

# **Inclusive Education in a Montessori Environment**

A Case Study

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### **Abstract**

This thesis aimed to analyze inclusive education in a Montessori learning environment. Therefore, a case study of a classroom in a Montessori school was taken place to explore teachers' perspectives and approaches towards inclusive education, observe inclusive education practices, and identify inclusive education dimensions that could be present in this environment. It is qualitative research that uses both semi-structured interviews and observations in a form of a field diary to get a deep understanding of how inclusive education takes place in a learning environment that implements Montessori pedagogy. The results show five inclusive dimensions of this learning environment. *Accessibility, Participation, and Learning and Teaching Process* were found by interviews and observations. *Values* and *Conditions* involved information that could be only collected by interviews. However, further observations could be done using the analysis of this study to provide more and even deeper analysis of these topics. Regarding accessibility, the results revealed that there was accessibility related to physical environment and communication and, indeed, this accessibility concerned diversity in learning, social/cultural and developmental aspects. In relation to participation, the results found the principles proposed by Black-Hawkins (2010), that is, participation involves everyone, implies the active right to join in, is concerned with responses to diversity, is based on respectful relationships, is a never-ending process and it is distanced conceptually from the notions of Special Educational Needs (SEN). With regard to learning and teaching process, the results show that teachers prepare their environment and provide individualized attention to better address the diversity in class. Also, values such as sense of belonging, welcoming of diversity, teachers' flexibility, and conflict resolution were found. Finally, four conditions for inclusion were visible: reflection, use of evidence, collaboration and willingness to seek training and support. Thus, the findings of this study suggest that this Montessori learning environment presents many strategies and elements of inclusion and, therefore, it can be considered as inclusive. Since inclusion is a broad and a very deep concept, further research can be done to provide more information, analysis and a deeper understanding of this topic. Also, more perspectives can be collected such as those of teachers of other classrooms, management team or the principal of the school.

**Key words:** inclusive education, inclusion, Montessori, diversity, accessibility, participation, learning, values, conditions.

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## 1 Introduction

Inclusive Education is a global complex issue and involves significant challenges such as the need of alternatives to all forms of segregation; and the imperative need for a rethinking of school innovation (Collet et al., 2022). There have been many faces of educational exclusion such as exclusion from entry into a school, exclusion from regular participation in schools, exclusion from meaningful learning experiences, etc. (Collet et al., 2022). Thus, the progress towards truly inclusive education has been fraught with difficulties, and the school, as we know it since its inception, has been resistant to change for all these years (Sarason, 2003). In other words, the need for an authentic inclusive education is palpable.

According to Schuelka et al. (2019), inclusive education is basically education for a diversity of students in the school. However, until now, the terms: ‘inclusive education’, and, ‘diversity’ have often been collectively used towards ‘an ideal imaginary of homogeneity’, in other words, towards a ‘normalization principle’ by which every student who diverge from the ideal social profile is treated as problematic or deficient (Tarabini, 2019). In this sense, the path to truly inclusive education has been significantly hindered. In accordance with Schuelka et al. (2019), further and continuous reform is required to adjust systems in a way that the diversity of children is embraced rather than seen as an obstacle.

Over the past century, parallel to mainstream education, pedagogies emerged, with the aim to address issues in mainstream education. In the case of the Montessori Method the aims closely connect to issues related to inclusion. Indeed, in their paper, Somma et al. (2023) stress that “the Montessori Method inherently embodies inclusivity” and point out that the Montessori pedagogy assures a supportive and equitable learning environment for all children disregarding their exceptionalities or abilities. Guzmán (2023) argues that Montessori’s environments enable children to experience the diversity as a natural aspect of their context, and underscores the flexibility and the teacher’s training as important aspects of this method that allow for individualized attention which, in turn, is a key element of inclusive education.

In light of the general struggle with inclusion efforts in mainstream education (Tarabini, 2019), and the close theoretical link between the Montessori method and inclusive education, it would be both relevant and important to observe how inclusion is developed in practice in a Montessori learning environment. This research will employ a case study approach to see how the abovementioned issues are approached and dealt in a Montessori learning environment on

a day-to-day basis by analysing teachers' perspectives on these issues and by observing how these perspectives are visible in their classroom practices.

The outcomes of this research could serve several purposes. Firstly, the combination of observations and interviews may be able to show how teachers' perceptions translate to classroom practices. Secondly, it could show how the teachers' perception and classroom practices align with inclusive education dimensions suggested by authors such as Fernández-Blázquez et al. (2022). Thirdly, it may provide valuable insights for more mainstream schools that have been, according to United Nations Educational, Scientific and Cultural Organization [UNESCO] (2020), struggling with inclusion.

## 2 State of Art

The concept of inclusive education is not new (Iivonen, 2024). It has its roots in the United Nations Decade of Disabled Persons (1983-1992), and the UNESCO Salamanca statement in 1994 where it was stated that all children have an equal right to study in a regular school (Iivonen, 2024). In other words, an education for everyone is promoted; an education where the school adapts to the needs of students and not the other way around (Iivonen, 2024).

In fact, Montessori Pedagogy originates from the idea of considering the needs of those children with learning difficulties who tend to be excluded from the regular school (Montero, 2023). Montessori was an advocate for them from the beginning, all her study started with them. Then, after some lectures she gave, a state orthophrenic school was placed under her direction from 1899 to 1901 (Standing, 1957). Those two years, spent with students having some kind of learning difficulties that were excluded from regular schools, resulted in a vast learning experience in the pedagogic field for her (Montessori, 1937). However, she also thought that this method could foster all students learning: the learning of those segregated students, and also the learning process of those students in regular classrooms (Standing, 1957). Thus, the first Children's House, as she named her schools, opened and welcomed all children from 3 to 6 years old (Obregón, 2006), without excluding anyone, in fact, it started with some of the most disadvantaged, and previously unschooled, children in the area (American Montessori Society [AMS], 2024). Hence, the very origins of the Montessori Method are rooted in an intention of making education not only accessible for all, but also of making it inclusive.

The number of studies addressing an evaluation or analysis of inclusive education practices in a Montessori learning environment seems to be limited. In addition, most of them involve only literature review such as those conducted by Albert (2020), Montero (2023), and Caprara & Macchia (2020).

However, recently, two studies were published that stand out for their interest in providing empirical evidence of what has been said in theory: Andrés' (2024) and Guzmán's (2023).

On one side, Andrés (2024) applied questionnaires and a field diary in three schools with two main objectives: identifying the main barriers to inclusion in the schools; along with observing and presenting the relation between the Montessori classroom practices and certain inclusive principles. In her study, Andrés (2024) concluded that, first, Montessori classroom

practices are inclusive and, thus, they foster the development of inclusive practices in the schools; and, secondly, the author also found out some main barriers to inclusion; these are related to the relationship between school and family, teacher training on inclusion; and activities that promote the understanding of differences.

