

Montessori Approach to Preschool Education: The Case of Educare Program in Naga City

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Abstract

The study was conducted to describe the Montessori approach to preschool education in the case of the Educare program in Naga City. It was geared towards determining the extent of compliance of the Educare program to the Montessori standards in terms of the prepared environment, methods, outcomes, and institutional support. Mixed methods were employed to describe and analyze the compliance of the Educare program with the standards of the Montessori approach. The respondents were the 42 Educare teachers in Naga City and were determined through Random Sampling. The main instruments used were the survey questionnaire, observation tool, checklist, and interview guide in data gathering and analyzed through frequency counting, getting the percentage, and weighted mean. The findings of the study show that the compliance of the Educare program of Naga City was in a “Standard” of the Montessori approach in the prepared environment. The observation in methods garnered a rating of “Satisfactorily,” and the outcomes of Montessori education in sensorial and culture education obtained a “Highest percentage.” The institutional support mainly affected the performance of the Educare program, and it was aligned with the Montessori approach. It is recommended that collaboration from all stakeholders and the school personnel be sustained and strengthened to provide full support by allocating budget funds to improve the existing Educare program that would encourage the support of the community, stakeholders, and parents to achieve optimum success not just in terms of academic but building the social aspect of the learners.

Keywords: Early childhood education, Montessori standards, Educare compliance, Mixed method, Philippines

Introduction

Early childhood education is an essential foundation for lifelong learning; thus, various approaches have been introduced to preschool education. However, the Montessori method continued to be popular and utilized in the country. In Naga City, for instance, this approach has been adopted by the Educare program for several years to address the need for quality early childhood education.

The word “*Montessori*” is already a familiar term in education based on empirical studies on medicine, anthropology, and pedagogy, as introduced by Dr. Montessori, a world-renowned pioneer in early childhood education (Albarico, n.d.). However, Montessori did not become a household name overnight and was initially obscured by leading educational and philosophical ideas influenced by well-

known American educators (Justice, 2017). Montessori introduced this method to low-income children despite children suffering from high deprivation. She continued testing her child-centered educational theories on the children inside the classroom and focused on teaching the child according to their level of development (Pickering, 2017). Meanwhile, the late Mayor Jesse M. Robredo implemented a systematic approach to address the need for quality early education for children from disadvantaged families (Republic Act No. 6972). Under former mayor John G. Bongat, the city government of Naga pursued and established an Educare program that operates educational centers for children from three to five years old using the Montessori method (Executive Order No. 2011-014).

As a result, the 12th Sangguniang Panlungsod of Naga City has approved an ordinance expanding the Quality Universal Education Empowerment in Naga (QUEEN) Program to Educare or E-QUEEN Ordinance. With this amendment, children shall be given equal opportunity to be accepted and included in the Educare program, regardless of their status in life (Ordinance No. 2014-009).

The study then hoped to contribute to the effectiveness of the Educare program as an important initiative to address the need for quality preschool education by determining how well it functions to achieve its goals and identifying areas for improvement. The outcome of this study would be beneficial to the program's stakeholders, as it would give feedback on the instructional method that makes positive learning outcomes possible.

Objectives of the Study

This study aimed to describe the Montessori approach to preschool education in the case of the Educare program in Naga City. Specifically, it sought to fulfill the following specific objectives:

1. Describe the extent of compliance of the Educare program to the Montessori standards in terms of the prepared environment, methods, and outcomes.
2. Find out if institutional supports affect the performance of the Educare program.
3. Determine the improvement of the Educare program to better align with the Montessori approach.

Methodology

Research Design. The study employed qualitative and quantitative research designs. The qualitative design was employed to describe the extent of compliance of the Educare program to the Montessori standards in terms of the prepared environment, methods, outcomes, and institutional supports. The quantitative design was used in analyzing and calculating the data obtained from the standards of the Montessori approach.

Respondents of the Study. The respondents were 42 Educare teachers from 76 Educare centers in Naga City. The teachers were determined through Random Sampling using Slovin Formula with an error tolerance of five percent (5%). The respondents' selection was also directly proportional to the number of Educare centers in every barangay. From the 42 Educare teachers, ten were randomly selected for the interview and ten Educare teachers for observation.

