

## **Scholarly View on Montessori Nursery and Primary School Effectiveness in Nigeria**

**Oluwaseyi K. RAHEEM<sup>1</sup> & Afolakemi O. OREDEIN<sup>2</sup>**

+2348065521715,+2348055145060

ORCID NO: <https://orcid.org/0009-0009-1815-6146>

oluseyiraheem@gmail.com., opefolake1@yahoo.com

<sup>1 & 2</sup>Department of Educational Management

Faculty of Arts and Education

Lead City University, Ibadan, Nigeria

Nursery and primary education is a weapon for acquiring skills, relevant knowledge and habit for surviving in the changing world. For any stage in education to achieve its milestones, there must be level of school effectiveness. This effectiveness relates to one of the efforts made by school to achieve what it was really created for, and make changes toward student level of achievement. To achieve this effectiveness, there is a new innovation called Montessori education where there must be a match between the child's natural interests and the available activities to help children learn through their own experience and at their own pace to achieve the nursery and primary milestones. While in Nigeria, there seem to be numbers of Montessori schools even though very few of these Montessori schools understand what the approach or method is really all about. This paper adopts a systematic approach to assess the availability and adoption of Montessori Method of education in contemporary nursery and primary schools in Nigeria and how it relates school effectiveness. The paper compares both the conventional ways of teaching and Montessori methods of education which shows that unlike the conventional method that believes in grading systems putting unnecessarily pressure on the children while the Montessori method considers helping the child not just mentally but also physically and emotionally with freedom of movement and choice at their own pace for effective learning. The associated benefits and challenges of Montessori education were also identified, while it also suggests the way forward. The Social Cognitive Theory and the Diffusion of Innovation Theory were used to underpin the study.

**Keywords:** Montessori education, School effectiveness, Nursery and Primary Education, Social Cognitive Theory, Diffusion of Innovation Theory

### **Introduction**

In every modern society, it is believed that education is the key to national development and there is a need to maintain every level of education especially the nursery and primary level as they are the bedrock upon which all other educational levels build. Since it is very important for a child to be

inculcated with required knowledge so as to be well absorbed into the society, therefore early childhood education helps a child inculcate well into the society. It is a weapon for acquiring skills, relevant knowledge and habit for surviving in the changing world. For any stage in education to achieve its milestones, there must be level of school effectiveness. School effectiveness has been identified as one of the efforts made by school to achieve which it was created and make changes toward student level of achievement. Effectiveness gears toward teaching of basic skills and achieving changes both in cognitive, psychomotor and affective behaviors of a child. Therefore, School effectiveness refers to the level of goal attainment of a school (Modal, 2020). Effectiveness at this level of education is very paramount as it helps create a strong foundation for better academic and social achievement in future life (Jewel, Drew, Akter, Chowdbury, 2020). As this helps with social and emotional development of the child and helps prepare them for primary education.

The study will be reviewed under the following:

- History of Montessori Education
- Montessori Education in Nigeria
- Conventional vs Montessori Nursery and Primary Education
- Montessori Nursery and Primary School Effectiveness
- Benefits of Montessori Method
- Challenges faced using Montessori Method
- Merits and Demerits of Montessori Education
- Theoretical Framework
- Conclusion
- Way Forward

### **Montessori Education**

The history of Montessori education could be traced to over 100 years ago and was first started by Dr. Maria Montessori. Maria Montessori In 1907 started working with children with non-disability in a housing project in a slum district of Rome, where she established her first 'Casa dei Bambini' also known as 'children's house'. This house was meant for children between 3–7-year of age. Using a scientific approach of experimentation and observation, Maria continued to develop her distinctive pedagogy. Consequent upon this project, she posited that "children pass through sensitive periods for learning and several stages of development, and that children's self-construction can be fostered through engaging with self-directed activities in a specially prepared environment" (Marshall, 2017)

Ruth Hurvitz of The Montessori School in Wilton, CT gave a description of a Montessori school thus: (Kennedy, 2019)

The Montessori School's culture is devoted to helping each child grow toward independence by building confidence, competence, self-esteem and respect for

others. More than an approach to education, Montessori is an approach to life. The program at The Montessori School, both in philosophy and pedagogy, is based on the scientific research work of Dr. Maria Montessori and on AMI Montessori training. The School respects children as self-directed individuals and fosters their growth toward independence and social responsibility, while creating a joyful, diverse and family-oriented community.