However, there were also some limitations as Andrés (2024) did not conduct her research in Montessori schools but in schools with a Montessori classroom; the differences between these two kinds of institutions can lead to different results. Also, she used questionnaires whose structured nature, as she mentions, can limit the possibility of analysing in depth the individual responses (Andrés, 2024). Furthermore, she also points out the limitation of the context during the period of data collection, which took place during the school year 2021-2022 when some restrictions related to COVID-19 were still ongoing (Andrés, 2024). Finally, as future lines of research, Andrés (2024) stresses the need for continuing to conduct this type of studies.

On the other hand, Guzmán (2023)'s study collected data through interviews and literature review to understand common aspects of Montessori pedagogy and inclusive education. The author concluded that the key element in which they converge is the individual educational response or individualized attention that Montessori offers to each child, and that is also an essential requisite for inclusive education (Guzmán, 2023).

Nevertheless, there are also some limitations to this study. Guzmán (2023) conducted interviews to several professionals of the Montessori method. Notwithstanding, they work in different schools. Thus, a similar limitation to the one described in the previous study is found. None of the studies have focused on a specific school or learning environment. Focusing on a specific learning environment can foster a deeper understanding of it. In addition, this study only carried out interviews for the data collection. Other tools like observations could broaden the research and the perspectives collected (Guzmán, 2023).

In short, the main limitations in the research about this topic, so far, involve, first, the disadvantages of using questionnaires as it is not possible to delve too deeply into participations' responses; secondly, not focusing on a Montessori school itself, but just regular schools with a Montessori classroom or only professionals of the Montessori method who even work in different institutions; thirdly, the researchers used mainly self-reported data, no observations; and, finally, the context of COVID-19 restrictions in which one of the studies was implemented can imply some biases.

Therefore, in this paper, a case study of one Montessori school is presented which aims to contribute further analysis and research to this topic addressing the described limitations by using interviews and observations, conducting the research in one specific Montessori school and in a context where COVID-19 restrictions are not a significant problem anymore.

### 3 Inclusive Education

#### 3.1 Evolution

Inclusion has been implicitly promoted since the Universal Declaration of Human Rights in 1948 and has since been mentioned in several UN Declarations and Conventions: UN Convention on the Rights of the Child in 1989; the World Declaration on Education for All in 1990; the UN Standard Rules on the Equalisation of Opportunities for Persons with Disabilities Rule 6 in 1993; Salamanca Statement & Framework for Action on Special Needs Education and World Education Forum Framework for Action, Dakar , (EFA goals) and Millenium Development Goals in 2000; EFA Flagship on The Right to Education for Persons with Disabilities: Towards Inclusion in 2001; and UN Disability Convention in 2005 (UNESCO, 2005). However, it is interesting to see parallels with the Montessori method that began much earlier; the first Montessori school was opened in 1907, after working for a few years with children who were segregated from school at the time.

Indeed, inclusive education initially focused on children with disabilities (Forlin, 2004). It has its origins in what is called Special Education (UNESCO, 2005). Throughout history, education systems have tried several ways of responding to students with disabilities or who experience learning difficulties (UNESCO, 2005). One way has been providing Special Education as a supplement to general education, and another one offering it as an entirely separate system (UNESCO, 2005). However, offering it as separate systems has been debated from a human rights perspective, but also from an effectiveness one (UNESCO, 2005). Efforts that have involved specialized institutions, programmes, and specialist professionals have caused a differentiation in education with several adverse effects which have generally entailed further exclusion (UNESCO, 2005). Thus, inclusive education has begun to broaden its boundaries in the last decades (Forlin, 2004).

Gradually, “special education practices were moved into the mainstream through an approach known as integration” (UNESCO, 2005). Nevertheless, the major threat with integration is that ‘mainstreaming’ had not been supported by innovations or changes in the curriculum and learning-teaching strategies (UNESCO, 2005). Integration’s major concern has been how to join in the mainstream and become like others (Florian, 1998). Hence, one of the main barriers to the implementation of inclusive education has been the lack of pedagogical change in schools (UNESCO, 2005).

Thereby, the concept of inclusion has evolved. According to UNESCO (2005), inclusion concerns a deeper definition; it is about renovating schools in a way that assures access and quality education for all learners. This is what Montessori intended to implement with her method after realizing the potential that every child has, in spite of their different needs. The 'Education for All' movement, stimulated by Jomtien Declaration, adopts this broad vision of inclusion by addressing the needs of all learners, placing the student at the centre the teaching-learning process based on valuing their differences (UNESCO, 2005). It aims to provide optimal opportunities for every pupil concerning their learning experience and motivation (UNESCO, 2005).

In short, there are clear steps from exclusion to inclusion. First, from complete exclusion/segregation to integration/Special Needs Education, and finally, to Inclusion in Education/Education for All (UNESCO, 2005). However, to implement inclusion as such, several and significant changes in school systems are necessary (UNESCO, 2005).

### 3.2 Definition

UNESCO (2005) considers inclusion as “a dynamic approach of responding positively to pupil diversity and of seeing individual differences not as problems, but as opportunities for enriching learning”.

UNESCO (2005) identifies four key elements in the conceptualisation of inclusion:

- *Inclusion is a process.* It is a never-ending learning process about new ways to respond to diversity, about how to live with difference and how to learn from it.
- *Inclusion relates to the identification and removal of barriers.* It involves improvements in policy and practice, and to this end, collecting and using evidence and information of various kinds.
- *Inclusion refers to the presence, participation, and achievement of all students.* This refers to where children are educated and their attendance, the quality of their learning experiences, and their learning outcomes.
- *Inclusion implicates a particular emphasis on those groups of learners who might be at risk of exclusion, marginalization or underachievement.* That is to say, the responsibility of a proper and careful monitoring of those groups that are statistically more at risk, thus, ensuring their presence, participation, and achievement.

On the other hand, according to Centre for Studies on Inclusive Education [CSIE] (2020), inclusive education implies: valuing all students and staff equally; increasing students' participation, and reducing their exclusion from the cultures, curricula and communities of the school; restructuring the practices, policies, and cultures in schools so that they respond to the students' diversity; reducing any barriers to learning and participation; viewing the pupils' differences as resources to support learning; improving schools for students, but also for the staff; and, acknowledging the role of schools in developing values, building community, and increasing achievement.

Therefore, it can be said that inclusion is about welcoming diversity, benefiting all learners, not only targeting the excluded, and providing equal access to education (UNESCO, 2005). Thus, inclusive education refers to a philosophy of education that fosters the education of all students in mainstream schools (Florian, 1998).

The move towards inclusion is a complex movement that requires a clear philosophy. Thus, for an effective implementation, a set of inclusive principles along with practical ideas are necessary (UNESCO, 2005).

The Centre for Studies of Inclusive Education proposed these philosophy's principles (CSIE, 1996 as cited by Florian, 1998):

- All children have the right to learn and play together,
- No child should be discriminated against by being excluded because of their disability or learning difficulty,
- There are no legitimate reasons to segregate children during their schooling. They belong and need to be together.

