

The purpose of Pink Tower is to let the child play at their own pace by manipulating the materials and then arranging the cubes according to their sizes. Once they have done the pink tower, they will repeat the same routine as they had done (Ramya, 2020).

### 2.3.3 *Language*

Margaret (2020) believes that language serves as "an instrument for collective thoughts" rather than reading a book or writing letters, therefore Dr. Montessori's research is encouraging. Montessori discovered that all pupils could learn with sound symbols if each multimodal sound was represented by a Sandpaper letter. When first encountering the movable alphabet, children change the visual representation of each letter. The Movable Alphabet consists of cut-out letters including blue vowels and pink or red consonants. During the five-week study, parents and teachers assessed children's task independence and self-management at home and school, respectively with these items, children may express their feelings even before they've mastered the use of a pencil and paper. Reading is an activity that makes them happy and comfortable. As a result, Montessori early childhood schools have developed a variety of reading techniques to assist children with writing and reading in English.

Ildiz (2018) found that the Montessori technique is a popular alternate option for teaching students. A pupil is assessed using the Montessori technique. Linguistic instruction is an essential part of the Montessori educational model. Furthermore, it was proposed that a child's natural cognitive ability and external circumstances play an important influence in their learning of language skills. Experimenting with various environments may improve this talent. Even though it can be difficult for pupils to adjust to new language abilities, the Montessori method of language training is built on the premise that students can achieve in other areas, as well as reading, writing, singing, and speaking, if they have the potential and skill set.

Based on Ryan's study (2015), using sandpaper letters allows the child to explore sensory experiences such as the sense of touch. He also stated that children enjoy working with sandpaper letters even though they know the sound of the letters. In addition, the opportunity has helped the children practice the skills of writing and recognizing the letters of the alphabet and their sounds.

Furthermore, a study by Zavala (2022) emphasized that helping children develop their language skills are the foundation for positive social interactions and well-developed communication skills.

Circle time contents vary by school and teacher wherein preschool circle times include the following elements: reading aloud, general chat, songs and fingerplays, calendar work, weather discussions, sharing time, and closing activities. To enhance student participation, circle time activities must be carefully planned (Bustamante, 2018).

When applied appropriately, the Montessori method can improve the children's academic, behavioral, and socioemotional outcomes. To generate extensive evidence to support an established theory, researchers must continue to examine these and other findings. Being aware of the Montessori method and possessing the appropriate tools for assessing its impact on children's behavior, as noted by Culclasure (2018). The Montessori method's logic model was created to clarify how ideas were established, how they were applied in classroom activities, and why these activities were especially beneficial to the children. The regulated schedule, work cycles, independence, self-correction, confidence, and active participation in group activities that define Montessori education illustrate its fundamental ideas.

#### *2.3.4 Numeracy*

Faryadi (2017) investigated whether the Montessori learning system improved kindergarten students' mathematical ability, critical thinking, and problem-solving abilities while also training them to be responsible learners. The study included observational, qualitative, and quantitative approaches. The study's sample size comprised 180 kindergarten pupils from TadikaBestari Al-Hidayah in Bandar Seri Damansara, Malaysia. Data were collected using field observations, interviews, and questionnaires. Pre- and post-test results showed that children who used the Montessori methodology, or the experimental group

outperformed their peers who did not use the method (72.2%) and (39%). The results demonstrated that the Montessori technique enhanced pupils' mathematical skills. This study will inform future research on non-traditional teaching methods, particularly for young children.

Furthermore, Hallumoglu et al. (2021) examined how Montessori-based math education materials influence young children's mathematical thinking skills. This experiment used pre- and post-test control group designs. The experiment involved thirty preschoolers, with fifteen in the experimental group and fifteen in the control group. The experimental group receives mathematics teaching using Montessori materials, whereas the control group receives mathematics instruction based on the 2013 Preschool Curriculum.

Data was collected using the Mann-Whitney U Test, with gender and reasoning skill variances taken into consideration. The "Evaluation Tool of Early Mathematical Reasoning Skills" was used for the pre- and post-tests. The data collected supports the study's initial hypothesis—that "Montessori materials- supported mathematics instruction has an impact on the development of early mathematical reasoning skills." Lillard (2017) stated that children act totally on their interests, desires, and orientations when engaging with Montessori classroom resources, including direct and indirect concept acquisitions.

Several studies underscore the benefits of using tangible materials in mathematics education. Firstly, Casey et al. (2016) present compelling evidence supporting using concrete materials, such as color bead sets, to enhance children's understanding of numerical concepts. The research underscores the pivotal role of tangible representations in early numerical education, emphasizing their contribution to children grasping fundamental mathematical principles, particularly the cardinal principle.

Additionally, Carbonneau and Marley (2015) suggest that using tangible materials significantly improves children's comprehension and retention of numerical concepts. This improvement stems from the physical interaction and manipulation these materials afford students, fostering a deeper understanding of mathematical principles through hands-on experiences.

Furthermore, Boaler (2016) emphasizes that manipulatives can significantly enhance students' understanding and retention of mathematical concepts by providing a concrete

foundation for abstract ideas. This approach enables students to engage physically with the material, achieving a more profound and enduring comprehension of mathematical principles.

Moreover, Marshall (2017) explores how numeracy math materials, such as classification activities, support cognitive development and help children make sense of their environment. Engaging systematically with these activities enhances children's understanding and interaction with the world, fostering critical thinking and essential cognitive skills.

Osman et al. (2016) highlight the effectiveness of visualization techniques, such as bar model visualization, in enhancing students' conceptual understanding of mathematical problem-solving. Visual representations facilitate easier comprehension of problem-solving processes and encourage critical thinking about potential solutions.

Additionally, Benson-O'Connor et al. (2018) emphasize the role of math journals in enabling students to articulate their understanding of mathematical concepts and address gaps in their comprehension. By incorporating pictures and real-life scenarios, these journals aid in comprehending problem-solving strategies.

McDonough (2016) argues that manipulatives are an instructional method that cultivates critical thinking and encourages students to take ownership of their learning.

According to Lange (2021), integrating manipulatives into math education leads to greater student engagement and better mathematical skills.

Lastly, Li et al. (2023) proposed that scaffolding for self-regulated learning (SRL) enhances academic performance and learning processes. Their study explores various aspects of SRL scaffolding, including its enduring effects on student perseverance.

### *2.3.5 Cultural*

The literature study of D'Cruz (2022) analyzed the importance of culturally sustainable activities in public Montessori schools. This study defines culturally sustaining practices as any educational system or framework that emphasizes children of color's racial and social identities, as well as the effort required by educators to establish these practices. The author proposed that combining culturally sustainable practices with the Montessori method will result in more humanizing and uplifting school experiences for Montessori families and educators by focusing

on the experiences of children of color in public Montessori education in the United States. The literature revealed the following themes: the racial and economic challenges that public Montessori faces in the United States; the diverse experiences of Montessori students of color; the need for more social justice and culturally sustaining practices; and aspects of existing culturally sustaining practices in Montessori. The paper concludes with recommendations for school and Montessori teacher education.

A study by Soydan (2020) conducted extensive research on techniques for sparking children's curiosity utilizing the Montessori method, widely recognized as a modern educational approach.

Participants in this study are ten female preschool instructors who work in Montessori schools in Germany. The study data was acquired through qualitative research methodologies. A descriptive-analytic method was employed to examine qualitative data. The study found that Montessori teachers use the principles of sensitive observation, prepared environment, free choice, specific attention, attention polarization- concentration, and sensitive phases to arouse children's curiosity.

Furthermore, Misheva (2020) examined the progression of environmental education, which has become a significant focus in Bulgarian educational policy and secondary schools. The main efforts revolve around integrating and encouraging eco-friendly activities for students of all age groups. The study explored innovative methods to inspire and broaden activities related to sustainable development and environmental protection, analyzing new approaches with similar objectives and offering specific models for implementation. Additionally, the research provided a comprehensive overview of Maria Montessori's approach to environmental education, particularly through the use of geography lessons to integrate environmental education among students. It is suggested that applying key principles of the Montessori method will not only improve the practice but also greatly enhance student engagement.

Additionally, Yonezu (2018) studied the history of Montessori education and provided insight into the growth of early childhood education in Japan. From its conception in the 1910s to the present day, the Montessori system of education has received both praise and criticism. However, there have been three major periods of thought and practice over this time. The first stage (1910s-1930s) saw Montessori Education gain popularity due to its promise of early education and novel teaching methods that encouraged children's freedom. Nevertheless, the

method swiftly lost popularity as other educators pointed out the weaknesses in Montessori's philosophy. During the second stage (1930s post-World War II), interest in the method progressively increased, and several Montessori Method publications released in Europe and America were translated into Japanese. The third stage (1950s-present) witnessed the so-called "Montessori revival," which reintroduced the technique into the consciousness of many educators. Numerous original publications were translated, new Montessori studies were published, and the number of Montessori kindergartens and nurseries increased. Kristiyani (2018) studied the environment and resources through Montessori educational concepts. The atmosphere and contents are appropriate for all sorts of learners and can thus be used in an inclusive education context. Montessori-based teaching tools are appropriate for students of all ages and address all of their requirements.

Moreover, Leonard's (2015) paper charts the child's increasingly global environment and feeling of citizenship as they progress from elementary to adolescence. He observed that an introduction to the local history and geography of one's surroundings gives a framework for learning geography in elementary students. According to Leonard, "We have to know and understand a lot about many different places and people so we can easily adapt wherever we go." Montessori believed that by immersing children in the natural world, they would develop "a deep feeling for the interdependencies of nature" (Leonard, 2015). This global feeling of the cosmic interplay of all life on Earth leads to an understanding of human interdependence, which improves one's sense of belonging to a place and the flow of life. The elementary child requires two environments: the classroom and the world outside, "the world of nature and the society of his particular region and country" (Leonard, 2015). The adolescent researched his local place, the town, the county, and the bioregion, gaining security and community awareness by engaging in real-world community service. This foundation, together with studies in different languages, cultures, and religions, is essential for understanding global civilization.

## **2.4 Objectives**

This study aims to determine if Montessori instruction in a subset of Antipolo City's private schools adheres to the essential teaching concepts of the Montessori method, which are Practical Life, Sensorial, Language, Numeracy, and Cultural. These fundamental principles will be applied to the interview questions, with the following specific objectives:

To identify whether the practical life curriculum used in Montessori classrooms contributes to the child's development in terms of individual engagement in real-world and daily activities.

To identify whether the Montessori approach's sensorial curriculum is being used to reinforce the five senses and teach students how to discriminate, classify, and compare.

To identify whether the child's reading, writing, and communication skills are developing and improving via the use of the Montessori language curriculum.

To identify the level to which Montessori numeracy teaching methods are used, such as participatory strategies, math learning tools for sensory experiences, and organized learning spaces.

To identify whether the culture curriculum in Montessori classrooms is used to assist children in comprehending their community, world, and social responsibilities.

## **2.5 Problem Statement**

The study sought to assess the extent to which the Montessori approach's essential elements, such as practical life, sensory, language, numeracy, and culture, are applied to the Montessori approach, as well as how teachers implement and use the Montessori method in their teaching.

1. How do schools encourage practical life among their pupils using the Montessori approach?
2. What sensorial materials and activities do the schools provide to cater to the children's sensorial development?
3. How do schools use the Montessori approach to integrate phonics, comprehension strategies, and language exercises in classrooms?
4. In what ways does the Montessori approach of using math learning tools for sensory experiences support the numeracy development in children?
5. How is the Montessori method used to assist children develop an understanding of their community, the world, and social responsibilities?

### **3.0 Research Methodology**

#### *3.1 Research Design*

The Montessori technique was studied in selected private schools in Antipolo City utilizing a qualitative research methodology that included structured interviews. This strategy was chosen to systematically collect thorough data and supporting documentation from participants while remaining consistent with the study's aims. The standardized nature of the interviews meant that all participants were asked the same set of basic questions, allowing for more consistent data collection.

#### *3.2 Research Locale*

Antipolo City provided a diverse urban setting that reflected broader educational trends and challenges in the country; by focusing on selected private Montessori schools in this area, the research aimed to understand how Montessori principles were implemented and how they could be further optimized to serve the community better. Conducting the study from January 2024 to June 2024 ensured a comprehensive analysis over a significant period, capturing the consistency and effectiveness of Montessori practices. The insights from this study will help enhance educational strategies in Antipolo and potentially be applied to other regions, ultimately improving quality and inclusive education in the Philippines.

#### *3.3 Key Informant Selection*

The study's target population was Program Heads, Principals, and Teachers employed at Montessori schools. Consequently, only the Program Heads, Principals, and Teachers working at Montessori schools in Antipolo City were eligible to participate in the interviews based on the criteria for selecting informants.

#### *3.4 Research Ethics*

The study adopted the following fundamental research ethics: 1) informed consent, where schools are aware of the goal of the study, the types of data that will be collected, and how those data will be used and reported. 4) privacy to protect the school's identity and location; 5) anonymity and secrecy, which protects the intellectual property of honoring the school's name and location; and 2) beneficence, do not hurt. The researchers considered the ethical concerns of this investigation to conduct the study using proper criteria. Sincere observations will be

made, and the researchers will remain objective in ignoring this fact. Before utilizing the information for any reason, both the school and the individuals' approval will be obtained. Confidentiality will be strictly maintained to protect the school's privacy. Their identity will not be disclosed unless they explicitly consent. As a result, the moral component of the research will be carefully pursued throughout this study.

### *3.5 Research Instruments*

The researchers created a structured questionnaire for this study to assess how well the Montessori method is being applied in different domains of classroom education. The questionnaire was designed to assess adherence to Montessori principles, including practical life skills such as cooking, gardening, and peaceful communication; sensorial activities involving aspects like color, texture, and shape; Montessori language literacy methods encompassing reading, writing, and social responsibilities; interactive techniques utilizing materials such as beads, symbol cards, puzzles, and wooden blocks for numeracy instruction; and cultural activities promoting community engagement and global awareness.

### *3.6 Data Collection*

The following are the methods that were used to collect data for the study. Before starting the study, the researchers wrote a request letter to the principals of the participating schools. The researchers were required by the schools to submit interview questions ahead of time. After assessment and authorization, the researchers got permission to speak with teachers at selected private Montessori schools. Granted permission, the researchers personally administered the interviews, which lasted 10-15 minutes, to ensure reliability. The interviews were voice-recorded to capture detailed responses and provide a comprehensive analysis. There was an assurance that the answers would be kept completely private for the schools and teachers.