Data Gathering Procedure. The study sought approval by submitting a request letter to the City Government of Naga. The research instruments were validated by experts in the field, including the Educare Program Supervisor and selected Private Montessori School teachers. The survey instrument was adapted from the Montessori Rating Scale Early Childhood Environment (MRS ECE) and used to gather

data for the Montessori-prepared environment. An observation tool was utilized to record the Montessori methods, and an interview was conducted on the Montessori outcomes and institutional support. Since the study had human participants, the teachers' names were deleted during data analysis to ensure the confidentiality and anonymity of their responses.

Statistical Treatment of Data. The study used the percentage to present and compare the data to the survey results for the different items under the prepared environment and was used to determine the number of teachers who find the indicators of outcomes evident among the students. A weighted mean was obtained to describe the quality of services in the prepared environment and was used to determine the number of characteristics observed by Educare teachers under methods along structural, instructional, and lesson. The ratings were used for the quality of the Montessori education services and the characteristics observed in the methods. Correspondingly, the data gathered through the qualitative method were transcribed and given codes to generate different themes relevant to the inquiry on institutional support.

Results and Discussion

1. Compliance of the Educare Program with the Montessori Standards in the Prepared Environment

Table 1

Compliance with the Educare program in the prepared environment along with the different learning areas

Description	OM	I	R
Zoology	1.82	S	1
Language Arts	1.79	S	2.5
Botany	1.79	S	2.5
Sensorial	1.77	S	4.5
Mathematics	1.77	S	4.5
Music and Movement	1.77	S	4.5
Furnishing	1.75	S	7.5
Practical-life	1.75	S	7.5
Geography	1.74	S	9
Interior-space	1.73	S	10
History	1.68	S	11
Over-all Mean (OM)	1.76	S	
Interpretation (I)		S	

Table 1 presents the compliance of the Educare program with the Montessori standards in the prepared environment along with the different learning areas. The result showed that materials in all learning areas under the prepared environment were interpreted as “Standard” (S), with the topmost items of *Zoology* (1.82), which obtained the highest score, followed by the *Language Arts* (1.79) as well as *Botany* (1.79). However, the top least items were identified as *Geography* (1.74), *Interior-space* (1.73), and *History* (1.68).

Zoology materials were helpful and observed in the Educare program as they played an essential role in improving the imagination and creativity of Educare learners. In a Montessori setting, zoology materials are necessary for the learners to develop a responsibility to care for animals (Hegseth, 2017). It is the same way for language arts materials which aided the development of phonemic awareness and sound recognition of the Educare learners. However, other sets of materials were rarely complete and did

not exceed expectations in terms of quality. This finding counters the proposition of Almeda et al. (2010) that the materials in language arts should be provided because the activities in these materials may develop other related developmental domains.

Likewise, botany materials are considered tangible objects that will significantly help master and familiarize the things around them. Most of the materials in botany were provided in the Educare centers in Naga City. In support of the Montessori principle, there should always be a live plant and animal to raise awareness of nature in the learning environment (Durakoglu, 2014).

On the other hand, Educare centers in Naga City need geographical materials that adhere to the Montessori curriculum. These materials are of great help in providing opportunities for Educare learners to develop their skills in geography.

Moreover, Educare centers have generally complied with the interior-space requirements of a Montessori school. There are no prescribed shapes for the environment of Montessori, but the size is a consideration in licensing and organizing children into a group. It maps how the children interact with other children to navigate comfortably, and some children may find what they consider “safe” (Brown & Lewis, 2017).

Lastly, the history area was found to have relevant materials but not entirely adequate to achieve the learning goals in this area. In history, Educare teachers must be creative in presenting the activity in a class because some centers have a deficiency in the provision of History materials per the standard level of the Montessori method.