### **3.3 Pillars**

Concerning more practical ideas, Echeita (2017) expresses that for education to be inclusive, three major tasks are crucial:

- First, accessibility or presence: to welcome all students, regardless of their educational needs.
- Second, participation: to foster everyone's active participation, to make everyone feel recognized loved and appreciated by their peers and teachers.

- And thirdly, learning-teaching process: to develop strategies, ways of teaching, evaluation and organization that enable quality learning of every student.

Therefore, three key pillars of a realistic inclusive education are pointed out: presence, participation, and learning (Echeita, 2017; Echeita et al., 2019; Fernández-Blázquez et al., 2022). That is, for education to be inclusive, the rights of the students to be allowed to be present, participate and learn must be respected. However, to reduce barriers to these important factors that enable inclusion, and thus, foster the development of inclusion, a deep transformation of cultures, policies and practices of the school is essential (Echeita, 2019; CSIE, 2020).

According to Fernández-Blázquez et al. (2022), the scholar culture refers to the values, beliefs, and principles that are shared in a school by its community; the policies of the school involve the planning of their resources, rules, procedures, and actions, for example, the student admissions policy or the policy of participation of the educational community; and finally, the practices concern the actions that are daily implemented in the school, they are the way to accomplish the values of the school culture, and to this end, they need policies to support them. For this reason, what finally matters are the practices that are carried out (Fernández-Blázquez et al., 2022).

There might be several barriers that impede an inclusive practice in education, which can be related to the policies, values or the practices itself of the school (Fernández-Blázquez et al., 2022). Thus, the school has two critical tasks (Echeita, 2017):

- First, identifying and recognizing these barriers, which exist in their culture, policies and practices, that are affecting the presence, participation, and learning of the students.
- And secondly, transform such barriers in enablers of an educational action that is more inclusive aiming to personalize its teaching by adapting to the student diversity and responding equitably to their educational needs.

Considering the complexity of this process of development of inclusion, Fernández-Blázquez et al. (2022) identify some main conditions to implement a more inclusive education in schools: reflexion, the use of evidence, collaboration, and the willingness to seek information, support, and guidance.

First, reflexion, which refers to the openness to dialogue and reflexion that makes change possible by analysing the values, principles, goals and reasons that are guiding the educational action (Fernández-Blázquez et al., 2022). Second, the use of evidence for making decisions; this is crucial so that the changes are not supported only by intuition, but also by what is happening in real daily life (Fernández-Blázquez et al., 2022). Thirdly, collaboration within and between schools, which is a key strategy to enhance learning and teamwork that may facilitate the process of inclusion. Finally, the willingness to seek information, support, and guidance when needed makes the challenge easier to meet (Fernández-Blázquez et al., 2022).

Hence, these guidelines can serve not only as practical guidelines for developing inclusion, but also as a reference to evaluate and analyse practices and aspects of inclusive education that can be acting either as barriers or supports to its development (Fernández-Blázquez et al., 2022).

Fernández-Blázquez et al. (2022) have used these guidelines to develop the ‘Thermometer for Inclusion’, a tool that aims to contribute to the collective reflexion in educational communities about their current situation regarding development of inclusive education. Therefore, the present study bases its methodology on this instrument.

### 3.3.1 Accessibility

This term refers to the quality or characteristic of something that makes it possible to approach, enter or use it (Cambridge Dictionary, n.d.). Thus, it is important to analyse how this aspect is implemented in a learning environment that aims at inclusion.

According to this definition, accessibility is closely linked to presence. Fernández-Blázquez et al. (2022) pointed out that inclusive education is built from the premise that every student has the right to attend school and, therefore, schools shouldn’t have any barriers that impeded the access to them.

### 3.3.2 Participation

Fernández-Blázquez et al. (2022) explains that the presence of the students is not enough, it does not guarantee inclusion in education. According to Skidmore (2004) and Booth (1996), the purpose of inclusion is to increase each student’s pedagogical and social participation while minimizing exclusion. Thus, this dimension encompasses the social relationships taken

place in the school community, the social well-being, and if the students voice is heard (Fernández-Blázquez et al., 2022).

For a school environment to be inclusive, it is essential that their students are not only present, but they also share spaces, activities, and school work with their peers whether they have special needs or not (Fernández-Blázquez et al., 2022). In this way, they have the opportunity to establish stable and healthy friendships where they feel loved and cared by their school community (Fernández-Blázquez et al., 2022).

Black-Hawkins (2010) intends to provide a meticulous appreciation of the concept of participation through some principles:

1. **“Participation impacts upon all members of a school and all aspects of school life”** (Black-Hawkins, 2010). This principle emphasizes the importance that participation has for everyone, in this case, for every student without any distinction or segregation which tends to occur when using terms as Special Education Needs (Black-Hawkins, 2010). Also, this participation involves all aspects of school life which means that participation goes beyond the class or teaching-learning processes; according to Black-Hawkins (2010), participation needs to be considered in all daily interactions that occur in an educational community.
2. **“Participation is a never-ending process, closely connected to barriers to participation”** (Black-Hawkins, 2010). By increasing participation, barriers to participation are reduced and vice versa; therefore, participation and barriers to participation are closely connected (Black-Hawkins, 2010). These processes can be ambiguous and complex to identify; some activities may increase participation for some students, but reinforce barriers to participation for others (Black-Hawkins, 2010). Therefore, careful analysis of this is crucial. Black-Hawkins (2010) points out that, for this reason, reaching a fully participation institution is difficult, however, it is a goal worth pursuing.
3. **“Participation is concerned with responses to diversity”** (Black-Hawkins, 2010). Participation involves recognizing and valuing diversity by providing diverse learning opportunities and experiences equitably to the different learners in class (Black-Hawkins, 2010). Therefore, participation implicates responses to the many forms of diversity that are present in a school (Black-Hawkins, 2010).

4. **“Participation is distanced conceptually from notions of special educational needs”** (Black-Hawkins, 2010). According to Black-Hawkins (2010), participation is a holistic concept that involves everyone in the school community. The use of terms such as Special Education Needs or learning difficulties have often caused more segregation than inclusion, thus, Black-Hawkins (2010) stresses the importance of fostering participation of everyone in the school: students and even the staff; recognizing that participation recognizes the many forms of diversity present in the school.
5. **“Participation requires opportunities for learning to be active and collaborative for all”** (Black-Hawkins, 2010). Genuine processes of learning involve participation by learners; therefore, Black-Hawkins (2010) highlights the need of active involvement and participation in school environments so that students can learn in active and collaborative ways.
6. **“Participation necessitates the active right of members to join in”** (Black-Hawkins, 2010). In a participatory environment, everyone has the right to join in the activities of the classroom (Black-Hawkins, 2010). However, rights also come with responsibilities; participation is enhanced when learning can occur alongside and with others equitably and respectfully (Black-Hawkins, 2010).
7. **“Participation is based on relationships of mutual recognition and acceptance”** (Black-Hawkins, 2010). That is, participation cannot be built if there is no mutual acceptance and recognition between the members of a community (Black-Hawkins, 2010). For participation to be properly enacted, a careful balance between freedom and equality must be maintained (Black-Hawkins, 2010).