### *3.7 Data Analysis*

The data from the interview is validated in this study through the application of thematic analysis. Researchers can develop new concepts and insights from the data with the aid of thematic analysis by employing a flexible approach to qualitative analysis, thematic analysis gives a flexible approach to data analysis.

The researchers used thematic analysis to look for reoccurring themes in the responses provided by the respondents. The process begins with familiarizing the gathered data by involving the audio recording and reading the transcription data. Second, code the data. This is usually a sentence or phrase describing the data's content. Third, generate themes where the researchers look over the codes created. They identify the patterns among them and come up with themes. It was done by combining the codes to form a single theme for each key area. Fourth, review themes to ensure they accurately represent the overall data, and, if necessary, afterward, the themes are defined and named. This step outlines the formulation of the exact meaning of each theme to be easily understood. Lastly, write up the data analysis. The narrative report must include an introduction, methodology, structured interviews, and the results.

#### **4.0 Results and Discussion**

The informants' responses to the interview guide questions are provided in this chapter. The informants' answers were gathered to analyze and aimed to provide a deep understanding of Montessori teachers regarding the fundamental principles. The informants were composed of one (1) Program Head, one (1) Principal, and three (3) Teachers teaching in Montessori schools. All five (5) of the informants are educators in the Philippine province of Rizal's city of Antipolo.

Following the data analysis, the following themes showed up: Cultivating Independence through Daily Engagement, Fostering Independence through Nature Connection Activities, Enhancing Learning through Hands-On Activities, Promoting Comprehensive Development through Hands-On Sensory Activities, Nurturing Language Skills through Hands-On Activities, Building Social Skills through Interactive Activities, Facilitating Mathematical Skills through Hands-On Materials and Problem-Solving, and Exploring Geography and Cultures through Comprehensive Tools and Social Responsibility. Categories characterize each theme. This study sought to ascertain whether Montessori teachers in selected Antipolo City private schools follow the fundamental teaching principles of the method, which include practical life, sensorial, language, numeracy, and cultural.

##### **Program Head**

The Program Head from Montessori School in the City of Antipolo, Rizal Province, Philippines, has been in service for 25 years and is currently the Program Head of the Preschool Department. The first fundamental principle of the Montessori practical life curriculum focuses on real-life activities and nature connections, which help children develop essential life skills

and environmental consciousness. The Program Head said, "*Montessori Practical Life Curriculum is designed to develop a child's sense of independence by providing them with activities relevant to their daily lives.*" Activities such as dressing, buttoning, tying shoelaces, and other self-care tasks are fundamental in promoting autonomy among children. The second Montessori key principle of Montessori Sensorial activities and materials in Montessori education significantly enhance children's sensory and cognitive development. Program Head noted, "*Colors and shapes are incorporated in the student's exploration of the different materials,*" indicating the use of specially designed materials for sensory development. The third fundamental principle, the Montessori approach to language literacy, effectively develops children's reading, writing, and communication skills. Additionally, the development of communication skills is emphasized through various activities. "*Through conversations, stories, songs, and rhymes, children develop vocabulary, comprehension, and communication skills,*" says the Program Head. The fourth fundamental principle, Montessori numeracy education's use of tangible and interactive materials significantly aids in children's understanding of mathematical concepts. The Program Head explained, "*Materials such as beads, to be precise, the color bead set, represent a correct or concrete picture of the numerical concepts.*" This hands-on approach allows children to manipulate objects physically, making abstract ideas more concrete and understandable. The fifth fundamental principle, the Montessori approach to cultural awareness, involves teaching children about the world around them through comprehensive and interactive materials. The Program Head stated, "*Specially provided materials such as the globe and the seven-continent wood puzzles are used to introduce the seven continents.*" Using maps, globes, and cultural artifacts in the classroom allows children to explore different cultures and develop an appreciation for diversity.

### **Principal**

The Principal from Montessori school in the City of Antipolo, Rizal Province, Philippines, has been in service for ten years. The first Montessori fundamental principle, Montessori practical life curriculum activities are crucial for fostering independence and self-reliance. The Principal pointed out, "*Practical Life is a foundation for an independent and happy individual,*" underscoring the importance of these tasks in fostering lifelong independence. The second Montessori fundamental principle, Montessori Sensorial activities, and materials in Montessori education, helps the development of the five senses. The principal mentioned, "*Sensorial Exercises are those about the development of the five senses. Through experiences with sensorial materials, children will learn to comprehend and classify the*

*world around them.*” The third fundamental principle of Montessori is language literacy, which helps children become confident communicators and creative thinkers. The principal added, *“An alphabet was created that we use today that helps students develop good communication skills through writing, letter mastery, reading, storytelling, and drawing.”* The fourth fundamental Montessori principle, numeracy education, supports mathematical understanding and problem-solving. Furthermore, the Principal said, **“Use of beads, blocks, puzzles, and number cards are very useful to enhance students' mathematical comprehension and problem-solving.”** the fifth Montessori fundamental principle, the **Montessori approach to cultural awareness**, uses real-life stories to teach social responsibility and empathy. The Principal stated, **“The teacher will present true-to-life stories about people around the world, continents, and other countries.”**

#### Teacher A

Teacher A from Montessori School in the City of Antipolo, Rizal Province, Philippines, has been in service for one year, teaching in the Preschool department. The first fundamental Montessori principle, the Montessori practical life curriculum, also aims to create a nurturing and supportive learning environment. Teacher A said, *“Montessori practical life helps the child show a sense of independence and responsibility through constant learning and experience of these daily practical life activities.”* The second fundamental principle of Montessori Sensorial activities and materials in Montessori education emphasizes hands-on activities and daily practice, ensuring that children continuously develop these skills. Teacher A added, *“The good thing about the Montessori approach in introducing shapes and colors to the children is that they are specially designed materials that allow them to recognize the shapes and colors by touching and looking at concrete shapes and colors.”* The hands-on nature of these activities allows children to physically engage with concepts of size and weight, reinforcing their learning through practical experience. The third Montessori fundamental principle, the Montessori language approach, fosters comprehensive language development that supports individual and social growth by focusing on phonetic awareness and incorporating interactive group activities. Teacher A noted, *“Some of the school's programs are music and movement, role-playing, show and tell, and dress-up day. These can help develop the student's communication skills.”* Their role in enhancing socialization skills further highlights the importance of group activities in language development. The fourth Montessori fundamental principle, Montessori numeracy education, also emphasizes the importance of hands-on experiences in developing mathematical understanding. Teacher A mentioned, *“These*

*materials are tangible and help children understand and grasp the numerical concepts in a concrete picture."* The hands-on experiences ensure that children internalize mathematical concepts through active manipulation and engagement. The fifth Montessori fundamental principle, the Montessori approach to cultural awareness, is to learn about various countries and their unique characteristics; children develop a sense of respect and empathy for people from different backgrounds. Teacher A added, *"Montessori curriculum arouses the interest and curiosity of the students to learn about the bigger world through cultural life."*

### Teacher B

Teacher B from Montessori School in the City of Antipolo, Rizal Province, Philippines, has been in service for nine years, teaching in the Preschool department. The first fundamental principle of the Montessori practical life curriculum emphasizes independence and responsibility. Teacher B says, *"Helps the child to become independent and responsible by doing daily activities like daily routine."* which highlights that practical life activities in Montessori settings also involve maintaining cleanliness and personal responsibility. The second fundamental principle of Montessori is that Sensory materials are designed to recognize colors and shapes. Teacher B says, *"By using crayons to feel and shade the trace shapes. As you can see, we have different materials"*. She added, *"These are materials that we use for them to recognize the shape, recognize the colors. Aside from pictures."* The third Montessori fundamental principle, the Language curriculum, highlights phonemic awareness. Teacher B noted, *"I integrate phonics and comprehension strategies. Children learn the sounds of letters through songs. So, in introducing the letters to the students, I use songs like ABC or something like that. The second is the sounds"*. The fourth Montessori fundamental principle, the Numeracy curriculum, enhances the problem-solving skills of the child. Teacher B stated, *"They can easily understand the problem solving by use of pictures. Moreover, at the same time, use some examples wherein they can think critically with the solution"*. The fifth Montessori fundamental principle, the Cultural curriculum integrates cultural lessons into everyday activities, making learning continuous. Teacher B pointed out that *"Teaching continents through songs for easy memorization"* shows how songs aid learning. This integration helps children internalize cultural concepts and apply them in various contexts. It also fosters a sense of curiosity and exploration, encouraging children to discover new things about their environment and the world at large.

### Teacher C

Teacher C from Montessori School in the City of Antipolo, Rizal Province, Philippines, has been in service for nine years, teaching in the Elementary department. The first fundamental principle of the Montessori practical life curriculum is engaging with nature through planting and observing plants, which helps enhance children's connection to the environment. Teacher C noted, ***"Planting trees, watering the plants, and observing or monitoring their plant every day"*** are activities that nurture a connection with nature. These activities are foundational for developing practical life skills children carry into adulthood. The second fundamental Montessori principle, the Montessori Sensorial, states that sensory exploration is crucial to Montessori education. Teacher C mentioned, ***"Learners can use real objects to classify the differences of the size and weight of an object,"*** highlighting the importance of tactile learning in developing cognitive skills. The third fundamental Montessori principle is that the language curriculum uses reading activities. Teacher C stated, ***"Through a song or sometimes by keep reading a short story with comprehension and reciting in the class."*** Highlighting the enhancement of the child's reading comprehension and fluency. The fourth Montessori fundamental principle, Numeracy education, ensures that children learn mathematical concepts and apply them in practical contexts. Teacher C highlighted, ***"Use of materials like beads enhances the counting skills and comprehension in math."*** The fifth fundamental Montessori principle is cultural education, which teaches world geography. Teacher C highlighted the use of globes and maps, saying, ***"Use of globes to better know the countries using maps and also watching videos."***

**Matrix 1.0**

<b>Emerging Themes</b>	<b>Emerging Categories</b>
4.1 Cultivating Independence Through Daily Engagement	4.1.1 Independence through Daily Tasks 4.1.2 Self-care Task for Independence 4.1.3 Independence and Responsibility 4.1.4 Foundation of Independence
4.2 Fostering Independence through Nature	4.2.1 Nature Connection Activities
4.3 Enhancing Learning through Hands-On	4.3.1 Hands-on Learning
4.4 Promoting Comprehensive Development through Hands-on Sensory Activities	4.4.1 Color and Shape Recognition 4.4.2 Size and Weight Discrimination 4.4.3 Hands-on Activities and Materials 4.4.4 Sensory Development 4.4.5 Cognitive Development
4.5 Nurturing Language Skills through Hands-On Activities	4.5.1 Phonetic Awareness 4.5.2 Communication Skills Development 4.5.3 Reading Activities
4.6 Building Social Skills through Interactive Activities	4.6.1 Enhancing Social Skills
4.7 Facilitating Mathematical Skills through Hands-On Materials and Problem-Solving	4.7.1 Tangible Materials 4.7.2 Problem-Solving 4.7.3 Hands-on Experience and Math Activities 4.7.4 Guided Learning
4.8 Cultural Awareness and Social Curriculum	4.8.2 Comprehensive Cultural Relationship 4.8.3 Social Responsibility

**Matrix 1.0****Categories and Interpretation of Transcript****I. Practical Life****4.1 Cultivating Independence through Daily Engagement**

<b>Categories</b>	<b>Transcript</b>	<b>Interpretation</b>
4.1.1 Independence through Daily Tasks	<b>Program Head</b> <i>Montessori Practical Life Curriculum is designed to develop a child's sense of independence by providing them with activities that are relevant to their daily lives.</i>	The curriculum aims to develop independence through relevant daily activities.
4.1.2 Self-care Task for Independence	<b>Program Head</b> <i>Montessori practical life activities also include tasks related to self-care, such as dressing, buttoning, and tying shoelaces.</i>	Practical life activities include self-care tasks that promote independence.
4.1.3 Independence and Responsibility	<b>Teacher A</b> <i>Montessori practical life helps the child show sense of independence and responsibility through constant learning and experience, experience of this daily practical life activities.</i> <b>Teacher B</b> <i>Helps the child to become independent and responsible by doing daily activities like daily routine.</i> <b>Teacher C</b> <i>The teacher lets the learners do on his or her own like opening their food, maintaining the cleanliness of their place.</i>	Develop independence and responsibility through practical life activities.  Daily routines in practical life activities promote independence and responsibility.  Practical life activities promote independence and responsibility through daily tasks.
4.1.4 Foundation of Independence	<b>Principal</b> <i>Practical Life is a foundation for an independent and happy individual.</i>	Practical life activities are fundamental for developing independence and happiness.