2. Observation from the Structural Aspect of the Montessori Approach under Methods

Table 2

Observation from the Structural aspect of the Montessori approach under Methods

Nine Areas of the Structural Aspect	Average Rating
Tables/Chairs	3.8 ≈4
Furniture/Fixture	3.7 ≈4
Children’s Workspace	3
Art/Décor	3.8 ≈4
References	3.7 ≈ 4
Restrooms	3.1 ≈3
Environment	3.8 ≈4
Montessori Materials	3.2 ≈3
Playground	2.4 ≈2

Legend:

- 5 fully meets the requirements/characteristics
- 4 meets only 4 out of 5 requirements/characteristics
- 3 meets only 3 out of 5 requirements/characteristics
- 2 meets only 2 out of 5 requirements/characteristics
- 1 meets only 1 out of 5 requirements/characteristics

Table 2 presents the observation from the Structural aspect of the Montessori approach along with nine areas with corresponding characteristics under Methods. The result showed that areas like *tables/chairs*, *furniture/fixture*, *art/decor*, *references*, and *environment* (4) got the highest rating followed by *children's workspace*, *restrooms*, *Montessori materials* (3), and *playground* (2).

It was observed that some of the materials did not meet the standards and were at a low level, especially on safety measures. Furthermore, Educare centers need improvement in terms of *furniture and*

fixture, most especially in children's workspace since size and space under interior space affect the children's movement in the Montessori environment.

3. Observation from the Instructional Aspect of the Montessori Approach under Methods

Table 3

Observation from the Instructional aspect of the Montessori approach under Methods

Seven Areas of the Instructional Aspect	Average Rating
Teacher's Training	1
Knowledge of the Subject Matter	3.6 ≈4
Skills in Handling Class	3.8 ≈4
Demeanor	4.5 ≈5
Language	3.6 ≈4
Neatness	4.1 ≈4
Individual Reports	4.4 ≈4

Table 3 presents the observation from the Instructional aspect of the Montessori approach along with seven areas with corresponding characteristics under Methods. The result showed that the area of *Teacher's Demeanor* (5) got the highest rating, followed by *Knowledge of Subject Matter*, *Skills in Handling Class*, *Language*, *Neatness*, *Individual Reports* (4), and *Training* (1). It was observed that the Educare program provided only one seminar or training in a year on the Montessori approach under teacher's training. The objective of the training is to update and refresh the teachers' skills and knowledge in line with the new trends in the Montessori curriculum. According to Barbieru (2016), if the teachers know their role in the Montessori school, not just the program will benefit but also the children enrolled.

4. Observation from the Lesson Aspect of the Montessori Approach under Methods

Table 4

Observation from the Lesson aspect of the Montessori approach under Methods

Three Areas of the Lesson Aspect	Average Rating
Teacher-Pupil Interaction	3.7 ≈4
Pupil-Materials Interaction	2.5 ≈3
Pupil-Pupil Interaction	2.9 ≈3

Table 4 presents the observation from the Lesson aspect of the Montessori approach along with three areas with corresponding characteristics under Methods. The result showed that the area of *Teacher-Pupil Interaction* (4) got the highest rating, followed by the *Pupil-Materials Interaction* and *Pupil-Pupil Interaction* (3).

Teachers have also used the traditional way of teaching. The pupil-material engagement in the classroom only happened during playtime but not during the lesson since the teachers mostly used the traditional approach. The findings suggest that pupil-pupil interaction is not very evident since the Educare teachers follow the Montessori Approach and combine it with the traditional teaching approach depending on their perceived characteristics and the level of the children.

5. Compliance of the Educare Program with the Montessori Approach in the practical-life education

Table 5 presents the compliance of the Educare program with the Montessori approach under outcomes in practical-life education. The result showed that under the practical-life education area, two indicators (70 percent) got the highest percentage of Montessori outcomes while six (30 percent) got the lowest percentage of school outcomes.

Table 5
Compliance with the Educare program under Outcomes in the practical-life education

Montessori Outcomes in Practical-Life Education	Evident (%)
Voices are quiet/peaceful	60
Speak carefully/calmly	60
Use steps of peaceful resolution	60
Use a respectful tone	60
Use please/thanks to each other	60
Speak next to each other quietly	50
Pour solids/liquids into the container	50
Fold the cloth in different sizes	70
Manipulate dressing frames	70
Polish materials properly	30
Wash hands properly	30
Cut different shapes through scissors	40
Open/close jars	30
Arrange flowers beautifully	30
Lock/unlock different boxes	50
Weave a sewing sequence	30
Manipulate simple carpentry tools	30
Water plants/feed animals properly	60
Maintain a room appropriate to age	60
Read/write three-letter simple words	60
Average	47%

It implies that even though the practical-life materials attained the Montessori standard, the materials' availability still affects the children's outcomes. If some of the materials are not present in the environment, children may encounter difficulty learning practical-life skills; thus, the learner's outcomes will be affected (Bhatia, 2015).