The foundation of Montessori education can be hinged upon three basic elements which comprised the children, an articulated and prepared environment, and a specially trained teacher. The Montessori environment can further be categorised into three major aspects namely: the physical, temporal and social environments. The physical environment composed of classroom space and contents, including hands-on materials within which the Montessori curriculum for younger students is embedded and which enable children substantial freedom in their activities. The temporal environment, which ideally provides children with uninterrupted, 3-hour work periods daily; while the social environment is where children create a classroom community where they interact and rely on their peers as much as, or more than, their teachers (Lillard & Mchugh, 2019).

The Montessori method is mostly characterised by hands-on learning with Montessori materials, learning in a community, as well as careful teacher observation (Murray, Brown & Barton, 2013). Children in Montessori schools work with specially designed learning materials, with persistent manipulation and investigation until they master the lesson contained in the materials. Under the Montessori method, children are free to learn at their own pace. Thus, each of the children advance through the curriculum as they are ready, guided by the teacher following an individualised learning plan.

### **Montessori Education in Nigeria**

In the National Policy on Education early childhood education has been recognized as pre-primary education and is defined as education that is given in an educational institution to children prior to their entering to primary school (FRN, 2013). The main objective of Montessori Method is to enable children learn naturally and many believe it is the way every child should have the opportunity to learn. The Montessori Method was introduced into Nigeria gradually in small bits for several years and recently has grown to become a force to be reckoned with. Recently there has been an explosion of Montessori awareness in Nigeria, with a proliferation of schools and teacher training programmes for schools using this method. There is a new trend, especially among the nursery and primary schools, in establishing what they tag “Montessori schools” though very few of these Montessori schools understand what the system is really all about. Quite a number of the caregivers in the so-called Montessori schools in Nigeria handle their pupils the same manner in which it is done in a traditional school system. Many of the teachers do not have the knowledge of the basic elements of a Montessori

teaching system and these can be attributed to lack of training. However, the blame is not totally of the teachers, but the schools proprietors who employed them in their school (Dahunsi, 2014).

Most of the schools using the Montessori curriculum are schools that are located in the southern regions of Nigeria. These include states like Lagos, Port Harcourt, Ondo, and only a few in Northern Nigeria which are mostly located in the Federal Capital Territory in the North-Central. From the early 2000s, Nigeria has successfully implemented Montessori teacher-training programs as well as applied the concept of a safe environment and curriculum, although it is very limited in its coverage and application. However, the existence of issues ranging from lack of sufficient training in self-acclaimed teachers to overcrowding of classrooms has proven to pose a stunt in its growth and spread (Bappa, 2021)

### **Conventional vs Montessori Nursery and Primary Education**

Nigeria as a country is very synonymous with the regular or conventional method of education, which is backed up by the National Policy of Education (FRN, 2013). One major difference between Montessori's approach to early childhood education and the approach found in many nursery and primary schools is the adoption of elements of the multiple intelligences theory. The multiple intelligences theory proposes that children do not just learn using reading and writing intelligences (Kennedy, 2019)

Montessori's method differed from conventional teaching and learning because it considers the freedom of movement and choice very important for effective students' learning. In the conventional method, students are being confined to desks, but the Montessori method allows the children to circulate freely in the classroom, choosing the activities that they are mostly interested in. Also, student interaction, peer teaching, problem solving, and socialization are encouraged among the students, and they are challenged according to their individual level of ability (Christle, ). The conventional method uses tests and grades as popular methods to measure students' achievement, while the Montessori method, on the other hand, discourages the traditional measurements of achievement, such as tests and grades. Instead, assessment is based on student-developed portfolios and teachers' observational data, where caregivers or teachers help students to make improvements to reach the specified knowledge and skills in each of the curricular areas (Christle,

The explicit teaching of phonics within a rich language context—both spoken and written—is central to the Montessori curriculum. No evaluations have yet pitted phonics teaching in the Montessori classroom versus phonics teaching in the conventional classroom (Marshall, 2017)

### **Montessori Nursery and Primary School Effectiveness**

School effectiveness relates to understanding the functioning of schools, and their effects on their students. School effectiveness has led to major shifts in educational policy in many countries by

emphasizing the accountability of schools and the responsibility of educators to provide all children with opportunities for high achievement, thereby enhancing the need for school improvement (Mortimore, 1991). School effectiveness has pointed to the need for school improvement, in particular by focusing on alterable school factors (Reynolds, 2010). There is interest across the world on the need for better management of schools, the professional development of teachers, and educational innovation/change (

### **Benefits of Montessori Method**

According to the supporters of Montessori Method the benefits to children are many and varied. The most valuable advantage of this early learning approach is that it ignites a love of learning. The supporters claim that benefits include resilience, responsibility, self-confidence, teamwork, problem solving skills as well as creative and scientific thinking.