#### 4.2 Fostering Independence through Nature Connection Activities

Categories	Transcript	Interpretation
4.2.1 Nature Connection Activities	<p><b>Program Head</b> <i>Learning activities that involve nature such as planting, watering, observing plants grow are part of their activities here in school.</i></p> <p><b>Teacher A</b> <i>We expose the children to nature by having different activities such as planting, observing, and taking care of their plants.</i></p> <p><b>Teacher B</b> <i>Outdoor activities like watering the plants, planting the plants if ever. Observe the nature.</i></p> <p><b>Teacher C</b> <i>Planting trees, watering the plants, and then they will go in to observe or monitor their plant every day.</i></p>	<p>Promote a relationship with nature by engaging in gardening and plant observation.</p> <p>Promote a relationship with the natural world by engaging in tasks like planting and observing.</p> <p>Outdoor activities foster a connection with nature.</p> <p>Activities related to nature help children connect with natural environment.</p>

#### 4.3 Enhancing Learning through Hands-On Activities

Categories	Transcript	Interpretation
4.3.1 Hands-on Learning	<p><b>Teacher A</b> <i>By having the Montessori materials, the children have the an-advantage to learn easier by manipulating or working on the materials on their own and using their own hands.</i></p>	<p>Enhance learning through hands-on manipulation of materials.</p>

### II. Sensorial

#### 4.4 Promoting Comprehensive Development through Hands-On Sensory Activities

Categories	Transcript	Interpretation
4.4.1 Color and Shape Recognition	<p><b>Program Head</b> <i>Colors and shapes are incorporated in the student's exploration of the different materials.</i></p> <p><b>Teacher A</b> <i>The good thing with Montessori approach in introducing shapes and color to the children uhm is there a uhm that they are specially</i></p>	<p>Integrate color and shape recognition through material exploration.</p> <p>Use specially designed materials for recognizing shapes and colors.</p>

	<p><i>designed for them, materials that allow them to recognize the shape and colors by touching and looking at concrete shapes and colors.</i></p> <p><b>Teacher B</b> <i>Using crayons to feel and shade the trace shapes. So these are materials that we use in order for them to recognize the shape, recognize the colors. Aside from pictures.</i></p> <p><b>Teacher C</b> <i>So by means of pictures and real life objects with different colors and shapes, with that, they will easily recognize the different colors and shapes than the objects that they see.</i></p>	<p>Crayons and tracing shapes help in recognizing shapes and colors.</p> <p>Use of pictures and real-life objects to teach color and shape recognition.</p>
4.4.2 Size and Weight Discrimination	<p><b>Teacher A</b> <i>Size and weight discrimination are discovered by the children through the use of the pink tower.</i></p> <p><b>Teacher C</b> <i>Learners can use real objects for them to really classify the differences of the size and weight of an object. They can also feel or touch the objects.</i></p>	<p>Promote size and weight discrimination through materials like the pink tower.</p> <p>Real objects help children learn size and weight discrimination.</p>
4.4.3 Hands-on Activities and Materials	<p><b>Program Head</b> <i>Montessori curriculum emphasizes hands-on, purposeful activities targeting the children to become capable and independent.</i></p> <p><b>Teacher B</b> <i>Montessori classrooms are equipped with a wide range of hands-on. So we're doing hands-on materials that engage multiple senses. So by showing through image, not only image but also real object of the given lesson.</i></p>	<p>Emphasize hands-on activities to develop capabilities and independence.</p> <p>Equipped with hands-on materials.</p>
4.4.4 Sensory Development	<p><b>Teacher A</b> <i>Usage of the five senses is practiced evidently daily. So, the children are allowed to explore and move around, work, and discover on their own.</i></p> <p><b>Principal</b> <i>Sensorial Exercises are those pertaining to development of the five senses. Through experiences with sensorial materials, children will learn to comprehend and classify the world around them.</i></p>	<p>Practice the use of the five senses through daily exploration and discovery.</p> <p>Sensorial activities focus on developing the five senses.</p>

	<p><b>Teacher B</b>  <i>So, the Montessori education is well-known for the sensory focus. More on focus in the Montessori approach. The five senses is always there, especially in teaching. So we use sensory apparatus, activities, and materials to enhance children's understanding of shapes, colors, textures, sounds, and tastes, and smells.</i></p>	Using sensory apparatus, activities and materials.
4.4.5 Cognitive Development	<p><b>Program Head</b>  <i>One of the ways of promoting cognitive development and sense of balance through size and weight discrimination is by allowing the students to manipulate the materials, particularly the pink tower and the brown stairs.</i></p>	Promote cognitive development and balance through manipulation of materials like the pink tower and brown stairs.

### III. Language

#### 4.5 Nurturing Language Skills through Hands-On Activities

Categories	Transcript	Interpretation
4.5.1 Phonetic Awareness	<p><b>Program Head</b>  <i>Montessori approach starts with phonetic awareness as the foundation for reading.</i></p> <p><b>Teacher A</b>  <i>Phonics and word recognition are taught using the sandpaper letters.</i></p> <p><b>Teacher B</b>  <i>So, I integrate phonics and comprehension strategies. Children learn the sounds of letters through songs. So in introducing the letters to the students, I use songs like ABC, something like that. Then second is the sounds.</i></p>	<p>Phonetic awareness is the foundation for reading.</p> <p>Teache phonics and word recognition using sandpaper letters.</p> <p>Songs are used to teach letter sounds and recognition.</p>
4.5.2 Communication Skills Development	<p><b>Program Head</b>  <i>Through conversations, stories, songs, and rhymes, children develop vocabulary, comprehension, and communication skills.</i></p> <p><b>Teacher A</b>  <i>So some of the programs of the school are music and movement. Role playing, show and tell, and dress up day. So those are some of the programs that we have here. And those can help develop the student's communication skills.</i></p>	<p>Develop communication skills through stories, songs, and rhymes.</p> <p>Develop communication skills through various programs like music, movement, and role-playing.</p>

	<p><b>Principal</b> <i>Communication was done through pictograms, pictures, and drawings. It then developed into ideograms when pictures began to turn into symbols, later became words, words involved letters, vowels emerged, one symbol came to represent one sound. An alphabet was created that we use today that helps students develop good communication skills through writing, letter mastery, reading, storytelling and drawing.</i></p> <p><b>Teacher B</b> <i>So, the Montessori program helps the students to develop their abilities. For example, we do some poems. We do some scenarios with sometimes drama. They can do that—drama, poems, memorization, and to develop their abilities in communication. Sometimes we play role play. So sometimes we're just playing. And then also the self-confidence of the learner. I develop also.</i></p> <p><b>Teacher C</b> <i>By performing in class like role-playing, drama or reciting a poem.</i></p>	<p>Language development evolved from pictograms to the modern alphabet, aiding communication skills. Various activities are used to enhance communication skills.</p> <p>Various interactive activities enhance communication skills and self-confidence.</p> <p>Various performance activities develop communication skills.</p>
4.5.3 Reading Activities	<p><b>Teacher C</b> <i>Through a song or sometimes by keep on reading a short story with comprehension and reciting in the class.</i></p>	<p>Songs and reading activities enhance reading comprehension and fluency.</p>

#### 4.6 Building Social Skills through Interactive Activities

Categories	Transcript	Interpretation
4.6.1 Enhancing Social Skills	<p><b>Program Head</b> <i>Children should be engaged in group discussions, singing during circle time, role-playing, group games, and show-and-tell activities.</i></p> <p><b>Teacher A</b> <i>Allowing the children to speak and express themselves help develop their social skills.</i></p>	<p>Enhance socialization skills through group activities.</p> <p>Enhance social skills by allowing self-expression and communication.</p>

#### IV. Numeracy

#### 4.7 Facilitating Mathematical Skills through Hands-On Materials and Problem-Solving

Categories	Transcript	Interpretation
4.7.1 Tangible Materials	<p><b>Program Head</b> <i>Materials such as beads, to be precise, the color bead set, represent correct or concrete picture of the numerical concepts.</i></p> <p><b>Teacher A</b> <i>These materials mentioned are tangible and this helps children to understand and grasp the numerical concepts in a concrete picture.</i></p>	<p>Use tangible materials like beads to represent numerical concepts.</p> <p>Use tangible materials to help understand numerical concepts.</p>
4.7.2 Problem-Solving	<p><b>Teacher A</b> <i>The three-part card or classified cards help children learn the things around them and recognize their needs.</i></p> <p><b>Principal</b> <i>Use of beads, blocks, puzzles and number cards are very useful to enhance students' mathematical comprehension and problem solving.</i></p> <p><b>Teacher B</b> <i>They can easily understand the problem solving by use of pictures. And at the same time, use of some examples wherein they can think critically with the solution.</i></p> <p><b>Teacher C</b> <i>The learners easily understand the problem solving with the use of pictures and real-life situations.</i></p>	<p>Use three-part cards to enhance comprehension and problem-solving skills.</p> <p>Various materials are used to support mathematical understanding and problem-solving.</p> <p>Visual aids and examples are used to develop critical thinking and problem-solving skills.</p> <p>Visual aids and real-life scenarios help in problem-solving and comprehension.</p>
4.7.3 Hands-on Experience and Math Activities	<p><b>Program Head</b> <i>Using wooden blocks provide hands-on, concrete experiences for children to explore and understand abstract mathematical ideas.</i></p> <p><b>Teacher B</b> <i>We use manipulative and math instruction. So particularly helpful in getting the children, students to move from the concrete and abstract. It will enhance their comprehension to solving mathematical problems.</i></p>	<p>Provide hands-on experiences with wooden blocks to understand mathematical ideas.</p> <p>Manipulatives and hands-on math activities enhance problem-solving skills.</p>
4.7.4 Guided Learning	<p><b>Principal</b> <i>Learners need the guidance of the teachers until they become self-reliant.</i></p>	<p>Teacher guidance is essential for developing self-reliance in learners.</p>

#### V. Cultural

#### 4.8 Exploring Geography and Cultures through Comprehensive Tools and Social Responsibility

Categories	Transcript	Interpretation
4.8.1 Geography Tools	<p><b>Program Head</b> <i>Specially provided materials such as the globe and the seven continent wood puzzles are used to introduce the seven continents.</i></p> <p><b>Principal</b> <i>The teachers use maps, globes for the students to comprehend and have interest in knowing about the world, continents.</i></p> <p><b>Teacher C</b> <i>Use of globes to better know the countries using maps and also watching videos.</i></p>	<p>Use materials like globes and puzzles to teach about the world and the continents.</p> <p>Maps, globes, and pictures are tools for teaching global geography.</p> <p>Globes, maps, and videos are used for teaching world geography.</p>
4.8.2 Comprehensive Cultural Curriculum	<p><b>Program Head</b> <i>The curriculum covers land and water forms, flags of the countries, and the seven continents.</i></p> <p><b>Teacher A</b> <i>Montessori curriculum arouse, aroused the interest and curiosity of the students to learn about the bigger world through cultural life.</i></p>	<p>The curriculum includes learning about landforms, flags, and continents.</p> <p>Expand global perspective through cultural life curriculum.</p>
4.8.3 Social Responsibility	<p><b>Program Head</b> <i>Montessori education model instills a sense of social responsibility and empathy in students through a nurturing learning environment.</i></p> <p><b>Teacher A</b> <i>Montessori education evolves in the philosophy of respect, order, discipline, independence, and freedom with responsibility.</i></p> <p><b>Principal</b> <i>The teacher will present true to life stories about the people around the world, continents and other countries.</i></p>	<p>Instill social responsibility and empathy through a nurturing environment.</p> <p>Instill respect, discipline, and social responsibility.</p> <p>Real-life stories are used to teach social responsibility and empathy.</p>

## **Discussion**

The themes that emerged were the following: Cultivating Independence through Daily Engagement, Fostering Independence through Nature Connection Activities, Enhancing Learning through Hands-On Activities, Promoting Comprehensive Development through Hands-On Sensory Activities, Nurturing Language Skills through Hands-On Activities, Building Social Skills through Interactive Activities, Facilitating Mathematical Skills through Hands-On Materials and Problem-Solving, and Exploring Geography and Cultures through Comprehensive Tools and Social Responsibility. Categories characterize each theme. This study sought to ascertain whether Montessori teachers in selected Antipolo City private schools follow the fundamental teaching principles of the method, which include practical life, sensorial, language, numeracy, and cultural.

### **4.1 Cultivating Independence through Daily Engagement**

The Montessori Practical Life curriculum's focus on real-life activities and nature connection helps children develop essential life skills and environmental consciousness. This approach enhances practical engagement and fosters independence and responsibility, which are crucial for their development. This was affirmed by Ngoc (2023). The goal of practical life activities is to help children become more independent, improve their ability to move with coordination, adapt to their surroundings, and focus better. Through practice with real-life activities, the children can improve their gross and fine motor abilities and problem-solving capabilities to create a solid sense of self by making a meaningful contribution to the world.

#### *4.1.1 Independence through Daily Tasks*

According to Sophia & Linebarger (2016), the study presented Montessori's principle of personalized learning, which results in different aspects, such as using personal items as transitional objects for the children to confidently and independently enter the room without them. Also, the children were engaged and provided with different materials and activities. The Program Head emphasizes that the Montessori practical life curriculum is designed to develop the child's independence through relevant daily activities.

#### *4.1.2 Self-care Task for Independence*

The program head highlights that in practical life activities, including tasks emphasizing self-care like dressing, buttoning, and tying shoelaces, children gain independence by mastering these skills. As affirmed by (Sophia & North, 2022), self-care activities include dressing and

undressing, wiping their nose, and preparing snacks. In addition to that, a dressing frame activity is provided. These activities help the students experience and perform the actual work, such as dressing frames with large buttons.

#### *4.1.3 Independence and Responsibility*

In a study mentioned by Sophia and North (2022), the lessons in practical life develop the child's independence and responsibility. In addition, the children were observed to be calmer and more focused while doing their work. Practical life exercises were provided as well, and it is noted that lessons were done during morning sessions. Practical life lessons include the following: picking up a tray, waiting in line, spooning, cleaning your hands, and using a cheese grater. Teachers A, B, and C mentioned that providing activities and tasks that are significant to their daily lives, like daily routine, are designed to develop the child's independence and responsibility.

#### *4.1.4 Foundation of Independence*

Boesenberg's (2023) research project evaluated how children's freedom was impacted by social-emotional learning and emotional coaching in a small, private Montessori preschool. The findings imply that teaching parents how to assist their children emotionally has significant benefits, even in schools where parents are instructed on how to encourage their children's independence. This supports the principal's assertion. The principal believes that the practical life is the foundation of one's independence and happiness.

### **4.2 Fostering Independence through Nature Connection Activities**

The Montessori approach recognizes that environmental education is an emerging field critical to reducing climate change through its connection with the environment for current and future generations. Despite its aim of motivating young children and giving students an extensive understanding of nature, environmental education is lacking in most classrooms, especially in Montessori institutions. A method used by Montessori supports children as they discover their role in the natural environment and recognize the special bond each child has with it (Flack & Elasic, 2022)

#### *4.2.1 Nature Connection Activities*

Program Head, Teachers A, B, and C have the same results regarding the importance of exposing children to nature activities that help them engage with the environment. To support this statement, a study (Russell, 2014) says that children's connection to the environment is innate. Providing sensory materials such as seeds for planting, watering, and caring for it.

### **4.3 Enhancing Learning Through Hands-On Activities**

In addition to the Practical Life curriculum in the Montessori approach, enhancing practical life engagement promotes a positive result in a child's development. As a result of a study, Atis-Akyol et al. (2023) stated that it is essential for children to learn and play at a young age. Preschools serve a vital role by allowing children to explore and learn at their own speed. This is where students start to impact how good Montessori schools are regarding classroom layout, resources, and activities. Activities related to practical life, math, and sensory materials are primarily used in the classroom. However, teachers were not prepared for the Montessori practices because of the struggles they encountered, such as mixed-age groups and the high cost and supply of materials.