### 3.3.3 Learning and Teaching Process

An inclusive education enables their teachers to revise and change, if necessary, their strategies, methods or ways of teaching and evaluating so that all students learn the necessary contents to develop the competences that have been established in the curriculum, with no one left behind or having less expectations towards the achievement of some, and facilitating that each one progress according their potentialities (Fernández-Blázquez et al., 2022).

Phillipson (2007) states that since the school is where students’ learning takes place, here lies a great deal of diversity. Indeed, according to UNESCO (1994), every student has unique

traits, interests, capacities and learning needs, this leads to a wide diversity of characteristics and needs that need to be taken into account when designing the educational system and implementing educational programs. Hence, in order to provide equitable learning opportunities for all students, as stated by Rojo-Ramos et al. (2022), individualized educational attention is crucial.

## 4 Montessori pedagogical method

The Montessori Method is a theoretical-practical construct of educational action on children from three to six years old (Montessori, 1928). However, after a few years of working with them, she also developed her method for older children. According to Montessori (1909), her method basically gathers the results of her pedagogical experience which seeks to open a new path to rebuild pedagogy. Montessori (1909) aimed to develop a scientific pedagogy, and, to do so, she stressed the importance of looking for new paths different from those followed to date.

Montessori (1909, 1949) criticized the old traditional methods implemented in education; she describes how these have built an education that has become a world apart where social problems are basically ignored. Regarding this, she expressed: "... the world of education is a sort of retreat where the individuals, for the whole of their scholastic life, remain isolated from the problems of the world. They prepare themselves for life by remaining outside of life" (Montessori, 1949). Thus, one of their main objectives was to develop a new method for education where life is at the centre of its own function, that is, an education that is a help and support for life from the beginning; an education where the child, the learner, is the main character of their own learning (Montessori, 1928, 1949).

According to Montessori (1928), there is often so much talk about education (its methods, systems, etc.) that the child disappears almost completely underneath it all. Hence, her concept of education involves the child as the protagonist who and whose needs must be carefully observed to be able to meet them providing the right and appropriate support for the children's full development (Montessori, 1928). From here, it is already evident the genuinely inclusive approach of Dr. Montessori, who seeks the inclusion of children as the protagonists of their own learning process and also their inclusion to society through education.

Moreover, Montessori Pedagogy stems from the idea of considering the needs of those children with learning difficulties who tend to be excluded from the regular school (Montero, 2023). Her method and all her pedagogical work started with them.

Indeed, the Montessori Method has its origins in a clear intention of making education more inclusive. This is evident not only in the history of how all her method emerged, but also in its main goal of providing children with what each one needs so that they can achieve their full potential and development by themselves (Montessori, 1928). In other words, Montessori

aims to provide an individualized education for children fostering their independence, freedom, and development (Montessori, 1928, 1949).

In addition, Montessori pedagogy emerged in a context where inclusive education was barely approached; it started a long time before the UN Declarations and conventions have addressed inclusive education (UNESCO, 2005). The first 'Case dei Bambini', as she called her nursery schools, was opened in 1907; however, her studies, and all her work with children, who were segregated from schools at that time, had started a few years earlier, since 1899 with the school that was placed under her direction (Montessori, 1928; Standing, 1957).

While developing her work in this school with children with diverse Special Educational Needs (SEN), she realized that her method could be expanded also to children in regular schools (Montessori, 1928, Standing, 1957). Thus, the first school in 1907 was opened, and then, due to its pedagogical impact, in 1909 she published her first book.

Montessori Pedagogy is characterized by three essential pillars: the child, the environment, and the adult/guide.

#### **4.1 Role of the Child**

Montessori (1949) highlights the role of the child or learner as the main character of their learning process. The child has a different mind than the adult; according to Montessori (1949), the child, during their early years, has an absorbent mind, which provides them with an intense sensibility to everything around them. It characterizes their learning in a very different way than during other development stages. Montessori (1909, 1949) describes how fluent is the learning process of the children from 0 to 6 years old, the child is capable of absorb all the impressions and knowledge they receive from the environment. Montessori (1909, 1949) exemplifies this with the process of language learning. During the early years, learners can basically absorb the language of their environment, it is not a difficult process for them and they don't receive teaching or traditional lessons for this, it is all their own capability (Montessori, 1949). Thus, Dr. Montessori tries to identify these many different capabilities of the children and enhance them by observing and preparing environments to this end.

Through many careful observations, Montessori (1949) found that children have a stunning learning capability that can actually be hindered in traditional classrooms where teachers have the leading role and seek to transmit all their knowledge to the students in a manner already

pre-established in curricula or educational programs. Hence, Montessori (1949) places the child in a primary role during learning and designed environments accordingly.

Montessori (1909) states that the absorbent mind works naturally and effortlessly, and it is non-selective, that is, it cannot discriminate which elements it takes from the environment, it will absorb both the positive and the negative. Therefore, it is crucial to prepare a proper environment that meet the child's needs (Hermida, 2023).

## **4.2 Role of the Environment**

Children's capabilities are essential in learning and development process; however, Montessori (1949) points out that the learner's intelligence doesn't develop by only living, it needs an environment that offers purposeful activities. From 3 to 6 years old, the child needs a space that offers the opportunity to move freely and allows to engage in constructive and intelligent activities that will lead to independence (Montessori, 1909, 1949).

For this developmental stage, Montessori (1909) designed five areas that are present in these environments: Practical Life, Sensorial, Language, Math and Cultural. Each of them has its own learning purposes and has a space in the environment. Practical Life aims to develop practical skills that are useful in daily life; Sensorial seeks to develop cognitive skills through the refining of senses; Language is designed to foster language, reading and writing skills through activities that meet the needs of their absorbent mind, thus, making this process interesting and effortlessly; Math aims to help students to learn mathematical concepts by the manipulation of concrete materials; and Cultural seeks to foster learning about the different aspects of the culture and nature in which the learner is immersed such as geography, biology, etc. (Montessori, 1909; Rodríguez, 2023a).

This environment needs to be physically and psychologically prepared. Physically, according to Rodríguez (2023a), the environment needs to be tiny and orderly, with materials that are adapted to the development stage and characteristics of the child; it should emphasize reality and nature by including plants and some animals if possible; it must be safe and allow free experimentation so that learners can move freely and comfortably while still learning.

Regarding psychological considerations, the environment should be a place where children's potentialities are recognized, where the control of error is implemented through the materials themselves in a very friendly but clearly way (Rodríguez, 2023a). Thus, independence and free choice is fostered, but there is also a structure that makes children feel safe and confident

where they can express themselves without feeling threatened (Rodríguez, 2023a). This environment must offer interesting activities that meet children's needs; there should be one material for each activity, in this way, patience and respect for others' turns is promoted (Rodríguez, 2023a). It should be also a place that, by gathering children from different ages, fosters community, that is: everyone learns from each other, admires the capability of others and collaborates for the well-being of the group (Montessori, 1949; Rodríguez, 2023a). Finally, it must be also a space that reflects the culture of where they are living (Rodríguez, 2023a); thus, they can actually be part of their society by understanding and learning from it.