In Montessori schools the three hours uninterrupted blocks of work time teach children to concentrate on their tasks without distractions. It does not seem to be a matter of how much or what kind of technology you have in a classroom, but it is all about the ability to teach "learning to learn", one of the key competences for lifelong learning according to the European Parliament and the Council of the European Union (Recommendation 2006/962/EC), i.e. the ability to effectively manage one's own learning, either individually or in groups. The Montessori Method seems to have many suitable responses to the challenges of today world of education.

### **Challenges faced using Montessori Method**

Observations from the extant literature have suggested that the commitments of Nigerian government towards nursery and primary education policy have not been encouraging, such that there are many sub-standard, poorly-equipped, pre-primary schools scattered all over the country (Nakpodia, 2011), (Ayoola, 2019). This has been attributed to lack of supervision and inspection to ensure that standard and quality are maintained. There is inadequate provision in teacher education program for specialization in early childhood education, and Montessori method. Sadly, the training of professional teachers in Montessori method in teacher training institutions in Nigeria is almost none-available (Ajayi, 2008), (Obiweluozor, 2015).

Evidences have shown that Montessori schools in Nigeria are typically more expensive and less common compared to the conventional/regular schools. Also, very few of the existing Montessori schools rarely practice what they claim to be, which has inadvertently limited the reach of self-directed learning to students in classrooms and thereby making the method less effective. Studies have shown that teachers with no formal training in early childhood education are often seen managing the children classrooms in privately owned pre-primary schools, while in pre-primary sections of government owned public schools, old female teachers with no qualification in early childhood education are

mostly seconded to children classrooms(Okewole, Iluezi-Ogbedu& Osinowo, 2013), (Osho, Aiyu, Okolie & Onifade, 2014).

The quantity and quality of instructional materials available for any educational programme would determine schools systems capacity for the implementation of the type of educational programme (Chukwbikem, 2013). This connotes that instructional materials and other resources are very germane to successful implementation of Montessori method of education. In spite of this, however, they are not found in many Nigerian private pre-primary schools, especially in the government-owned public nursery and primary schools. This situation has been assessed and reported by many researchers in Nigeria (Okewole, et al, 2014), (Osho, et al, 2014).

The importance of funding to successful implementation of Montessori education in Nigeria cannot be overemphasized. However, it is sad to note that early childhood education in Nigeria is ridiculously and grossly underfunded. This could be linked to the low budgetary allocation by the government to the education sector. This is in line with the report of The Good Planet Foundation on Nigeria "that spending on essentials such as textbooks, instructional materials, in-service training, operations and maintenance is inadequate" (The God Planet Foundation, 2013), (Alabi & Ijjaiya, 2014). There is a prevalence of low caregiver-child ratio in many Nigerian nursery and primary schools. This gives room for less attention for children by the caregivers, and often with less performance. Consequently, children may experience neglect and poor development in all domains. The lower caregiver-child ratio is the scenario in Nigerian at nursery and primary school level (Osho, et al, 2014).

## **Theoretical Framework:**

### **Social Cognitive Theory**

The Social Cognitive Theory is a learning theory propounded by Albert Bandura in the 1960s. The theory was renamed a Social Cognitive Theory in 1986 and it proposes that learning takes place in a social setting, with a dynamic and reciprocal interaction between the person, their environment, and their behaviour. The emphasis on social influence and external and internal social reinforcement are distinctive features of Social Cognitive Theory (Bandura, 1986). The idea provides a framework for analyzing how people shape and are shaped by their surroundings. The theory delves into the processes of observational learning and modelling, as well as the role of self-efficacy in behaviour creation. According to the concept, people are considered as active participants who both influence and are impacted by their surroundings (Devi, 2022).

Social cognitive theory is a learning theory based on the premise that people learn by seeing what others do and don't do, and that these processes are crucial to understanding personality. While social cognitists acknowledge that acquired conduct demonstrated in one's environment has a significant impact on growth, they argue that the particular person (and thus cognition) is just as



essential in determining moral development. People learn by watching others, with the environment, behaviour, and cognition all playing a role in shaping their growth. These three parts are not static or autonomous; rather, they interact with one another in a triadic reciprocal determinism process (Devi, et al, 2017). The purpose of Social Cognitive Theory is to explain how people manage and reinforce their behaviour in order to produce goal-directed conduct that can be sustained over time. The first five constructs were developed as part of the Social Learning Theory, and when the theory evolved into Social Cognitive Theory, the construct of self-efficacy was included (Bandura, et al, 1961).