#### *4.3.1 Hands-on Learning*

Teacher A noted that using hands-on activities and materials that the child manipulates has an advantage in making learning more accessible. Phadke (2019) supports this statement in her study, mentioning that the student's hands-on skills are crucial to becoming a successful professional. Nowadays, due to various reasons, students show the slightest interest in practical practice. These practical practices are meant to encourage peer support learning.

### **4.4 Promoting Comprehensive Development through Hands-On Activities**

Sensorial activities in Montessori education significantly enhance children's sensory and cognitive development. This was supported by Saha and Adhikari (2023). The Montessori approach begins with a child's curiosity. This enables them to explore and learn through the five senses. With the guidance of their teacher, they would then be able to improve critical thinking and motor skills. Children learn to differentiate and classify sensory information by engaging with specially designed materials, which is crucial for their intellectual growth and practical understanding of the world. The emphasis on hands-on activities and daily practice ensures that children develop these skills continuously. This approach enhances their cognitive abilities and

fosters independence and confidence. Ultimately, sensorial activities prepare children to engage with their environment meaningfully and purposefully.

#### *4.4.1 Color and Shape Recognition*

The Program Head, Teachers A, B, and C highlighted that colors and shapes are incorporated in the student's exploration of the different materials. According to Marshall's (2017) study, sensorial materials are tools designed for children to classify and identify the objects they encounter on an everyday basis through their senses.

#### *4.4.2 Size and Weight Discrimination*

As a result of the study by Saha and Adhikari (2023), the goal of sensorial is to improve how the child perceives different things through repetition practice. One of the most valuable tools in Montessori is the Pink Tower. It has a set of 10 pink cubes in different sizes; the smallest cube is 1 cm, while the largest is 10cm. Children would pick the most significant block, toss the pink cubes onto the green carpet, and start building the tower. After that, they accomplished the Pink Tower; they would knock it down and watch the pink cubes spread on the green carpet. Teachers A and C emphasized that natural objects help the children learn size and weight discrimination.

#### *4.4.3 Hands-on Activities and Materials*

Murray & Culclasure (2021). Montessori education started considering using digital tools in its teaching method. Traditionally, the Montessori approach focuses on hands-on and real-world activities. Montessori teachers disapprove of using screens for children under the age of 6 and limit elementary-aged children from enhancing their learning with what digital tools are available in the classroom. The Program Head and Teacher B emphasized that hands-on activities develop capabilities and independence with hands-on materials.

#### *4.4.4 Sensory Development*

The Sensorial fundamental principle emphasizes that the well-known Montessori method is the cornerstone of education for young children. The tools, games, and sensory equipment support the needs of the children to improve their understanding of the senses, such as sight, sound, taste, smell, and touch, as affirmed by Saha and Adhikari (2023). Principal and Teacher A noted the practices of the five senses through daily exploration and discovery. Teacher B mentioned that using sensorial materials can help children enhance their senses.

#### *4.4.5 Cognitive Development*

Ten different-sized pink cubes make up the Pink Tower. The material isolates the notion of sizes by assisting the child in building cubes from the largest cube on the bottom to the tiniest cube on top. The "Brown stairs," often referred to as the Brown Prism, is a Montessori material that comes in ten brown, wooden rectangular prism and square on two ends which the child will learn to distinguish the thickest and thinnest (Ahluquist & Gynther, 2019). The Program Head mentioned cognitive development and balance by manipulating materials like the pink tower and brown stairs.

### **4.5 Nurturing Language Skills through Hands-On Activities**

The Montessori approach to language literacy effectively develops children's reading, writing, and communication skills. Montessori education fosters comprehensive language development that supports individual and social growth by focusing on phonetic awareness and incorporating interactive group activities. The emphasis on self-expression and creativity further enhances children's communication skills and confidence. Jaiswal (2022) says this holistic approach prepares children to become effective communicators and active community participants. Language literacy in Montessori education lays a strong foundation for lifelong learning and personal development.

#### *4.5.1 Phonetic Awareness*

Based on Ryan's study (2015), using sandpaper letters allows children to explore sensory experiences such as the sense of touch. He also stated that children enjoy working with sandpaper letters even though they already know the sound of the letters. In addition, the opportunity given to the children has helped them practice writing and recognizing the letters of the alphabet and their sounds. The Program Head, Teachers A and B highlight that learning phonics through sandpaper and songs helps them recognize sounds and words.

#### *4.5.2 Communication Skills Development*

The Program Head, Principal, and Teacher A highlight various activities such as music, movement, role-playing, poem reading, stories, and rhymes to help the child develop their communication skills. To support this, a study by Zavala (2022), fostering children's language development is essential for fostering healthy social relationships and the development of their communication abilities. The participants felt that the Montessori curriculum's emphasis on

communication skills development and this methodology are beneficial to children's communication development.

#### *4.5.3 Reading Activities*

The philosophy of music educators in Montessori schools is that children have a natural right to develop their musical and auditory senses. Because music has the "ability to communicate the ideas and emotions of the human spirit," it benefits all students. Research has also demonstrated that high-quality musical involvement can help children's reading and tonal skills develop by promoting singing and the development of rhythmic ability Salvador (2019). Teacher C mentioned that songs and reading activities enhance the reading comprehension and fluency of the children.

### **4.6 Building Social Skills through Interactive Activities**

When the Montessori method is adhered to genuinely, it can positively change the engaged children's academic, behavioral, and socioemotional results. Experts must look into these and other results to create substantial evidence supporting an established idea. Understanding the Montessori approach and having the right tools for assessing how well it affects the kids' behavior. Culclasure (2018) said that the Montessori method's logic model was developed to clarify how concepts were established, how they were used in classroom activities, and why such activities benefited the children. The methodical timetable, work cycles, independence, self-correction, self-assurance, and active engagement in group activities that characterize Montessori education are clear examples of its basic principles.

#### *4.6.1 Enhancing Social Skills*

Researchers generally agree that the following components of preschool circle times are common, despite variations in details between schools and teachers: greetings, calendar work, weather discussions, classroom responsibility assignments, sharing time, read-aloud, general conversation, songs/fingerplays, and closing activities. It is clear that maximizing student engagement is essential, and circle time activities need to be carefully planned (Bustamante, 2018). The Program Head and Teacher A believed that engagement in group activities and letting the children speak for themselves may enhance their social skills.

#### **4.7 Facilitating Mathematical Skills through Hands-On Materials and Problem-Solving**

Montessori Numeracy education's use of tangible and interactive materials significantly aids in children's understanding of mathematical concepts. Through practical experiences, this method increases student engagement and helps children build a strong foundation in numeracy. The emphasis on practical application and continuous exposure to mathematical ideas ensures that children develop strong problem-solving skills and mathematical reasoning. In line with this, Lillard (2021) concluded that children are highly motivated and engaged when working with Montessori materials because these materials align with their interests and natural tendencies. This engagement facilitates both direct and indirect learning of mathematical concepts. Ultimately, numeracy education in Montessori schools prepares children to approach mathematical challenges confidently and competently.

##### *4.7.1 Tangible Materials*

A study by Casey et al. (2016) offers compelling evidence supporting the effectiveness of concrete materials, specifically color bead sets, in improving children's comprehension of numerical concepts. This finding emphasizes the crucial role of tangible representations in early numerical education, as these interactions assist children in grasping foundational mathematical principles such as the cardinal principle. It aligns with the Program Head and Teacher A assertion that tangible material helps children to understand mathematical concepts better; Carbonneau and Marley (2015) have found that tangible materials enhance children's ability to comprehend and retain numerical concepts by enabling interaction and manipulation of objects, thus facilitating a better understanding of mathematical principles.

##### *4.7.2 Problem-Solving*

Research indicates that manipulatives such as these can significantly improve students' understanding and retention of mathematical concepts by providing a concrete basis for abstract ideas (Boaler, 2016). This connection underscores the effectiveness of hands-on learning tools in supporting students' mathematical development, supporting what the Principal said. Based on what Teacher A said, studies show that these types of classification activities support cognitive development and help children make sense of their environment (Marshall, 2017), which aligns with Teacher A's description that the three-part card or classified cards assist children in learning about their surroundings and identifying their needs.

Osman et al. (2016) found that visualization techniques in education significantly enhance students' conceptual understanding of mathematical problem-solving. The study particularly emphasizes the positive impact of bar model visualization. This finding supports Teacher B's observation. According to Benson-O'Connor et al. (2018), math journals offer students opportunities to articulate their understanding of mathematical concepts or express frustrations regarding gaps in their understanding. In contrast, Teacher C mentioned that learners understand problem-solving with the use of pictures and real-life situations.

#### *4.7.3 Hands-on Experience and Math Activities*

McDonough's (2016) study indicated that integrating manipulatives as an approach establishes a foundation that fosters critical thinking and empowers students to take ownership of their work that aligns with what Teacher B describes how manipulatives offer students' tactile experiences that aid in transitioning from the concrete to the abstract and enhance their problem-solving comprehension—integrating manipulatives into math instruction, which aligns with Lange's study (2021), highlighting that implementing manipulatives in learning mathematics provides students with a novel approach to engage with the subject matter.

#### *4.7.4 Guided Learning*

Li T. et al. (2023) suggest that SRL scaffolding positively enhances academic performance and learning processes. The study examines different perspectives on SRL scaffolding, including its enduring effects on student persistence. This supports the Principal's assertion that learners need the guidance of teachers.

### **4.8 Exploring Geography and Cultures through Comprehensive Tools and Social Responsibility**

The Montessori approach to Cultural awareness effectively broadens children's understanding of the world and instills essential values such as empathy and social responsibility. Montessori education helps children develop a global perspective and a strong sense of community by using interactive materials and fostering a nurturing environment. The emphasis on social responsibility and cultural appreciation prepares children to become active and compassionate members of society. D'Cruz (2022) supports the idea that integrating culturally sustainable practices with the Montessori method leads to more enriching and empowering school experiences for both Montessori families and educators. By focusing on the experiences of children of color in public Montessori education in the United States, D'Cruz

highlights the positive impact of this approach. Ultimately, cultural awareness education in Montessori schools establishes a solid foundation for lifelong learning and promotes global citizenship.

#### *4.8.1 Geography Tools*

The Program Head, Principal, and Teacher C all reached the same conclusion, stating that geography tools can cultivate a child's deep understanding and curiosity about the world. Kristiyani (2018) affirmed that the environment and materials should be explored in line with Montessori education principles. These environments and materials are adaptable for all types of learners, making them a viable option for inclusive education settings. Teaching materials grounded in Montessori concepts are suitable for all age groups and effectively address the needs of every student.

#### *4.8.2 Comprehensive Cultural Curriculum*

Misheva (2020) explored how geography education can be used to incorporate environmental education for students, aiming to not only enhance practical applications but also significantly boost each child's engagement and sense of responsibility. The Program Head emphasizes the importance of a well-rounded approach in the Montessori Cultural curriculum, which establishes a strong foundation for understanding global interconnectedness and fostering cultural appreciation. Teacher A underscores the essential element of the Montessori curriculum: sparking and maintaining students' interest and curiosity. Soydan (2020) supported this view in her research on strategies to inspire curiosity in children through the Montessori method, recognized as a contemporary educational approach.

#### *4.8.3 Social Responsibility*

According to Leonard (2015), familiarizing students with the local history and geography of their environment offers a foundational context for grasping geographical concepts. This supports what the Program Head and Teacher A emphasize: not only does the Montessori education prepare students academically, but it also equips them with essential life skills such as social responsibility, empathy, and global perspective. This can empower students to become compassionate, responsible global citizens.

A study by Taggart et al. (2018) found that while children frequently engage in pretend play, many believe that such activities benefit their development. Recent research has indicated that children aged 4 to 6 generally prefer real activities over pretend ones when given a choice among nine different activities. Their preference for real activities is often linked to their

appreciation of the practical aspects of those activities. When children opt for pretend play, it is usually due to fears, restrictions, or an inability to participate in the real version. This finding aligns with the Principal's statement that realistic stories about people from around the world can help teach children social responsibility and empathy.

## **5.0 Presentation**

This part presents the informants and the conclusion, conceptual framework, and research recommendation.

### **Program Head**

The Program Head from Montessori School in the City of Antipolo, Rizal Province, Philippines, has been in service for 25 years and is currently the Program Head of the Preschool department. In Montessori's approach to the Practical Life principle, the program head emphasizes the child's independence through relevant daily activities such as pouring liquids, spooning, and transferring grains, and self-care tasks such as dressing, buttoning, and tying shoelaces. In addition, activities such as planting and observing plants encourage the child to connect with nature. For Montessori's Sensorial curriculum, she believes that exploring different materials and manipulating materials like pink towers and brown stairs, together with the emphasis on hands-on activities, fosters the child's sensory and cognitive development. In Montessori's Language education, she emphasizes that phonemic awareness is the foundation of reading. Also, group activities such as role-playing, group games, and show-and-tell activities help the child develop their socialization skills. Moreover, by conversing, stories, songs, and rhymes develop the child's communication skills.

Furthermore, in Montessori's Numeracy education, the program head says that using tangible materials like beads represents numerical concepts, and providing hands-on experiences with wooden blocks helps the child explore and understand mathematical ideas. For Montessori's approach to cultural principles, she highlighted using globes and the seven continent puzzles as materials for teaching geography. The comprehensive cultural curriculum also covers learning about the countries and continents' land and water forms and flags. Moreover, the nurturing learning environment promotes a sense of social responsibility and empathy in children.

**Principal**

The principal of a Montessori school in the City of Antipolo, Rizal Province, Philippines, has been instrumental in shaping the Montessori curriculum over her ten years of service. She believes practical life exercises are significant to developing a child's independence and happiness. In the Sensorial education of the Montessori approach, she has emphasized the importance of the sensorial exercises that focus on developing the five senses. In Montessori's fundamental principle of language, she championed activities like writing letter mastery, reading, storytelling, and drawing to help develop the child's communication skills.

Moreover, in the Numeracy curriculum in Montessori's approach, the principal highlighted using beads, blocks, puzzles, and number cards as materials to support the child's mathematical comprehension and problem-solving. In addition to that, she emphasizes that guided learning is significant in helping the child become self-reliant. In Montessori's Cultural principle, she noted using maps, globes, and pictures as tools in teaching global geography. Also, presenting real-life stories helps teach social responsibility and empathy.