### **4.3 Role of the Adult**

Although learners have their main role, teachers are not left out of the picture. Teachers have a crucial role in preparing the environments the children need and accompanying them during their learning process (Rodríguez, 2023b). They observe and prepare the activities their students need according to their developmental stages and learning processes. Thus, the teacher becomes a guide for learners, foster their independence and autonomy and intervene only when necessary, so that they don't hinder the autonomy, free choice, interest and independence the student gets during their learning (Montessori, 1909; Rodríguez, 2023b). To this end, observation is their main tool. Through observations, teachers can identify students' needs and interests and also evaluate their progress (Montessori, 1909; Rodríguez, 2023b).

Therefore, the role of the adult or teacher involves preparing the environment considering the developmental characteristics of the child; promoting autonomy; using the observation to meet learners' needs and avoid unnecessary interventions; generating activities to the children which have a learning purpose; and establishing tools for evaluating the process of the child such as reports, observation records, meetings with the family, etc. (Montessori, 1909; Rodríguez, 2023b).

## 5 Methodological Framework

This study takes a qualitative approach because it focuses on participants' experiences and interactions; and, also, on the perspectives of the participants, their daily practices, and their knowledge about the subject under study (Flick, 2018).

Considering that this is an in-depth study of a specific Montessori learning environment that seeks to analyze the features of a set of interactions and behavior patterns related to inclusion in education, the case study research design has been chosen (Hamel et al., 1993).

The research aims to describe how a Montessori learning environment works regarding educational inclusion. It explores the perspectives of the teachers of this environment, and complements the research with a careful observation of the daily interactions occurred. The participants of the study are the teachers and the students of a learning environment that gathers a group of 15 children from 3 to 6 years old in a Montessori school.

### 5.1.1 Data Collection

The methods used in this research are interviews and observations. The interviews are semi structured and were developed by the researcher relying on the three main dimensions proposed by Fernández-Blázquez et al. (2022). The interview aims to provide a deep analysis and understanding of the teachers' perspectives and experiences on this topic. It has 17 questions, and some of them may have a few sub-questions depending on the interviewee's answers.

Before interviewing the teachers, they were informed about the research, and how the interview was going to be conducted. They signed an informed consent which contained all this information (participant information sheet, privacy notice, and consent form). Afterwards, one of the interviews was performed via Zoom through the UTU account; and the other one was conducted via WhatsApp due to personal circumstances of one of the interviewees. Both interviews were recorded and transcribed by the researcher.

Observations were recorded in the form of a field diary which enabled openness to take notes of all the aspects related to the topic. It was carried out over 6 days with passive involvement by the researcher, so all the participants were aware of the observer's presence.

Before carrying out the observation, a consent form was signed by the school principal of the school. The observation does not record any personal data that could compromise the participants. It was held over six days with special attention to the period of time the students were in class. The notes were taken in a notebook to which only the researcher has access.

### 5.1.2 Data Analysis

The data analysis of both interviews and observations follows the Fernández-Blázquez et al. (2022)'s categorization for evaluating inclusive education. For interviews results, five categories were analyzed: values, conditions, accessibility/presence, participation and learning-teaching process. For observations, the three main categories: accessibility/presence, participation and learning-teaching process were analyzed. The latter are the three pillars for education to be inclusive and therefore, the three categories analyzed in both interviews and observations.

The dimension of *accessibility* will encompass the reflection about presence of the schoolchildren in the schools and about accessibility and technical assistance issues as Fernández-Blázquez et al. (2022) pointed out.

However, presence is not enough, inclusive education also aims to increase each student's pedagogical and social participation while minimizing exclusion (Booth, 1996; Skidmore, 2004). *Participation* is a broad category which addresses many aspects of daily interactions, thus, Black-Hawkins (2010)'s principles and theory about this theme are used to analyze the results.

Finally, *learning-teaching process* dimension addresses the ability to diversify, enrich, and offer several opportunities to the students to internalize what is teach (Fernández-Blázquez et al., 2022).

Due to the nature of the categories: *values* and *conditions*, these two were only analyzed in the interviews results. The first refer to the school culture: beliefs, values, and principles that are shared by the educational community; and the latter refers to what is necessary on the part of teachers in order to carry out inclusion (Fernández-Blázquez et al., 2022).

The data analysis process was performed by the researcher with tools such as Microsoft Word, and Excel. It considers the inclusive education's dimensions proposed by Fernández-Blázquez et al. (2022) and the Black-Hawkins (2010)'s theory to organize, describe, and

explain the categories selected. During this process, all the names and personal data was pseudonymized in a way any participant in this research can be identified.

## 6 Results

Montessori calls this school stage ‘Children’s House’ which embraces children from 3 to 6 years old (Montessori, 1909). In this school, there are three groups/classes of children in these ages. Only one of them was observed for this research.

### 6.1 Interviews

There are two teachers in charge of this Montessori environment. One is the *guide*, and the other one is the *assistant*, as they are called in Montessori pedagogy. The guide is the main teacher of the classroom, and the assistant helps the guide in different aspects of the class in which the guide may need support at any given moment. Both teachers were interviewed.

From the interviews, five categories emerged: *Values*; *Conditions*; *Accessibility*; *Participation*; and *Learning and Teaching Process*. These are the five dimensions that Fernández-Blázquez et al. (2022) use in their ‘Thermometer for Inclusion’ to evaluate inclusive education.

#### 6.1.1 Values.

Fernández-Blázquez et al. (2022) refers to this dimension as the shared values by the educational community which are necessary to the development of inclusive education. Four values emerged in the interviews: *Belonging*; *Welcoming of Diversity*; *Flexibility*; and *Conflict Resolution*.

##### 1. *Belonging.*

The first value that Fernández-Blázquez et al. (2022) highlights is the importance of everyone feeling good and happy to be part of the community. This is fostered by the teachers, but also by the nature of the Montessori environment itself.

So... me as a Montessori guide, what I have to provide them with are experiences that bring them closer to an adaptation... social..., emotional... environmental, and that... the important thing is that all children feel loved... valuable..., and... that... never feel alone in a school environment... and everything that is within our hand, well... we will do it. Always without falling into... wanting to... overprotect... the children..., but that they feel valid for themselves... and give them the tools so that they can get ahead on their own (Guide).

Thus, the teacher aims to prepare an environment where all the participants have the opportunity to feel part, to feel loved and valued by their classmates, teachers and the whole community.

However, there is also another aspect that fosters the sense of belonging. Given the nature of a Montessori environment where there are children of different ages and stages of development, it is visible the support that everyone receives in the group and how they take care of each other.

... in a Montessori environment as each one... goes at their own pace, each one does... has their presentations..., the materials you choose freely... no, children do not see... that there is any discrimination... from themselves to the rest of the boys or girls and, as we said, well... there can always be other children... that are at the same level in certain areas... Also, the fact that there are older, younger, well, they help each other in... because when one has already achieved... certain objectives, one can... help the one who is still going like a little step behind (Assistant).