6. Compliance of the Educare Program with the Montessori Approach in sensorial education

Table 6
Compliance with the Educare program under Outcomes in sensorial education

Montessori Outcomes in Sensorial Education	Evident (%)
Follow directions cooperatively	70
Respond to signals	60
Identify objects-sense of sight	70
Identify smell-sense of smell	70
Identify objects-sense of hearing	70
Identify objects-sense of touch	70
Identify the taste of food-sense of taste	70
Open/close the door quietly	30
Classify sensory experiences	70
Express feelings	70
Average	63%

Table 6 presents the compliance of the Educare program with the Montessori approach under outcomes in sensorial education. The result showed that under the sensorial education area, eight indicators (70 percent) obtained the highest percentage of Montessori outcomes, while one indicator (30 percent) obtained the lowest percentage of school outcomes.

It implies that children can achieve the highest learning performance when exposed to materials designed for sensory activities. The Educare program provided much of the materials to each center in Naga City that the learners can use for sensory activities. Higher performance, greater development, and sensorial activity are evident in the Educare centers.

7. Compliance of the Educare Program with the Montessori Approach in language education

Table 7

Compliance of the Educare program under Outcomes in language education

Montessori Outcomes in Language Education	Evident (%)
Sound the letters of the alphabet	70
Identify small/big letters	70
Compose simple words	60
Identify different objects	70
Read the work of others	30
Communicate using language/feelings	70
Identify consonant/vowel sounds	70
Read simple short stories	30
Identify simple grammar	40
Understand words/objects	40
Average	52%

Table 7 presents the compliance of the Educare program with the Montessori approach under outcomes in language education. The result showed that five indicators (70 percent) obtained the highest percentage of Montessori outcomes under the language education area. In comparison, two indicators (30 percent) obtained the lowest percentage of student outcomes.

It implies that among the developments listed in language education, students have difficulty reading simple short stories. This finding supports Javier's (2012) study that the cause of students' poor reading comprehension is the lack of context knowledge in the structural usage of the language. Likewise, teachers' lack of reading instructional materials hindered practical teaching communication skills (Albeshar, 2012).

8. Compliance of the Educare Program with the Montessori Approach in mathematics education

Table 8

Compliance of the Educare program under Outcomes in mathematics education

Montessori Outcomes in Mathematics Education	Evident (%)
Recognize 1-100	70
Count 1-10-50-100	70
Know the number sequence	70
Add one-digit number	60
Divide one-digit number	30
Multiply one-digit number	30
Subtract one-digit number	30
Identify more than/less than/equal sign	70
Average	50%

Table 8 presents the compliance of the Educare program with the Montessori approach under outcomes in mathematics education. The result showed that four indicators (70 percent) got the highest percentage observed in students' performance in the mathematics education area. However, three indicators (30 percent) got the lowest percentage in students' outcomes.

It implies that the learners have gained knowledge and skills from the basic mathematics concepts but need to focus more on other learning competencies expected in the Montessori curriculum, which go beyond recognizing the number concepts. Furthermore, the availability of materials in mathematics affects how the learners understand and apply mathematical equations (Atli et al., 2016).

9. Compliance of the Educare Program with the Montessori Approach in culture education

Table 9
 Compliance of the Educare program under Outcomes in culture education

Montessori Outcomes in Culture Education	Evident (%)
Sing/memorize songs	50
Read stories	70
Identify colors	70
Color/draw accurately	60
Know the different weather	70
Name living/non-living things	70
Name plants/animals	70
Identify the things living in the air/land/water	70
Identify the parts of our flag	40
Identify places in the country	60
Know the days of the week	70
Name months in a year	70
Average	63%

Table 9 presents the compliance of the Educare program with the Montessori approach under outcomes in culture education. The result showed that under the culture education area, eight indicators (70 percent) obtained the highest percentage, while one indicator (40 percent) obtained the lowest percentage.