**Teacher A**

Teacher A from Montessori School in the City of Antipolo, Rizal Province, Philippines, has been in service for one year, teaching in the Preschool department. Based on her answers, she saw firsthand how the Montessori practical life fosters the child's independence and sense of responsibility. She believes that by watching children engage in daily activities that build their confidence through constant learning and hands-on experience, they can master essential skills and develop the ability to do things independently. In Montessori's Sensorial fundamental principle, she said introducing shapes and colors engages children to do things they can touch and observe, such as the wooden shape and color tablets. With the use of the five senses in daily practice, she believes that children can be encouraged to explore, move around, work, and discover things on their own, wherein this sensory engagement is fundamental for their learning and the Montessori language she emphasized that to develop good communication skill, incorporating programs like music and movement such as role-playing, show and tell can encourage children to express themselves.

Additionally, for Montessori Numeracy education, she believes that having tangible tools helps children better understand concrete, pictorial, and abstract ideas. Such as wooden blocks that play a crucial role in helping children to understand geometry; as children play with these blocks, they learn about shapes, weight, size, and hand-eye coordination, where this hands-on experience is essential for developing a deep understanding of geometric concepts. In the Montessori Cultural education, she said that land and water form trays, international flags, and wooden materials help teach children about the world and its continents. She also mentioned that Montessori Cultural education instills respect, order, discipline, independence, and freedom with responsibility. When imbibed by the students, this will promote positive attitudes and behavior.

### **Teacher B**

Teacher B from Montessori School in the City of Antipolo, Rizal Province, Philippines, has been in service for nine years, teaching in the Preschool department. In Montessori's Practical Life, she noted that extending learning into nature can foster a deep connection with the world around them through outdoor activities, such as planting and caring for plants. She believes it teaches how to manage the environment and encourages curiosity and observation skills. In the approach to Montessori Sensorial, children explore shapes, textures, sounds, tastes, and smells through various hands-on activities and materials, allowing them to feel and manipulate objects, which can enhance their understanding and cognitive development. Language development is another principle of the Montessori approach, where she integrates phonics and comprehension strategies into their way of teaching, using songs and interactive games to teach letter sounds and reading skills, setting a solid foundation for children's literacy journey.

Then, for the Numeracy education in the Montessori environment, she said that utilizing manipulative materials such as beads and wooden blocks helps children grasp abstract mathematical concepts through concrete examples. Montessori Cultural education extends beyond geography and history and can broaden children's perspectives on the world and its diversity. Through songs and visual aids, she teaches them about different continents, countries, and cultures, instilling curiosity to explore and understand global perspectives.

**Teacher C**

Teacher C from Montessori School in the City of Antipolo, Rizal Province, Philippines, has been in service for nine years, teaching in the Elementary department. In Montessori's approach to Practical Life, the teacher highlights that letting the child do things independently, such as opening their food and maintaining their place clean, is one of their ways to promote independence and responsibility within the child. Additionally, planting trees, watering the plants, and observing or monitoring the child's plants daily are some activities related to the child's connection with nature. The sensorial principle in Montessori's approach emphasizes using real-life objects as a color and shape recognition tool and classifying the differences in size and weight discrimination. The language curriculum of the Montessori approach highlights that songs and reading activities enhance a child's reading comprehension and fluency. Also note that performances such as role-playing, drama, or reciting a poem develop the child's communication skills.

In addition, in Montessori's Numeracy education, the teacher said that beads are one of the materials used to aid in the development of numeracy skills in a child. She also used pictures and real-life situations to help in problem-solving and comprehension. In Montessori's cultural curriculum approach, she enumerated that globes, maps, and videos are the tools used in teaching world geography.

### 5.1 Conceptual Framework

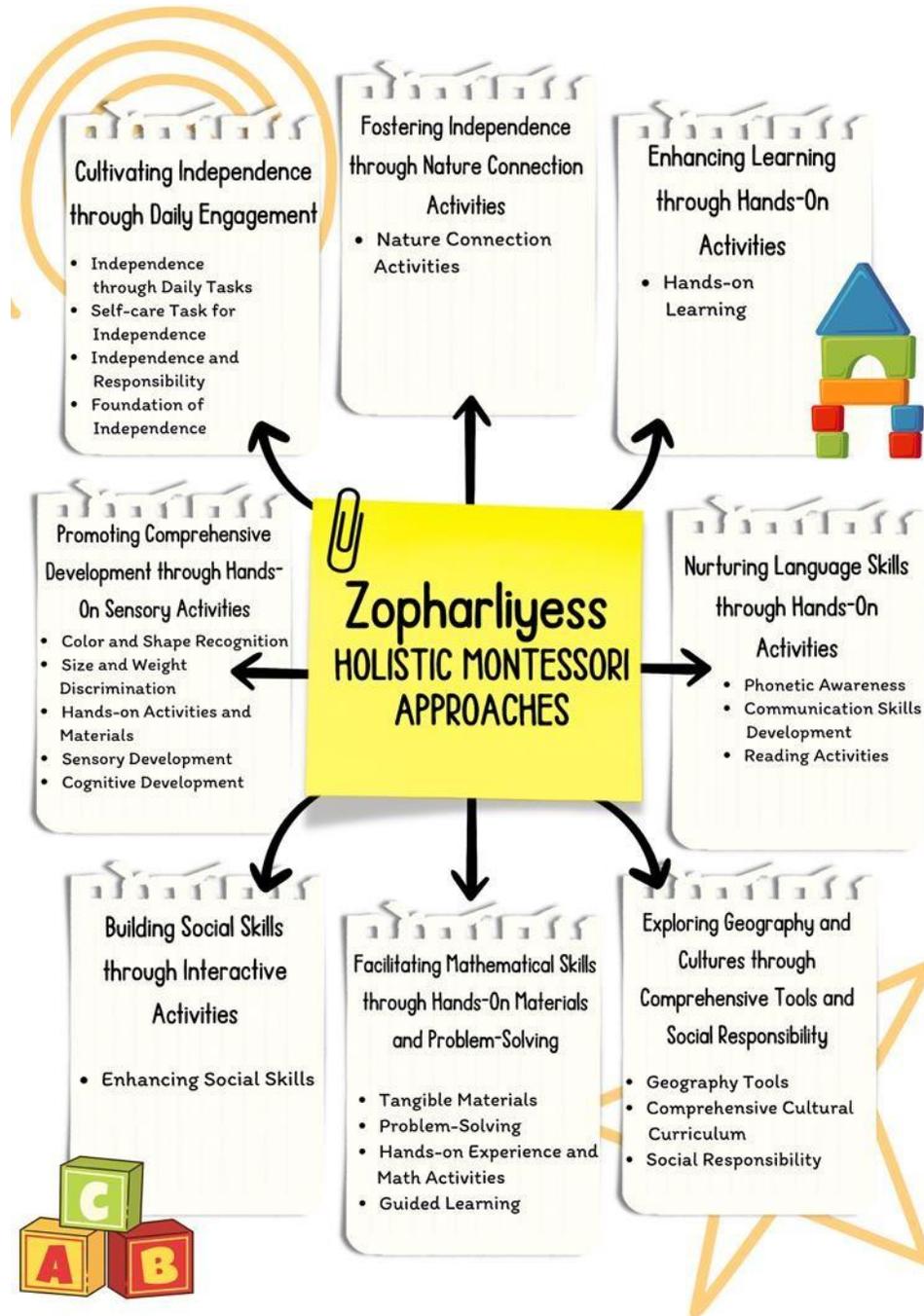


Figure 1. Zopharliyess Holistic Montessori Approaches

The themes that emerged were the following: Cultivating Independence through Daily Engagement, Fostering Independence through Nature Connection Activities, Enhancing Learning through Hands-On Activities, Promoting Comprehensive Development through

Hands-On Sensory Activities, Nurturing Language Skills through Hands-On Activities, Building Social Skills through Interactive Activities, Facilitating Mathematical Skills through Hands-On Materials and Problem-Solving, and Exploring Geography and Cultures through Comprehensive Tools and Social Responsibility. The first theme, Cultivating Independence through Daily Engagement, is characterized by four categories, which are the following: (1) Independence through daily tasks, (2) Self-care tasks for independence, (3) Independence and responsibility, and (4) Foundation of independence. The second theme, Fostering Independence through Nature Connection Activities, is characterized by one category: (1) Nature connection activities. The third theme, Enhancing Learning through Hands-On Activities, is characterized by one category: (1) Hands-on learning. The fourth theme, Promoting Comprehensive Development through Hands-On Sensory Activities, is characterized by five categories, which are the following: (1) Color and Shape Recognition, (2) Size and Weight Discrimination, (3) Hands-on Activities and Materials, (4) Sensory Development and (5) Cognitive development. The fifth theme, Nurturing Language Skills through Hands-On Activities, is characterized by three categories: (1) Phonetic Awareness, (2) Communication Skills Development, and (3) Reading Activities. The sixth theme, Building Social Skills through Interactive Activities, is characterized by one category: (1) Enhancing Social Skills. The seventh theme, Facilitating Mathematical Skills through Hands-On Materials and Problem-Solving, is characterized by four categories, which are the following: (1) Tangible Materials, (2) Problem-Solving, (3) Hands-on Experience and Math Activities, and (4) Guided Learning. The eighth theme, Exploring Geography and Cultures through Comprehensive Tools and Social Responsibility, is characterized by three categories: (1) Geography Tools, (2) Comprehensive Cultural Curriculum, and (3) Social Responsibility.

### **Conclusion**

This study examined the teaching approach of Montessori schools through the lens of the five fundamental principles of Montessori education: Practical Life, Sensorial, Language, Numeracy, and Cultural. This study used a qualitative research methodology to observe and implement teaching methods teachers in Montessori schools employ. The findings indicate that the Montessori Theory is achievable in fostering independence, confidence, and practical skills among students. This educational approach helps cultivate a positive relationship with learning and ensures mastery of the five fundamental principles. Based on the practices, it is evident that the use of technology is lacking. To remain relevant in the modern world, it is recommended that Montessori schools integrate digital tools and collaborate with other institutions to enhance

global awareness and cultural understanding. Such integration would further enrich the Montessori educational experience and prepare students for a connected, digital future.

This study reveals that the practical life curriculum in Montessori schools in Antipolo City consistently cultivates independence, responsibility, and a connection with nature among children. Children develop essential life skills and confidence through engaging in real-life tasks and hands-on activities, preparing them for daily challenges and fostering a love for learning.

Additionally, Montessori sensorial activities capably enhance children's sensory perception and cognitive development. Using specially designed materials and hands-on exploration promotes the continuous development of sensory and mental abilities, helping children build a solid foundation for future learning and problem-solving.

The Montessori approach to language literacy also provides a strong foundation in reading, writing, and communication skills. By emphasizing phonemic awareness and incorporating interactive group activities, children develop comprehensive language abilities and social skills, preparing them to be effective communicators and active community participants.

Montessori numeracy education enhances children's grasp of mathematical concepts through concrete materials and interactive methods. The practical experiences and ongoing engagement with numeracy activities foster the development of mathematical reasoning and problem-solving abilities, which are crucial for their academic progress.

Furthermore, the Montessori approach to cultural awareness successfully broadens children's understanding of the world and instills essential values such as empathy and social responsibility. Through comprehensive lessons and interactive materials, children develop a global perspective and a sense of community, preparing them to be compassionate and socially responsible individuals.

### **Recommendations**

In light of the findings and conclusions drawn from the results, the researchers should contribute knowledge through practical and educational implications. The researchers recommend the following suggestions:

1. Interactive digital tools and applications that align with Montessori principles should be developed and integrated to support Montessori numeracy education. These tools can make learning more engaging and accessible for children. Offering professional development opportunities for teachers on the latest methods in teaching numeracy using Montessori materials can ensure that educators are well-equipped to provide high-quality instruction. Collaborating with other educational institutions to share best practices and innovative approaches in Montessori numeracy education can further enhance the curriculum and support continuous improvement.
2. Montessori schools must be adept at technological advancements in instruction. To facilitate this, the researchers have developed a comprehensive guide that can benefit schools when integrating technology into the Montessori system. This guide provides practical and actionable steps, ensuring a smooth and effective technology integration into the Montessori approach.
3. Future researchers should be encouraged to expand the study to include more Montessori schools across different regions. This broader scope will allow for collecting a more comprehensive range of perspectives, enriching the overall understanding of the Montessori approach and its implementation. Incorporating more diverse viewpoints will make the research findings more comprehensive and applicable to a larger audience, inspiring a collective effort to advance our knowledge in Montessori education.

### Acknowledgment

The group would like to express our deep gratitude to God for granting us the perseverance to address crucial issues in the Philippine education system and underscore the significance of early childhood education in our country.

The group's heartfelt appreciation goes to the legacy of Dr. Maria Montessori, whose enduring principles continue to inspire efforts to enhance and diversify children's education.

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A.T.F

H.J.A.I

Z.A.G.I

P.A.M.L

S.L.P.L

### **Interview Guide Questions**

Problem Statement 1: How do schools promote practical life among its students with respect to the Montessori approach?

1.1 How does Montessori's practical life curriculum help the child show a sense of independence and sense of responsibility in daily activities?

1.2 How do you encourage children's connection with nature through school activities?

1.3 How do Montessori practical life materials help the student progress in terms of their care of self, independence and concentration?

Problem Statement 2: What sensorial materials and activities do the schools provide to cater to the children's sensorial development?

2.1 How does the Montessori approach integrate color and shape recognition into classroom activities?

2.2 How do Montessori approaches incorporate size and weight discrimination for the promotion of cognitive development and a sense of balance?

2.3 How do you practice the usage of five senses in the Montessori curriculum?

Problem Statement 3: How do schools use the Montessori approach to integrate phonics, comprehension strategies, and language exercises in classrooms?

3.1 How do you integrate phonics and comprehension strategies within the Montessori curriculum to introduce reading, comprehension, and fluency?

3.2 How does the Montessori program help students develop good communication skills through writing, letter mastery, reading and drawing exercises, and storytelling?

3.3 How does the Montessori approach be effectively applied to facilitate and enhance the socialization skills among students?

Problem Statement 4: In what ways does the Montessori approach of using math learning tools for sensory experiences support the numeracy development in children?

4.1 In what ways do materials such as beads serve as tangible representations to aid in the comprehension of concrete, pictorial, and abstract numerical concepts?

4.2 How do the interactive techniques involving three-part cards and puzzles in Montessori numeracy instruction synergistically enhance students' mathematical comprehension and problem-solving?