Thus, everyone takes care of each other and a sense of belonging is built internally from within the environment.

... I don't know if being a small group of children... they are like a team all... they always play with others... Yes, there are days when... one wants to be alone or another one doesn't want to play with this one or the other, but... But in general, ... so far, I've always seen that everyone takes care of each other... the fact that there are old and young... they have those roles, like very... mm very internalized... (Assistant).

In short, there is a sense of belonging in the classroom that is fostered by both the teachers and the nature of the Montessori environment itself.

## *II. Welcoming of Diversity.*

Another value that Fernández-Blázquez et al. (2022) describe is the welcoming of schoolchildren and their families' diversity to the school, respecting and valuing it. It is evident that this value comes from the teachers, but also from the pedagogy itself.

Regarding this, the guide expressed:

We start from the fact that each child is different, each child, regardless of whether he is diagnosed with something or has... a difficulty added by some personal characteristic... each child is different, so... all the materials... can... and all the presentations, can be adapted to the characteristics of each child (Guide).

For making everyone feel welcome is important not to label them or making distinctions between them. Valuing diversity also implies to embrace difference without grouping some children as ‘special’: “So... these children who... quote, unquote... have special needs or different from others; we consider that these are just traits... that they can be met... perfectly and they themselves are self-regulating...” (Guide). In this way, what is known in traditional schools as ‘Special Educational Needs’, in this environment, for the teachers, this is just another difference that can be and is included as any other difference from the students.

However, as mentioned above, this value comes not only from the teachers, but also from the pedagogy itself:

I believe that education... Montessori... contributes to children with special educational needs... As for the fact that... it doesn't pressure them, it doesn't require them to reach a certain level at a certain age... it doesn't label them... above all, it doesn't score them... it can cause anxiety in children... well, the Montessori method follows the pace of each child... instead of the child having to follow us or... what is stipulated that they have to learn, well... we follow each one of them... without numbering them, without labeling them, without pressuring them (Assistant).

It can be said that Montessori Pedagogy has fostered this value in the teachers:

It has helped me to address diversity... in terms of that Montessori works... from general aspects, the individuality of each person... So... for me, diversity is in everyone... So... yes... It has helped me a little... not to fall into the social norm of all we have to reach the same goal in the same way... (Guide).

Thus, in this Montessori environment, diversity is seen as just another characteristic of social and daily interactions that is embraced. Thus, an inclusive environment is fostered and, indeed, it is aligned with UNESCO (2005)’s guidelines, who stated that inclusion is about welcoming diversity and benefiting all learners.

### *III. Teachers' Flexibility.*

To ensure that none of the students are left behind or feel lost is another value considered by Fernández-Blázquez et al. (2022).

The interviewed teachers recognize that, during children’s development, there are common characteristics that everyone, or most of them, shows, however, they are conscious of the individual differences that are also present such as learning pace. This awareness makes them

capable of adapting their practices and strategies to these differences so that no one is left behind.

The characteristics within the development of children are... common, but then each child has his or her own peculiarity... You will develop at your own pace and I will develop... at my pace. So, we respect... we follow the child, not the child follows us (Guide).

In this way, as the guide mentioned, no one is left behind in the environment and the teaching and learning practices adapt to the students' needs: "...each child is different, so... all the materials... can... and all the presentations, can be adapted to the characteristics of each child" (Guide).

For this, teachers play a crucial role for inclusion to be implemented, fostered, and maintained: "... the guides... for me, that's the most... the greatest instrument of inclusion in the world..." (Guide, 2025).

#### *IV. Conflict Resolution.*

Fernández-Blázquez et al. (2022) also identify dialogue, listening, and agreed conflict resolution as a general norm and value that helps an education to be inclusive.

The main factor that stands out for this is the positive discipline that is immersed in the daily interactions and interventions of the community: "...the positive discipline we work on... in our institution... that helps to understand the position of the other... to empathize with them..." (Assistant).

#### 6.1.2 Conditions

According to Fernández-Blázquez et al. (2022), there are four main conditions for initiating and sustaining the process of transformation towards a more inclusive education: reflection; use of evidence; collaboration; and willingness to seek training, support and advice.

##### *1. Reflection*

This refers to the teachers' willingness to regularly analyze and reflect on their teaching and educational practices (Fernández-Blázquez, et al., 2022). Reflecting on teaching practices enable teachers to change their strategies, if necessary, depending on the specific situation they are living (Fernández-Blázquez, et al., 2022).

The main teacher in charge of this environment showed this ability when reflecting about how she would address an inclusive strategy in the hypothetical case of a new child with different physical needs becoming part of the environment at issue:

Maybe I can take... the Pink Tower, and, okay, you have two presentations that are formal, but... if it were necessary to provide the child, maybe a child, imagine that he can't use his arms, for example, well... we would make it easier for him, we would do it in a... way with the spider grip... as we call it... of the pieces, we would show him, and we would leave the decision-making capacity to him to place (it)... that is, we would be his hands, but the child would make the decision. So... the Control of Error, for example, in the Pink Tower is in the child's own vision... the Tower... maintains a sequence from major to minor and if the child perceives that this is not right... that it does not have that sequence... in the pieces, well, then we say: "Would we change any?" and then, the child can tell us... (Guide).

In this way, the guide reflects about new ways of adapting the classroom so that "... any person can benefit from the Montessori method... whether children within... what we call normality or children with special need..." (Guide). According to the guide, the way to achieve this is through "the preparation of the environment, in an individualized way" (Guide), which is, indeed, linked to the last category about *learning and teaching process*.

Thus, the latter clearly requires from the guides a reflection process, as the one described above, for the adaptation of each child as they consider each one is different and follow up on each one: "We start from the fact that each child is different..." (Guide).

...each little one has their own individualized process. That's why there is a follow-up, some records... of each of the areas... there are all the materials of each of the areas with the name of each child... (Guide)

That is, the teacher implements new ways of the Montessori activities present in the environment while keeping its learning purpose and adapting them to the children's needs. These constant observation and reflections they do of each student learning process leads to an adapted, prepared and personalized environment to the students' needs: "Well... everything... we adapt it when necessary... to each child" (Assistant).

## II. Use of evidence

Reflection comes along with evidence (Fernández-Blázquez et al., 2022). For reflections and decisions, regarding educational changes or practices, to lead to greater levels of inclusion, they must be based on contrastable evidences (Fernández-Blázquez et al., 2022).

It seems that the Montessori training that the teachers have received has not given them any specific tools to address inclusion: “I would say that the Montessori training itself... it's not that... has given me any guidelines on how to approach... these situations... is not that it has given me any... knowledge to address these situations” (Assistant).

However, during the interview, the guide mentioned how the Montessori method itself is based on evidence and how it actually started addressing those *special needs* of the excluded students at that time:

- Montessori began to respond to the needs of a group of children with special needs (Guide).
- Well, then, from there, all the studies that... Montessori proposed... the development of materials; all of her... observations resulted in... children's learning as a construction from within them... and by themselves, not imposed by the outside... (Guide).
- And let's not forget that this was a method created for... children with special needs... where they had no... incentive... or any... they had nothing, that is, they... were children who were locked up... with a bed and with... no human contact, more than other children in the same circumstances... (Guide).