This theory is adopted for this study because of its relevance to both school effectiveness and innovation in teaching and learning, which is Montessori method of education. In educational research, the Social Cognitive Theory has been employed extensively. Learning, according to the notion, occurs when there is a dynamic and reciprocal relationship between the individual, their environment, and their behaviour.

Mirzaei et al. examined the efficacy of social cognitive theory-based education on school children selected from 20 public primary schools. The findings revealed an increase in all Social Cognitive Theory (SCT) constructs as well as breakfast eating behaviors in intervention group. Also, there was a significant increase in mean score of knowledge in control group at 8 week (Mirzaei, 2019).

The efficacy of a school-based social cognitive intervention for children with autism was conducted among seventy-four children and adolescents. The study showed that children in the intervention group demonstrated significantly greater gains on theory-of-mind and social skill measures. Children's social participation exhibited improvement in home, community, and school settings. The study findings offer promising evidence for a cost-effective program and support of the school-based social skills intervention for children with ASD in Hong Kong (Cheung, 2021). Evidences above and in other literature have establishes the suitability and applicability of SCT to school effectiveness as the theory helps to facilitate goal attainment.

### **Diffusion of Innovation Theory**

This scholarly review adopts the Diffusion of Innovation Theory by Rogers in 1962. The diffusion of innovation theory focuses on the process by which new ideas are spread to the members of a social system. In this context, diffusion refers to the dissemination of new ideas through human interaction, while an innovation is an idea, practice, or object perceived as new by an individual (Rogers & Shoemaker, 1971). The reason for the adoption of some new ideas and non-adoption of others can be explained by looking at the way innovations spread from the main source to potential adopters (of Montessori method of education); and also discovering the factors that aid or prevent the adoption of a new idea or practice.

In order to account for the spread of new ideas at a very basic level of conceptualization, a center-periphery model of innovation diffusion was proposed. This center-periphery model have a

semblance of a wheel with spokes emanating from the center, and is based on three assumptions namely: (1) the innovation to be diffused must be fully realized prior to dissemination, (2) diffusion involves movement of the new idea outward from the center to its ultimate users, and (3) directed diffusion is a centrally managed process of dissemination, training, and provision of resources and incentives (Schon, 1971).

As far as the Montessori method is concerned, the effectiveness of the diffusion model will be determined by the number of new adoptions (that is, how many people are able to adopt the new method of Montessori education). About five attributes of innovations that affect the rate at which a new innovation is diffused and adopted have been identified, and they include: (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability, and (5) observability. The perception of these attributes by a potential adopter of Montessori method will determine to a large extent whether a new method will be adopted or not (Rogers & Shoemaker, 1977).

One of the early adopters of diffusion of innovation theory was Nancy Rambusch who used the theory in her doctoral dissertation to examine the expansion of American Montessori education. The active involvement of Rambusch in the American Montessori movement influenced her perspective of the events, and this point of view is reflected in her analysis. Furthermore, Rambusch's study focuses on her own role as a change agent in the American Montessori movement and does not address other aspects of innovation diffusion such as factors impacting a new idea's rate of dissemination and adoption, or what conditions are necessary for successful implementation to occur. The study of Rambusch used diffusion of innovation theory as a framework for exploring the growth of Montessori education in the United States from a more generalized perspective (Rambusch, 1977).

## **Conclusion**

The Montessori method of education has come to stay in Nigeria and evidences from several educational research have suggested that it is a reliable method that fosters school effectiveness in nursery and primary schools, as well as contributing to the cognitive development of children through self-learning. Montessori is a befitting guide to raising and educating children in nursery and primary schools because of its child-centered nature which assists in understanding the children.

## **Way Forward**

Having identified the effectiveness of Montessori method in nursery and primary schools, and the inherent challenges that prevent the spread of the system, it is therefore recommended that:

- Montessori education in Nigeria should be taken seriously and be introduced fully from preschool so that children can develop life skills that are needed in society. An enriched stimulating environments and high-quality pedagogy provided by better qualified teachers and better quality pedagogy makes learning to take place. The Montessori method can also be inculcated into the



conventional education to facilitate the cognitive development of children in public schools.

- School owners and proprietors in private schools should endeavor to gradually introduce the Montessori method into their school system to further enhance teaching and learning. While doing this, teachers should also be given the required training needed to understand and effectively deploy the Montessori method in their classes.

- Where Montessori is already being practiced, efforts should be made to practice it holistically. If well deployed, these strategies will help assist pupils in effective learning. The teacher must take into account the age of the learners, their level, the setting of the class, the length of the class and the curriculum. The teachers should learn to use different teaching aids to reach all pupils with different learning styles and abilities.

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