4.3 In what ways do wooden blocks contribute to the development of a student's understanding of geometry?

Problem Statement 5: How is the Montessori approach being applied to the children's development of an understanding of their community, world, and social responsibilities?

5.1 How can you use the Montessori materials to teach about the world and its continents?

5.2 How does the Montessori curriculum expand students' global perspectives and cultivate their interest in knowing more about the world, continents, countries, and people?

5.3 How does the Montessori education models instill a sense of social responsibility and empathy in students, encouraging them to make positive contributions to society?

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**Appendix A****Letter of Permission to Conduct the Study****OUR LADY OF FATIMA  
UNIVERSITY****Letter of Permission to Conduct the Study**

May 27, 2024

**St. John's Wort Montessori School**  
30 M.L Quezon Extension Brgy. Dalig, Antipolo, 1870 Rizal

Dear Sir/Madam

We are the 3rd year students of Our Lady of Fatima University under the program Bachelor of Early Childhood Education. Currently, working on the thesis paper entitled "ANALYSIS ON THE MONTESSORI APPROACH IN SELECTED PRIVATE SCHOOLS IN ANTIPOLO CITY." The study aims to determine the extent of application of Montessori approach in relation to the key principles such as practical life, culture, numeracy, sensorial, and language in the way of applying it to the Montessori approach in order to determine if teachers understand what the Montessori approach is and how they will apply it in their teaching.

In lieu of this, we are requesting your good office to allow us to conduct the said study at your school. Wherein this will involve two (2) participants for an interview. We would like to ask for one (1) school faculty and one (1) school administrator. Who will serve as the primary source of data in this study. Rest assured that the data will be treated with utmost confidentiality.

If you have any questions and concerns, kindly contact any of the following: [Princess Anne M. Lasconia, +63 942 974 2634, princesslasconia08@gmail.com]. Your support and approval on this matter is greatly appreciated. Thank you very much.

Respectfully yours,

Princess Anne M. Lasconia

Noted by:

Joseph Earnest V. Tiempo, MAEd, LPT  
Research Adviser

Received by:

Name and Signature

## Appendix A, Continued



# OUR LADY OF FATIMA UNIVERSITY

## Letter of Permission to Conduct the Study

May 27, 2024

Queen Of Peace Montessori School  
#13 Milagros Avenue, Antipolo, 1870 Rizal

Dear Sir/Madam

We are the 3rd year students of Our Lady of Fatima University under the program Bachelor of Early Childhood Education. Currently, working on the thesis paper entitled "ANALYSIS ON THE MONTESSORI APPROACH IN SELECTED PRIVATE SCHOOLS IN ANTIPOLO CITY." The study aims to determine the extent of application of Montessori approach in relation to the key principles such as practical life, culture, numeracy, sensorial, and language in the way of applying it to the Montessori approach in order to determine if teachers understand what the Montessori approach is and how they will apply it in their teaching.

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Respectfully yours,

Princess Anne M. Lasconia

Noted by:

Joseph Earnest V. Tiempo, MAEd, LPT  
Research Adviser

Received by:

Name and Signature

**Appendix B****Certificate of Validation****OUR LADY OF FATIMA  
UNIVERSITY****CERTIFICATION**

This is to certify that Princess Anne M. Lasconia and her co-researchers who are working on the research paper entitled "ANALYSIS ON THE MONTESSORI APPROACH IN SELECTED PRIVATE SCHOOLS IN ANTIPOLLO CITY", has confer with me for the validation of their research questions for their interview. I acknowledge them for their efforts to consider our judgements regarding the queries of the researchers.

This certification was issued for whatever purpose it may serve.

CONFIRMED:  
  
Signature over printed name

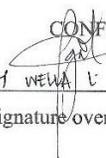
Date: April 23, 2024

**Appendix B, Continued****OUR LADY OF FATIMA  
UNIVERSITY****CERTIFICATION**

This is to certify that Princess Anne M. Lasconia and her co-researchers who are working on the research paper entitled "ANALYSIS ON THE MONTESSORI APPROACH IN SELECTED PRIVATE SCHOOLS IN ANTIPOLO CITY", has confer with me for the validation of their research questions for their interview. I acknowledge them for their efforts to consider our judgements regarding the queries of the researchers.

This certification was issued for whatever purpose it may serve.

CONFIRME:

  
MRS. FRITZY WEHLER ARCEGA - LOPEZ

Signature over printed name

Date: APRIL 30, 2024

**Appendix B, Continued****OUR LADY OF FATIMA  
UNIVERSITY****CERTIFICATION**

This is to certify that Princess Anne M. Lasconia and her co-researchers who are working on the research paper entitled "ANALYSIS ON THE MONTESSORI APPROACH IN SELECTED PRIVATE SCHOOLS IN ANTIPOLO CITY", has confer with me for the validation of their research questions for their interview. I acknowledge them for their efforts to consider our judgments regarding the queries of the researchers.

This certification was issued for whatever purpose it may serve.

CONFIRME:

  
MR. SHERLAND C. GARCIA

Signature over printed name

Date: 05-25-2024

## **Appendix C**

### **Informed Consent Form for Teachers and School Admin**

This informed consent form is for the teachers and school admin in Selected Private Montessori Schools at Antipolo City and who we are inviting to participate in research, titled “Analysis on the Montessori Approach in Selected Private Schools in Antipolo City”.

**[Name of Research Principal]** Princess Anne M. Lasconia

**[Name of School]** Our Lady of Fatima University Antipolo Campus

**[Name of Research Adviser]** Mr. Joseph Earnest V. Tiempo, MAEd, LPT

**[Name of Research Study]** Analysis on the Montessori Approach in Selected Private Schools in Antipolo City

**This Informed Consent Form has two parts:**

- **Information Sheet (to share information about the study with you)**
- **Certificate of Consent (for signatures if you choose to participate)**

**You will be given a copy of the full Informed Consent Form**

#### **Part I: Information Sheet**

##### **Introduction**

We are 3rd-year early childhood education student from Our Lady of Fatima, Antipolo Campus. We are conducting research on the Analysis of the Montessori Approach in Selected Private Schools in Antipolo City. We are providing you with information and inviting you to be part of this research. You do not have to decide today whether or not you will participate in the research. Before you decide, you can talk to anyone you feel comfortable with about the research. This consent form may contain words that you do not understand. Please ask us to stop as we go through the information, and We will take the time to explain. If you have questions later, you can ask us.

##### **Purpose of the research**

Researching assessment practices within the key principles of the Montessori method holds immense importance for advancing education in the Philippines. By analyzing the effectiveness of genuine adherence to the key principles of the Montessori method, we aim to gain insights into pedagogical approaches, inform policy development, improve educational quality, and contribute to education research, with the goal of harnessing the transformative power of the Montessori method to create more inclusive, student-centered, and dynamic learning environments.

## **Appendix C, Continued**

### **Type of Research Intervention**

This research will involve your participation individually that will take about one hour of interview with the use of questionnaires.

### **Participant Selection**

The participants are cordially invited to partake in this research study because we believe that your experience as a teacher, principal, or school head can greatly enrich our understanding and knowledge of the "Analysis on the Montessori Approach in Selected Private Schools in Antipolo City."

### **Voluntary Participation**

Your participation in this research study is entirely voluntary, and you have the option to choose whether or not to participate. Your decision will not have any bearing on your job or job-related evaluations. If you choose not to participate, you will still receive all the services you usually do, and your decision will be respected without any repercussions. However, if you have already participated in an interview or group discussion, you may request that the information provided by you not be used in the research study.

### **Procedures**

We kindly request your assistance in assessing the implementation of the Montessori approach, particularly regarding key principles such as practical life, culture, numeracy, sensorial, and language. Your participation will help us determine the level of understanding among teachers and school administrators regarding the Montessori approach and its application in teaching. We invite you to participate in this research project. If you agree, you will be asked to:

During the interview, you will be comfortably seated in a designated area at the school. If at any point you prefer not to answer a question, simply indicate so, and the interviewer will proceed to the next one. Only the interviewer and a cameraman will be present unless you request otherwise. Rest assured, any information disclosed during the interview will remain confidential, accessible only to Princess Anne M. Lasconia, Aliya T. Florentino, Harlene Joy A. Incognito, Zoey Ashley G. Ingco, and Sophia Lou P. Legaspi. Although the entire interview will be video-recorded, no participant will be identified by name in the recordings. The recordings will be securely stored on a USB drive, and access will be restricted to the aforementioned individuals. After a period of 27 weeks, the recorded videos will be permanently deleted to uphold confidentiality and privacy.

### **Duration**

The research interview will be conducted at your school, ensuring minimal disruption to your schedule. The entire interview will last approximately one hour and will take place on a single day.

## **Appendix C, Continued**

### **Risks**

The researchers ensure that there are no risks during the interview. We are asking you to answer the questions according to what you feel about it. You do not have to answer if there is a part of the interview if you think the questions are too personal and that will make you uncomfortable and it is totally fine. You do not have to give us any reasons for not answering, or any refusal for some questions during the interview.

### **Benefits**

While there will be no direct benefit to you, your participation in our interview is invaluable as it will aid us in gaining deeper insights into the adherence of the Key Principles of the Montessori approach implemented in your school. This, in turn, will assist us in fulfilling the purpose of this study and advancing our understanding of the subject matter.

### **Reimbursements**

The researchers will not be providing any incentives to your participation. However, we will give you our token of appreciation for your humble consideration, time, and effort that you allot and shared for this interview.

### **Confidentiality**

This letter is meant to reassure you that any information you provide to us during this study will remain confidential. We are writing to inform you that we will be conducting a research study for the 3rd-year researchers of the College of Education at Our Lady of Fatima University, Antipolo Campus with the subject "Analysis on the Montessori Approach in Selected Private Schools in Antipolo City."

As researchers, we recognize how critical it is to protect participant privacy, confidentiality, and any sensitive data that may be gathered throughout the study process. Therefore, we would like to reassure you that:

- All data gathered through the interview will be strictly used for the research study; and no other group or organization will receive access unless authorization from you is permitted.
- All of the collected data will be safely kept, and access will be limited so that only the researchers may access it.
- Any reports or publications resulting from the results of this study will present findings in an aggregate and anonymized format, ensuring that individual participants in this study cannot be identified.
- Throughout the research process, we will maintain the highest possible standards of ethical behavior and confidentiality because we respect your cooperation and participation in our study. Thank you for your attention to this matter.

## Appendix C, Continued

### Sharing the Results

Your confidentiality is paramount to us; therefore, any information you share with us today will remain strictly confidential and will not be disclosed to anyone outside the research team, nor will it be attributed to you by name. The insights gained from this research will be shared with you and your organization before being disseminated to the public. Each participant will receive a summary of the results. Subsequently, the findings will be published to facilitate learning and understanding among other interested individuals.

### Right to Refuse or Withdraw

Participants in this research interview have the right to refuse or withdraw their participation at any time without facing any consequences. Your decision to participate or withdraw will be respected, and there will be no pressure or obligation to continue if you choose to withdraw. Your comfort and autonomy are of utmost importance to us, and we encourage you to exercise your right to refuse or withdraw at any stage of the interview process.

### Who to Contact

Should you have any concerns, queries, or require additional information, please feel free to contact any of the following: [Princess Anne M. Lasconia, +63 942 974 2634, princesslasconia08@gmail.com] . This proposal has been reviewed and approved by the Institutional Ethics Review Committee of Our Lady of Fatima University which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find out more about the IERC, contact Dr. Jenica Ana Rivero at jrivero@fatima.edu.ph.

### Part II: Certificate of Consent

**I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study**

**Print Name of Participant** \_\_\_\_\_

**Signature of Participant** \_\_\_\_\_

**Date** \_\_\_\_\_

**Day/month/year**

## Appendix C, Continued

## Part II: Certificate of Consent

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant CRISTINA H. MANUEL

Signature of Participant 

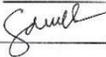
Date 14 / MAY / 2024

Day/month/year

## Part II: Certificate of Consent

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant FRANCESKA D. DE LEON

Signature of Participant 

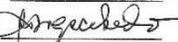
Date 10 / 05 / 2024

Day/month/year

## Part II: Certificate of Consent

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant ROLYN M. ESCOBEDO

Signature of Participant 

Date 17 / 5 / 24

Day/month/year

## Appendix C, Continued

## Part II: Certificate of Consent

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant JEANNE MAR D SIMENES

Signature of Participant 

Date May 27, 2024

Day/month/year

## Part II: Certificate of Consent

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant LETICIA B ARGUELES

Signature of Participant 

Date 06/03/24

Day/month/year

## Appendix D

### Ethical Certificate



R.I.S.E. Tower, Fatima Avenue  
Marulas, Valenzuela City  
283-9754 loc 1204  
ierc@fatima.edu.ph

April 3, 2024

**LASCONIA, PRINCESS ANNE M.**

College of Education

Our Lady of Fatima University

Reference Number: 2024-IERC3-20086

Dear Mr./Ms. Lasconia,

I am pleased to inform you that the research protocol for your research entitled **ANALYSIS ON THE MONTESSORI APPROACH IN SELECTED PRIVATE SCHOOLS IN ANTIPOLO CITY** has been **APPROVED** by the Institutional Ethics Review Committee of the Our Lady of Fatima University. This means that your research protocol has passed the ethical standards imposed by the Philippine Health Research Ethics Board (PHREB).

The following are the standard guidelines for you to follow:

1. This approval will take effect for a period of twelve (12) months. At the end of this period, if the project has not been completed, you are required to accomplish an Application for Continuing Review Form, one month before the period ends, in order to renew the approval for another term. Approval effectivity period: April 3, 2024 to April 3, 2025.
2. Once the study has been completed, or if for any instance terminated at an earlier time, you are required to submit a Study Completion/Termination Form, so that the committee can officially close the protocol.
3. The approved research protocol must be followed at all times in order to protect the integrity of your human subjects. Changes in the protocol and materials utilized in the study necessitate you to submit a Protocol Amendment Form, to be approved by the committee once received.
4. In such occurrence when the protocol was not followed, you are required to accomplish a Protocol Deviation/Violation Form within seven (7) working days after the occurrence in order to document the event.
5. For studies that require longer periods of investigation, a Progress Report Form must be accomplished every semester.
6. Failure to comply with the standard guidelines can lead to disapproval, or termination of the research protocol.