As mentioned above in this paper, Montessori Method worked with the segregated students from the very beginning, and the interviewee is aware of it. Thus, it seems that the teachers have not received specific extra knowledge about inclusion. However, the method itself seems to be inclusive: “so, yes... well, for me... inclusion is... the basis of the development of the method” (Guide); and this method is daily used in these educational settings.

Regarding this, the assistant mentioned:

... it has given me the ease... the day to day working in a Montessori school... well, the ease of being able... to personalize, so to speak, the learning of each child... since in a traditional school, well... as we say, it is more complicated. Everyone does the same thing all the time, and to the little ones with some difficulty, well, like... they put an extra person, who must be with them all the time, like... so to speak, the special one. On the other hand, in Montessori, well... it's like... each one goes at their own pace... whether they have any special needs or not (Assistant).

Hence, the evidence and theory that Montessori developed in her Pedagogy became the main tool of evidence for teachers to implement inclusive strategies in their daily practices.

### *III. Collaboration.*

Strengthening collaboration within the school community is an essential strategy to any process towards educational inclusion (Fernández-Blázquez et al., 2022). Collaboration takes many forms: among teachers, with other professionals, with the families, etc. (Ainscow et al., 2013).

In this environment, one of the main collaborations that stands out is the one among teachers and family:

... today... any aspect with... a special need for learning... is approached in a very natural way with the parents. The first thing is... well... you will have a talk with the parents, be very much in agreement with the needs of the child, know the routines that the little one has at home, also be able to adapt the school routines, that they also do them in the home environment (Guide).

The guide gave an example of how this collaboration with the family is implemented when a specific need emerges:

... he was a little boy who was very invasive. It's not that he hit, but he was lying on top of someone all day... If he sat next to someone, then he would throw himself on top of him, because at home they were very used to kissing, hugging, being very close and such, well, he was like that... And... of course, the other children didn't want to sit next to him... because he invaded them. So, we had to do some work with the family... and with the little one... about respect personal... boundaries... so that... the little one would feel... included, and the others would want to be with him... (Guide).

Other types of collaborations were also described. In the environment, collaboration between guide and assistant, and also between the teachers and school team such as educational coordinator is evident. First, guide and assistant work together, and then, they get support from the educational coordinator of the school as well:

Well, when we detect that there is some learning difficulty in some little one... or... something that catches our attention... Well, first, we meet between guide and assistant, we comment on it... we talk about it with... the educational coordinator of the school and the management team... and well... we reschedule those presentations according to... the interest of the child, the needs, the level... we do it in an internal... way between guide and assistant, especially the guide, and... then... the management team keeps track of that little one (Assistant).

Thus, the teachers are not alone and they can always support each other and look for a solution together. This, makes inclusive education easier to implement.

Well... having the education coordinator and... direction... with psychological team... that adapts a follow-up of each child we see that has difficulty... the fact of being guide and assistant in each environment, which allows us to share... everything that alerts us a little and look for a solution between the two (Assistant).

In this way, teachers clearly work in collaboration towards a more inclusive education.

#### *IV. Willingness to seek training, support and advice.*

This attitude is crucial when something needs to be improved; it allows to gain more confidence and capacity to face the dilemmas and challenges that all educational teams encounter in their implementation (Fernández-Blázquez et al., 2022).

Although the teacher of this classroom has had no additional training on diversity or educational inclusion issues, she is interested in each individual case, and seeks for more information either in an internal and self-training manner or in a more external way with the support of others.

The guide mentioned that her previous experiences, and the seeking of advice through readings has been an important tool in this process:

... well, knowledge... always accompanies being able to exercise better..., that is, knowledge is power... and yes... readings that I have been able to do on my own... the experience of working with children, with families... I think that, that it trains you a lot... (Guide).

However, she not only implements a self-learning process but also seeks support, and advice from external resources, for example, with some colleges to better address the case:

...I haven't had it at the moment... the need... yes, yes, yes, I have been interested... in the case of *Victor*... he did have, it was a clear case of autism... I was reading a lot of things about how to get closer to him... I contacted a friend of mine, who is a therapeutic pedagogy, to find out what... I could do more with him in the environment... I talked a lot with the mother... I had meetings with... his educational psychologist, that he was going to an educational psychologist... once a week... I had meetings with her... you become interested in the particular case, because it is true that it needs... aspects... that others... won't need... but... let's say that you learn a little about... what you have experienced. That has been my experience (Guide).

The assistant also showed her willingness to seek more information and training when it is needed. She also seeks support from external resources:

Well... when you... run into that difficulty, well... you investigate, search... in what way, to be able to help them, well, whether it's both... in meetings with the management team, mmm, psychologists... internet... doing small courses that you are looking for on certain special needs... (Assistant).

Hence, teachers are willing to keep learning, gain more knowledge and seek support when needed to work for a more inclusive environment.

### 6.1.3 Accessibility

Accessibility is the quality or characteristic of something that makes it possible to approach, enter or use it (Cambridge Dictionary, n.d.).

#### *1. Accessible physical environment.*

The fact that everything in the environment not only aims to embrace the particularities and differences of the individuals by giving all of them the opportunity of learning, but also aims to be within the children's reach, makes it physically accessible for them:

- For me, Montessori was a discovery.... Because it works the individuality a lot. What Montessori has helped me to keep in mind is the need for prepared environments... an environment that is within their reach... (Guide).

In this way, an environment for all is fostered, as the guide expressed:

- ... the important thing is to have the environment prepared for the people who live in the environment... for all... (Guide).
- ...Montessori environment is dynamic... and... enriching for all (Guide).

For example, the presence of some children needs some changes in the environment so that they can access to it and not be excluded, the guide mentions how important this is and how she implements it in her environment:

... we're talking about a child who didn't, who the only thing he did out of place like that was throwing things out of the window. So, having the precaution of having the windows, certain windows, to which he arrived... closed... and we put a net on some of them to be able to keep them open... the hot months and so that

he could not throw things... because of course, other children were passing by (Guide).

Thus, when accessibility is being hindered, teachers identify it and make the necessary changes to make the environment accessible for all. In this way, no one is excluded.

## *II. Accessible Communication*

Teachers' attitude towards diversity makes the environment and the communication in it accessible and even friendly for all the students despite their social or cultural differences:

Children always find a way to make themselves understood, in one way or another. At least in the experience I've had with the... kids who have entered with only one language... they develop gestures a lot... and the paralinguistic language... and the look says a lot, and between them, because if they need to say something to each other, we are calm that they will get it, they will be able to communicate... (Guide).

Thus, teachers' flexibility to other ways of communication and patience and confidence in their students' abilities makes communication in the classroom truly accessible to everyone.

- But we... try them to connect with each activity that we are doing, that they have to do... and can participate, either with the help of the classmates, (or) with our support (Assistant).

In this way, teachers also foster peer support to make the environment more accessible which aligns to one of the observations as well.