It implies that cultural education has the most substantial evidence of achievement in the different learning areas assessed in the Educare program. Cultural education in the Montessori program allows children to explore the larger world. As part of a rich exploration of the world's different cultures, the children learn about the continents' people, weather, environment, and animals (Ungerer, 2017).

10. Institutional Support in Prepared Environment

Table 10
 Institutional support in Prepared Environment

Sample Quotes	Subtheme
'The children easily break some of the given materials'	Quality of the materials
'There is no enough space/place of the materials and some of the materials lost'	Space of the classrooms
'The materials are not in proper order because of the size of the room'	Size of the classrooms
'The government provides only sensorial materials'	Lack of materials

Table 10 shows how logistical supports in the quality of the materials, size, and space of the classrooms, and lack of Montessori materials generally affect the performance of the Educare centers in Naga City. One of the core components of the Montessori approach is the prepared environment where

the materials they prefer to explore should be prepared and provided. Without logistical support, not just the prepared environment will be affected, but also the methods and outcomes of the children enrolled in the program (Crain, 2016).

11. Institutional Support in Methods

Table 11

Institutional support in Methods

Sample Quotes	Subtheme
'We teach children depending on their abilities and characteristics'	Developmentally appropriate practices/methods
'We used traditional methods, not just Montessori approach'	The approach to teaching the children
'They use Montessori materials during their playtime'	Alignment of methods to instructional materials
'The language I used is Bikol because of mother tongue curriculum'	Medium of instruction

Table 11 reveals how institutional supports in teaching methods primarily affect the performance of the Educare centers in Naga City. The teacher has a significant role not just in the prepared environment but also in teaching the learners. The prepared environment and methods of the teacher are interconnected; if one of the aspects of the Montessori approach has low performance, it also affects the other factors, especially the outcomes (Prowant, 2018).

12. Institutional Support in Outcomes

Table 12

Institutional support in Outcomes

Sample Quotes	Subtheme
'Some of the parents lied to the skills of their child'	Lack of parent's support
'Some can already write their names, but some did not know yet how to write their names'	Lack of skill's practice
'Some children have difficulty in learning the lessons'	Lack of knowledge retention
'Sometimes we need to repeat our lesson for the children to remember it'	Lack of study strategies

Table 12 confirms how parents' support dramatically affects the Educare program's performance, especially for the children enrolled in the centers. The children's attention focused previously on their parents, who had already disregarded their activities. The parent's role in the child's learning is one factor in determining a child's educational progress. Sometimes most parents give all the responsibility to the teachers. Support coming from the parents is essential because it can substantially impact the Educare program's performance in Naga City.

Conclusions

Generally, the Educare Program of Naga City complied with the Montessori teaching standards in the prepared environment, methods, and outcomes. Most of the areas mentioned have complied with and met the standard level in addressing the concerns of using the Montessori Approach in teaching and learning.

The institutional support greatly affected the performance of the Educare Program; thus, effort and evident support were observed. The aid of the Local Government was visible in meeting the needs of the

Educare pupils. However, human support from parents is a major problem for the Educare teachers of Naga City.

The Educare program was aligned with the Montessori Approach regarding subject matter delivery and interactive discussion with almost complete materials, mode, and teaching approach that affect the learners' academic performance.

Recommendations

To achieve an effective and efficient Educare program in Naga City with the Montessori approach, the Local Government Unit (LGU) may allocate more budget for the prepared environment and methods both in structural and instructional aspects.

The administrators of Educare may collaborate with the parents and stakeholders by providing specific activities like regular conduct of the Parent-Teacher Association (PTA) meeting and other capacity building to achieve a supportive learning environment in the Montessori Education process.

The Educare program may revisit the Montessori curriculum to help ensure that the Local Government Unit (LGU) provides proper budget allocation to the standards of Montessori to achieve quality Educare teachers and higher academic performance among Educare learners.

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