I, together with the ethics committee, am very much excited for the completion of your investigation.

Sincerely,

Jenica Ana R. Rivero, MAN, RN, PGDipHS  
Chair, Institutional Ethics Review Committee  
Our Lady of Fatima University

Form 2.3

**Appendix E****Agreement on Participant Reduction Due to Time Constraints****OUR LADY OF FATIMA  
UNIVERSITY**

We, the undersigned members of the thesis paper entitled "ANALYSIS ON THE MONTESSORI APPROACH IN SELECTED PRIVATE SCHOOLS IN ANTIPOLO CITY," are humbly writing to request your understanding and approval regarding an urgent adjustment we need to make to our research study.

Due to significant and pressing time constraints, we are in the difficult position of needing to reduce the number of participants from six to five. This decision has not been made lightly; it is necessary to ensure we can complete our work properly and on time. We have carefully considered all aspects and have had extensive discussions within our group, realizing that managing six participants would overwhelm our resources and compromise the quality of our research.

We earnestly seek your understanding as we navigate this challenge. The limited timeframe we are facing makes it impractical to manage six participants without severely compromising the integrity of our study and the well-being of our team members.

By focusing on five participants, we are confident that we can still achieve a meaningful and effective study, ensuring high-quality results within the restricted period available to us. Each member of our group is deeply committed to this revised plan and to meeting all our research objectives to the best of our abilities.

We kindly request your approval of this adjustment. Please let us know if you require any further information or if there are any additional steps, we need to take to formalize this change.

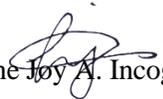
Thank you for your understanding and support.

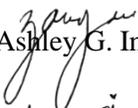
**Appendix E, Continued**

Sincerely,

  
Princess Arnie M. Lasconia

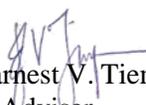
  
Aliya T. Florentino

  
Harlene Joy A. Incognito

  
Zoey Ashley G. Ingco

  
Sophia Lou R. Legaspi

Noted by:

  
Joseph Earnest V. Tiempo, MAEd, LPT  
Research Adviser

## Appendix F

### Plagiarism Test Result

bece\_montessori approach.pdf

#### ORIGINALITY REPORT

<b>10%</b>	<b>4%</b>	<b>0%</b>	<b>9%</b>
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

#### PRIMARY SOURCES

<b>1</b>	Submitted to Our Lady of Fatima University Student Paper	<b>8%</b>
<b>2</b>	eric.ed.gov Internet Source	<b>1%</b>
<b>3</b>	www.bartleby.com Internet Source	<b>&lt;1%</b>
<b>4</b>	sophia.stkate.edu Internet Source	<b>&lt;1%</b>
<b>5</b>	northshoremontessori.com Internet Source	<b>&lt;1%</b>
<b>6</b>	dergipark.org.tr Internet Source	<b>&lt;1%</b>
<b>7</b>	Submitted to Wesley Institute Student Paper	<b>&lt;1%</b>
<b>8</b>	Submitted to Namibian College of Open Learning Student Paper	<b>&lt;1%</b>
<b>9</b>	babbeldasu.wixsite.com Internet Source	<b>&lt;1%</b>



**Appendix H**  
**Research Budget**

	<b>Price</b>
<b>Special Exam fee</b>	₱3,125
<b>Food</b>	₱1,370
<b>Token</b>	₱465
<b>Fare/Transportation</b>	₱3,325
<b>Other expenses</b>	₱350
	<b>Total=₱8,635</b>

**Appendix I**  
**Transcription**

**Program Head**

<b>PRACTICAL LIFE</b>	<b>Transcription Data</b>
1. How does Montessori's practical life curriculum help the child show a sense of independence and sense of responsibility in daily activities?	Montessori Practical Life Curriculum is designed to develop a child's sense of independence by providing them with activities that are relevant to their daily lives. Practical life activities like pouring liquids, spooning, and transferring grains develop essential life skills that contribute to their being independent, as this is what we do in real life. Children encounter challenges while engaging in practical life activities.
2. How do you encourage children's connection with nature through school activities?	Learning activities that involve nature such as planting, watering, observing plants grow are part of their activities here in school. They are also introduced to different parts of plants and trees, animals, and even life cycles of living things. This is part of their curriculum.
3. How do Montessori practical life materials help the student progress in terms of their care of self, independence and concentration?	Montessori practical life activities also include tasks related to self-care, such as dressing, buttoning, and tying shoelaces. By mastering these skills, children gain a sense of independence and learn to take care of themselves without needing the help of adults.
<b>SENSORIAL</b>	
4. How does the Montessori approach integrate color and shape recognition into classroom activities?	Colors and shapes are incorporated in the student's exploration of the different materials. A variety of sensorial materials enable the child to learn about colors and shapes. Geometric solids help them identify three-dimensional shapes. The color tablets, box too, help them identify colors and their gradation.
5. How do Montessori approaches incorporate size and weight discrimination for the promotion of cognitive development and a sense of balance?	One of the ways of promoting cognitive development and sense of balance through size and weight discrimination is by allowing the students to manipulate the materials, particularly the pink tower and the brown stairs. Through these materials, the children learn the concept of size and weight.
6. How do you practice the usage of five senses in the Montessori curriculum?	Montessori curriculum emphasizes hands-on, purposeful activities targeting the children to become capable and independent. And this is achieved by

	allowing the students to explore, observe, and manipulate the materials.
<b>LANGUAGE</b>	
7. How do you integrate phonics and comprehension strategies within the Montessori curriculum to introduce reading, comprehension, and fluency?	Montessori approach starts with phonetic awareness as the foundation for reading. Children are introduced to the sounds of letters through various activities such as sandpaper letters where they trace the shape of each letter while saying its corresponding sound. So when children have mastered the sound, they are able to gradually read.
8. How does the Montessori program help students develop good communication skills through writing, letter mastery, reading and drawing exercises, and storytelling?	Through conversations, stories, songs, and rhymes, children develop vocabulary, comprehension, and communication skills.
9. How does the Montessori approach be effectively applied to facilitate and enhance the socialization skills among students?	Children should be engaged in group discussions, singing during circle time, role-playing, group games, and show-and-tell activities. These greatly develop their socialization skills.
<b>NUMERACY</b>	
10. In what ways do materials such as beads serve as tangible representations to aid in the comprehension of concrete, pictorial, and abstract numerical concepts?	Materials such as beads, to be precise, the color bead set, represent correct or concrete picture of the numerical concepts.
11. How do the interactive techniques involving three-part cards and puzzles in Montessori numeracy instruction synergistically enhance students' mathematical comprehension and problem-solving?	The interactive cards, classified cards, or three-part cards can be used to introduce and reinforce number concepts such as number recognition, quantity, and number-word association. Children can match the numerical card with its corresponding quantity and label helping them develop a concrete understanding of numbers and their representations.
12. In what ways do wooden blocks contribute to the development of a student's understanding of geometry?	Using wooden blocks provide hands-on, concrete experiences for children to explore and understand abstract mathematical ideas. As children build structures using blocks of different sizes and shapes, they are exploring concepts such as symmetry, balance, stability, and spatial orientation.

<b>CULTURAL</b>	
13. How can you use the Montessori materials to teach about the world and its continents?	Specially provided materials such as the globe and the seven continent wood puzzles are used to introduce the seven continents. And this even comes with a song that they can easily learn. So that's how we teach the continents to the children using the Montessori approach.
14. How does the Montessori curriculum expand students' global perspectives and cultivate their interest in knowing more about the world, continents, countries, and people?	Through the cultural life learning area, the children are introduced to the world. The curriculum covers land and water forms, flags of the countries, and the seven continents.
15. How does the Montessori education models instill a sense of social responsibility and empathy in students, encouraging them to make positive contributions to society?	Montessori education model instills a sense of social responsibility and empathy in students through a nurturing learning environment. Montessori students develop the knowledge, skills, and attitudes needed to make positive contributions to the society.

**Teacher A**

<b>PRACTICAL LIFE</b>	<b>Transcription Data</b>
1. How does Montessori's practical life curriculum help the child show a sense of independence and sense of responsibility in daily activities?	Practical life. Number one, so Montessori practical life helps the child show sense of independence and responsibility through constant learning and experience, experience of this daily practical life activities. The child develops the confidence to do such this uhm activities on their own.
2. How do you encourage children's connection with nature through school activities?	So number two, in the school, we expose the children to nature by having different activities such as planting, observing, and taking care of their plants. And we also have some lessons in cultural life that involves the different parts of animals and plants. So as you can see here naman din sa room namin, kung na-browse niyo na siya, meron kaming different uhm Montessori materials na sila talaga yung nag mamanipluate, so ayun.
3. How do Montessori practical life materials help the student progress in terms of their care of self, independence and concentration?	On Number three, by uhm by having the Montessori materials, the children have the an-advantage to learn easier by manipulating or working on the materials on their own and using their own hands through touching, performing the tasks such as bottoning, sipping, shoe-lacing, using the dressing frames like that, yan.

<b>SENSORIAL</b>	
4. How does the Montessori approach integrate color and shape recognition into classroom activities?	Sensorial, number four. The good thing with Montessori approach in introducing shapes and color to the children uhm is there a uhm that they are specially designed for them, materials that allow them to recognize the shape and colors by touching and looking at concrete shapes and colors. The wooden basic shape, inset, and the colored tablets are basic Montessori materials that the children manipulate. So yan kung nag roroam around na kayo, marami talaga siyang Montessori materials na hindi lang siya basta design, uhm talagang namamanipulate ng mga bata.
5. How do Montessori approaches incorporate size and weight discrimination for the promotion of cognitive development and a sense of balance?	Number five. Size and weight discrimination are discovered by the children through the use of the pink tower. Yan we have here a pink tower. Ina-arrange nila yan properly, and then by that by simply arranging the pink tower according to their size, the children unconsciously derive the concept of size and weight discrimination.
6. How do you practice the usage of five senses in the Montessori curriculum?	Let's see, number six. Usage of the five senses is practiced evidently daily. So, the children are allowed to explore and move around, work, and discover on their own.
<b>LANGUAGE</b>	
7. How do you integrate phonics and comprehension strategies within the Montessori curriculum to introduce reading, comprehension, and fluency?	Language, number seven. So phonics and word recognition are taught using the sandpaper letters. The letters, as well as the way of writing them, are learned by the children easier with the help of the sandpaper letters. The sound of the uhm, The letters, as well as the way of writing them, are learned by the children easier with the help of the sandpaper letters. And also the movable alphabets. So we have different movable alphabets and the sandpaper, there yung nakikita, yung blue and red yon.
8. How does the Montessori program help students develop good communication skills through writing, letter mastery, reading and drawing exercises, and storytelling?	Number eight. So some of the programs of the school are music and movement. Role playing, show and tell, and dress up day. So those are some of the programs that we have here. And those can help develop the student's communication skills.
9. How does the Montessori approach be effectively applied to facilitate and enhance the socialization skills among students?	So number nine. Allowing the children to speak and express themselves help develop their social skills. More particularly, their confidence in themselves.

<b>NUMERACY</b>	
10. In what ways do materials such as beads serve as tangible representations to aid in the comprehension of concrete, pictorial, and abstract numerical concepts?	Numeracy. These materials mentioned are tangible and this helps children to understand and grasp the numerical concepts in a concrete picture.
11. How do the interactive techniques involving three-part cards and puzzles in Montessori numeracy instruction synergistically enhance students' mathematical comprehension and problem-solving?	Eleven. The three-part card or classified cards help children learn the things around them and recognize their needs.
12. In what ways do wooden blocks contribute to the development of a student's understanding of geometry?	Twelve. As children play with blocks, the children are able to manipulate real and concrete objects and they can learn the concept of shapes, weight, and size as well as coordination of the eye and hand."
<b>CULTURAL</b>	
13. How can you use the Montessori materials to teach about the world and its continents?	Cultural. 13. So, cultural life in Montessori has a number of materials that help introduce the world to the children. Land and water form trays introduce the land and water forms such as island, lake, cape, bay, and peninsula. So, just like that one. Medyo natatago siya pero yun yun.  Nilagyan lang siya ng water para mag form talaga siya ng lake. International flags are used to introduce different countries and the seven continents. Wooden insets teach the students the seven continents of the world. This one.
14. How does the Montessori curriculum expand students' global perspectives and cultivate their interest in knowing more about the world, continents, countries, and people?	Number 14. Montessori curriculum arouse, aroused the interest and curiosity of the students to learn about the bigger world through cultural life.
15. How does the Montessori education models instill a sense of social responsibility and empathy in students, encouraging them to make positive contributions to society?	Number 15, Montessori education evolves in the philosophy of respect, order, discipline, independence, and freedom with responsibility. This, when imbibed by the students, will promote positive attitude and behavior.

**Principal**

<b>PRACTICAL LIFE</b>	<b>Transcription Data</b>
1. How does Montessori's practical life curriculum help the child show a sense of independence and sense of responsibility in daily activities?	The purpose and aim of Practical Life is to help the child gain control in the coordination of movement and help the child to gain independence and to adapt to his society. Practical life exercises are important, they do not only teach the child the direct skills, but also indirectly prepare him for all of his life's work. Practical Life is a foundation for an independent and happy individual.
2. How do you encourage children's connection with nature through school activities?	
3. How do Montessori practical life materials help the student progress in terms of their care of self, independence and concentration?	
<b>SENSORIAL</b>	
4. How does the Montessori approach integrate color and shape recognition into classroom activities?	
5. How do Montessori approaches incorporate size and weight discrimination for the promotion of cognitive development and a sense of balance?	
6. How do you practice the usage of five senses in the Montessori curriculum?	
<b>LANGUAGE</b>	
7. How do you integrate phonics and comprehension strategies within the Montessori curriculum to introduce reading, comprehension, and fluency?	
8. How does the Montessori program help students develop good communication skills through writing, letter mastery, reading and drawing exercises, and storytelling?	

9. How does the Montessori approach be effectively applied to facilitate and enhance the socialization skills among students?	writing, letter mastery, reading, storytelling and drawing.
<b>NUMERACY</b>	
10. In what ways do materials such as beads serve as tangible representations to aid in the comprehension of concrete, pictorial, and abstract numerical concepts?	In the Montessori classroom, five families with Math are presented to the child arithmetic, algebra, geometry, statistics and calculus. The concepts covered in Primary Class are numeration, decimal system, computation, the arithmetic tables, whole numbers, fractions and positive numbers. The use of beads, blocks, puzzles and number cards are very useful to enhance students' mathematical comprehension and problem solving. Students have first hand experience of counting. Learners learn best when the lesson is arranged from simple to complex. Learners need the guidance of the teachers until they become self-reliant.
11. How do the interactive techniques involving three-part cards and puzzles in Montessori numeracy instruction synergistically enhance students' mathematical comprehension and problem-solving?	
12. In what ways do wooden blocks contribute to the development of a student's understanding of geometry?	
<b>CULTURAL</b>	
13. How can you use the Montessori materials to teach about the world and its continents?	The teachers use maps, globes for the students to comprehend and have interest in knowing about the world, continents, countries and people, also through pictures. The teacher will present true to life stories about the people around the world, continents and other countries. The teachers show pictures of different people in different countries and talk about their culture, costume and traditions. From there they can picture the real world they live in. The teacher will discuss that every person can help in social responsibility to have positive contributions to society.
14. How does the Montessori curriculum expand students' global perspectives and cultivate their interest in knowing more about the world, continents, countries, and people?	
15. How does the Montessori education models instill a sense of social responsibility and empathy in students, encouraging them to make positive contributions to society?	

**Teacher B**

<b>PRACTICAL LIFE</b>	<b>Transcription Data</b>
1. How does Montessori's practical life curriculum help the child show a sense of independence and sense of responsibility in daily activities?	So, the Montessori practical life curriculum helps the child to become independent and responsible by doing daily activities like daily routine. In entering the school and the classroom, for example, throwing the trash into the trash can, getting their own things inside their bag. When eating, there should be maintained cleanliness on their table. So those are some examples of being independent of the learner in the Montessori school.
2. How do you encourage children's connection with nature through school activities?	So, I encourage my students to connect in the nature. I let the students to experience how the plants grow. So we're going outside within the vicinity of the school. And we have also the outdoor activities like watering the plants, planting the plants if ever. And then sometimes we just, every Friday we have PE. Yeah, we have try to observe the nature. Then the students will have the, what do you call this one, evaluation. What did you do? What did you observe? Something like that.
3. How do Montessori practical life materials help the student progress in terms of their care of self, independence and concentration?	And so the Montessori materials are presented to the child in sequence from easiest to hardest. And in accordance with their developmental needs and interests. Okay, so that is. Sensorial.
<b>SENSORIAL</b>	
4. How does the Montessori approach integrate color and shape recognition into classroom activities?	By using crayons to feel and shade the trace shapes. As you can see there, we have different materials. And feeling the shapes, feeling the colors. We use this one, what do you call that? Blocks, no? Numbering blocks. This one is the numbering block. This one is for identifying the shapes into 3D. So these are materials that we use in order for them to recognize the shape, recognize the colors. Aside from pictures.
5. How do Montessori approaches incorporate size and weight discrimination for the promotion of cognitive development and a sense of balance?	So, Montessori classrooms are equipped with a wide range of hands-on. So we're doing hands-on materials that engage multiple senses. Example, by showing real objects. I'm teaching applying not only the picture but the real image. For example, the apple. So I'm going to bring the real apple and then I talk to them, what is this? I ask them, what is this? What color? They can touch it also. They can hold it also. If it is big or small, they can see it. So by showing through image, not only image

	but also real object of the given lesson. For example, my lesson is about color red. So I bring some objects or food that color red. Easy to identify, big or small, something like that.
6. How do you practice the usage of five senses in the Montessori curriculum?	So, the Montessori education is well-known for the sensory focus. More on focus in the Montessori approach. The five senses is always there, especially in teaching. So we use sensory apparatus, activities, and materials to enhance children's understanding of shapes, colors, textures, sounds, and tastes, and smells. Every time I do some topics, it always involves the five senses.
<b>LANGUAGE</b>	
7. How do you integrate phonics and comprehension strategies within the Montessori curriculum to introduce reading, comprehension, and fluency?	So, I integrate phonics and comprehension strategies. Children learn the sounds of letters through songs. So in introducing the letters to the students, I use songs like ABC, something like that. Then second is the sounds. So through songs, through games sometimes, and hands-on activities with movable alphabet letters. I am using movable alphabet letters in order for them to easily recognize every day in routine. Wherein they recognize the letters at the same time the sounds.
8. How does the Montessori program help students develop good communication skills through writing, letter mastery, reading and drawing exercises, and storytelling?	So, the Montessori program helps the students to develop their abilities. For example, we do some poems. We do some scenarios with sometimes drama. They can do that. Drama, poems, memorization, and to develop their abilities in communication. Sometimes we play role play. So sometimes we're just playing. And then also the self-confidence of the learner. I develop also. Before, they start as timid. But now they can stay in front. They can recite all the time. Sometimes the learner is very shy. But since it's daily routine, so just hold their name, then recite in front. So they develop their self-confidence. That's the Montessori approach. We always apply to the children, to the learner, to develop their self-confidence and abilities. Because they have abilities that they don't show. So that is the Montessori.
9. How does the Montessori approach be effectively applied to facilitate and enhance the socialization skills among students?	As I've said a while ago, they communicate each other by group work. So we do some group activities, although there are only a few of them. But still, I'm not allowing myself that they don't have group activities. So they engage cooperatively. The cooperation of each group, of each learner in the given activities. And also sometimes comprehension solving through thinking that there are some problems. I know this one teacher,

	and the other student does not. Something like that. So that is the way I'm thinking effectively in the child to have a group activity so that they can involve themselves into an activity in the lesson. At the same time, there is communication between students and the learners. I mean the teacher and the learners.
<b>NUMERACY</b>	
10. In what ways do materials such as beads serve as tangible representations to aid in the comprehension of concrete, pictorial, and abstract numerical concepts?	In Number 10, we use manipulative and math instruction. So particularly helpful in getting the children, students to move from the concrete and abstract. It will enhance their comprehension to solving mathematical problems. So as I've said a while ago, those are the materials used in math. So that one, as I've said, for 3D, recognizing the shapes into 3D. This one, we use this as infraction. This one is for numeracy. At least value. And this one is for thumping. So those are the materials we use in math.
11. How do the interactive techniques involving three-part cards and puzzles in Montessori numeracy instruction synergistically enhance students' mathematical comprehension and problem-solving?	So, they can easily understand the problem solving by use of pictures. And at the same time, use of some examples wherein they can think critically with the solution. For example, one plus two, I show some pictures there. And they are the one to think, oh, that is three. Something like that. So by image. And also this one.
12. In what ways do wooden blocks contribute to the development of a student's understanding of geometry?	So they can easily understand the problem solving by use of pictures. And at the same time, use of some examples wherein they can think critically with the solution. For example, one plus two, I show some pictures there. And they are the one to think, oh, that is three. Something like that. So by image. And also this one.
<b>CULTURAL</b>	
13. How can you use the Montessori materials to teach about the world and its continents?	By singing in order to easily memorize by the students. We have, what we call this one, song for continents. North America, South America, something like that. They memorize it. Although sometimes children are very forgetful, sometimes. But through music, through songs, they can easily identify, they can easily memorize the seven continents. Sometimes, if there's no song, they are confused about the seven continents. So through songs, they can easily, with actions, where's the North America, where's the South, something like that so through songs.

<p>14. How does the Montessori curriculum expand students' global perspectives and cultivate their interest in knowing more about the world, continents, countries, and people?</p>	<p>So, I let them explore through visual, like we use the laptops, or we use the monitors, in order for them to familiarize and involve in the different countries, and involve in the different cultures. Or in, oh teacher, that's nice, something amazing. So that is the way that I could put themselves into different countries, into the different cultures, by showing some videos.</p>
<p>15. How does the Montessori education models instill a sense of social responsibility and empathy in students, encouraging them to make positive contributions to society?</p>	<p>So, one of the mission and vision of a Montessori school is to mold the child to be a good citizen of tomorrow. So from the beginning, you say good morning, with a smile, and all the staff, all the students, they greet that one. And then the same time, if the children or if the students don't know how to greet before, since they entered in the Montessori school, they can greet now all day, all the time. Kasi we practice them to be respectful, to be independent, to be prayerful, number one. Kasi diba, we have parang mindset na it's better to mold your behavior, rather than, the next na lang yung academic. So the Montessori school, next, what you call this, the Montessori school more on approach na behavior, at the same being independent. And then after na lang yung academics, if the learner knows how to respect, knows how to be a prayerful child, knows to obey, knows to follow, everything will follow, especially the academics. So that is the culture of a Montessori school.</p>

### Teacher C

<b>PRACTICAL LIFE</b>	<b>Transcription Data</b>
<p>1. How does Montessori's practical life curriculum help the child show a sense of independence and sense of responsibility in daily activities?</p>	<p>Okay, so in the Montessori approach, the teacher lets the learners do on his or her own like opening their food, maintaining the cleanliness of their place, and with that, they will be able to be independent and they will be able to be a responsible child.</p>
<p>2. How do you encourage children's connection with nature through school activities?</p>	<p>So by planting trees, the learners will be the one to plant the trees, watering the plants, and then they will go in to observe or monitor their plant every day.</p>
<p>3. How do Montessori practical life materials help the student progress in terms of their care of self, independence and concentration?</p>	<p>Okay, so with the use of those materials, the learner will practice on their own on how to be independent by doing or using those materials on their own.</p>

<b>SENSORIAL</b>	
4. How does the Montessori approach integrate color and shape recognition into classroom activities?	So by means of pictures and real life objects with different colors and shapes, with that, they will easily recognize the different colors and shapes than the objects that they see.
5. How do Montessori approaches incorporate size and weight discrimination for the promotion of cognitive development and a sense of balance?	Learners can use real objects for them to really classify the differences of the size and weight of an object. They can also feel or touch the objects.
6. How do you practice the usage of five senses in the Montessori curriculum?	So let the learners use the five senses or their five senses in different ways. Example, for sense of sight, the learners will be able to differentiate the objects by term, by color, by shape.
<b>LANGUAGE</b>	
7. How do you integrate phonics and comprehension strategies within the Montessori curriculum to introduce reading, comprehension, and fluency?	Through a song or sometimes by keep on reading a short story with comprehension and reciting in the class.
8. How does the Montessori program help students develop good communication skills through writing, letter mastery, reading and drawing exercises, and storytelling?	So by speaking in English every day inside and outside the school and also by performing in class like role-playing, drama or reciting a poem.
9. How does the Montessori approach be effectively applied to facilitate and enhance the socialization skills among students?	By group activities that includes roleplaying and good conversation by recitation. With that it will enhance their good communication.
<b>NUMERACY</b>	
10. In what ways do materials such as beads serve as tangible representations to aid in the comprehension of concrete, pictorial, and abstract numerical concepts?	So with the use of those materials like this, it will enhance the counting skills of the learners and also their comprehension in math
11. How do the interactive techniques involving three-part cards and puzzles in Montessori numeracy instruction synergistically enhance students' mathematical comprehension and problem-solving?	So the learners easily understand the problem solving with the use of pictures and real-life situations.

12. In what ways do wooden blocks contribute to the development of a student's understanding of geometry?	With the use of the blocks like 3D-shaped blocks, the learners will easily identify the different sets of them and also they will also identify the number of sides, the pieces, the edges, and crevices of a 3D shape.
<b>CULTURAL</b>	
13. How can you use the Montessori materials to teach about the world and its continents?	By the use of globes to better know the countries, using maps, and also watching your videos.
14. How does the Montessori curriculum expand students' global perspectives and cultivate their interest in knowing more about the world, continents, countries, and people?	So through watching different movies or videos that they can fully understand about the world, about their countries, the continents, and also they can possibly relate to that people or the other people that they watch.
15. How does the Montessori education models instill a sense of social responsibility and empathy in students, encouraging them to make positive contributions to society?	By molding them to be more independent, responsible, molding good behavior while they're young, and then for them to be good citizens.

## Appendix J

### About the Researcher

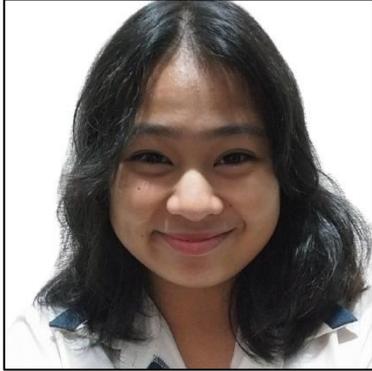


Aliya T. Florentino graduated high school from Sumulong Memorial High School and is an incoming 4th-year student taking the Bachelor in Early Childhood Education program at Our Lady of Fatima University, Antipolo Campus. Her interest in other teaching approaches encouraged her to investigate different school views, ultimately discovering the world of the Montessori approach, wherein the method focuses on encouraging critical thinking, independence, and creativity, which sparked her enthusiasm for incorporating these strategies into her teaching style.

**Appendix J, Continued**



Harlene Joy A. Incognito graduated high school from Antipolo Immaculate Conception School and is an incoming 4th year Bachelor in Early Childhood Education student at Our Lady of Fatima University, Antipolo Campus. Her love for teaching and dedication to children has led her into this field, which motivated her to study further child-centered education that fosters the holistic development of children, which is Montessori education and its approach.

**Appendix J, Continued**

Zoey Ashley G. Ingco graduated from Sacred Heart Academy of La Loma and completed her senior high school education at Siena College Quezon City. She is an incoming fourth-year student pursuing a Bachelor's in Early Childhood Education at Our Lady of Fatima University, Antipolo Campus. Zoey's love for teaching is deeply rooted in her desire to encourage children to learn through the Montessori approach.

**Appendix J, Continued**

Princess Anne M. Lasconia graduated from Junior High School at Nazareth Christian School of Antipolo and her Senior High School at Our Lady of Fatima University-Antipolo Campus, where she continued studying for her college and is currently an incoming fourth-year student taking the program of Bachelor in Early Childhood Education. She became interested in teaching because of her aunt, who inspired her; teaching for her became a calling, especially knowing that Montessori theory is about how it helps a child to be independent, sparks her attention more in teaching children.

**Appendix J, Continued**

Sophia Lou P. Legaspi graduated from Cainta Catholic College and is an incoming fourth-year student majoring in Early Childhood Education at Our Lady of Fatima University, Antipolo Campus. Her passion for child-centered learning and dedication to educational innovation have driven her to explore the Montessori approach in depth.