Moreover, in terms of accessibility, presence of diversity is an important indicator. If there is difference and diversity in a classroom, it reflects that there is access to them. Fernández-Blázquez et al. (2022) also highlight the reflection about presence as an aspect to consider in this dimension.

Presence of diversity in class can be seen from different perspectives. Differences and diversity can be analyzed from a learning perspective (what is usually known as special education needs or learning difficulties), it can also be reflected upon from a social and cultural perspective (children from different countries with even different languages), and also from a developmental perspective (children that are in a different development stage and/or different ages).

### III. Learning Diversity Presence

The guide explained that at this age, children don't have an official diagnosis for special needs: "... until they are about 7 years old... children are not diagnosed. So, of course, I work from 0 to 6... we work without a diagnosis... that is, (that) they have assured us..." (Guide). However, they have had, both in previous years and now, some children in class who may be identified as students with special education needs, for example, autism:

- ... But, of course, it is true that there are children who... well, it is very obvious, right? So... well, autism, for example, we did have a child with a grade 6 of autism for a year in class (Guide).
- ...well, we had in the environment a little one... who had autism... and mmm we had him at 4 and 5 years old. He was there for two years... (Assistant).

Apart from autism, the environment has also received children with other needs such as maturation delay, attention difficulties, hyperactivity:

- ... some to be diagnosed, but that... has also presented difficulties... of learning... some maturation delay too... (Assistant).
- This year... a little one has come in... who has a super dispersed attention and, of course, he is not diagnosed or anything like this (Guide).
- Yes... autism, ASD and ADHD... hyperactivity... (Assistant).
- ... we have had, well... some autistic traits... of different... level within the spectrum, then we have also had... children who pointed to have a hyperactivity and an attention deficit. Then, on a physical level, we have not had children who have had a need to adapt to the environment due to physical impediments (Guide).

The fact that there are no students with physical impediments can be an aspect for further investigation. However, it doesn't seem to be a rejection or exclusion on the part of the teachers because, as it was previously described, in the sub-category of *reflection*, the guide herself reflects about a hypothetical case of children with physical difficulties in the classroom and its way of integrating them.

#### IV. *Social/Cultural Diversity Presence.*

However, the presence of diversity in the classroom is not only related to special needs, but also, to social and cultural issues such as nationality, language, which was also found in the observations.

- In addition, it has been a little one who has come... from Russia and then... well, there have been many changes for the child (Guide).
- We also have the case of children who do not have the language. That is, well, children who have entered only speaking Russian... or even..., for example, Russian... in my environment there are four... but Icelanders there is one... (Guide).

Thus, it is evident that in the environment there is diversity regarding nationalities, cultures, and languages. Some of them have no way to communicate through language upon entering the environment.

- ... we have... many children with... difficulty with language... most of them are foreigners, there are many who arrive without English, without Spanish... (Assistant).

However, cultural differences imply more than only language. Different nationalities in a classroom involve different traditions, different places, etc. Thus, in this case, teachers tried to make the environment more accessible even to cultural differences:

... for example... we had a little one... who came from another country, she did not speak our language... we had no way, nor did she have a way to communicate with the classmates... she didn't share either... some traditions... so, sometimes we noticed that she was a little more out of place... and what we thought was to create... a project, creating materials... about the country of that little one... with... the flag, the map... drawings of places... words in that language... and so that she could see a little, so to speak, from home... in this new school (Assistant).

Hence, there is diversity regarding social and cultural aspects. There are students with different languages, nationalities and cultures and this is not an impediment for them to join the classroom.

#### V. *Developmental Diversity Presence*

There is also diversity regarding age and, therefore, stages of development:

- Every child is in a different moment... For example, in my class... well, there is... a group... that are 3 years old, another that are four years old and another that are 5 that are going to turn 6... (Guide).

Thus, this is a classroom where children from 3 to 6 years old, with their developmental differences, work together in the same environment. In this context, the guide seeks to promote learning in all of them:

- For me, it has been like giving, in Montessori, giving a learning opportunity to any person, to any developing being, well, to any developing human (Guide).

Hence, this environment has proved to be accessible to students who differ in learning, development and culture.

#### 6.1.4 Participation

However, presence is not enough. For a real inclusion in educational settings, participation of all students in their environment is crucial. The guide explains how she fosters this while maintaining a harmonious environment. This category is classified in five sub categories based on the Black-Hawkins (2010)'s theory:

1. *Participation involves all the members of a school or class (Black-Hawkins, 2010).*

The teachers explain that they consider everyone when planning an activity, and try to foster each one's participation so that everyone can participate:

- I think everyone can participate in everything (Guide).
- ... we always schedule activity taking into account all the little ones we have in the environment (Assistant).

The support for participation that the teachers promote in their classroom can come from them, as teachers, or from the peers:

... we have always tried to find a way for them to be part of everything we do..., there are times, then, that they are more dispersed or... less participatory... But we... try them to connect with each activity that we are doing, that they have to do... and can participate, either with the help of the classmates, (or) with our support (Assistant).

For example, teachers may offer their support when someone is struggling with talking and participating in a conversation:

With the little one, for example, who had autism... well... the fact that he doesn't talk, for example... if everyone is participating and telling something, well... talk a little bit for them, if, you suppose, they are talking about their weekend... Instead of saying: "What did you do this weekend?", well, that is, "this weekend..., you had a great time, didn't you?... I think you've gone... to the park to play with friends..."... well, that, to each little one, well... according to... their need, look for... how to guide them (Assistant).

The teacher tries to use simpler questions or guide a little bit more to those students who need it. In this way, participation of everyone is not only allowed but also fostered which is strongly linked to the next principle:

II. *"Participation necessitates the active right of members to join in"* (Black-Hawkins, 2010).

The fact that teachers consider everyone when planning an activity reflects that every student is taken into account. This not only makes the environment more accessible but also makes participation for everyone easier:

- ... we always schedule activity taking into account all the little ones we have in the environment (Assistant),

Indeed, teachers support and foster their participation in every activity in the classroom:

- ... we have always tried to find a way for them to be part of everything we do... (Assistant)

It shows that every student in the classroom has the active right to join in the activities held in the environment: "I think everyone can participate in everything" (Guide).

However, along with rights also come responsibilities, for example, the guide mentioned that: "...they cannot... start something else until the previous one is finished and finishing the previous one is to pick it up and leave it ready for another child to pick up". That is, they have the right to participate in any activity, but also the responsibility to finish it, tidy up and leave it ready for the next child. This not only helps to maintain a harmonious and organized ambiance but also to build an environment where everyone can actually participate.

In this way, as the guide mentioned: "...having only one material of each (activity) for everyone, children learn a lot..., well, from patience to respect to waiting their turn to complete work cycles".

*III. "Participation is concerned with responses to diversity" (Black-Hawkins, 2010).*

Both teachers mentioned the different strategies implemented in class to respond to the diverse needs that emerge in class. This diversity can be related to learning, psychological, cultural, and developmental issues. One case, for example, is related with a child who presented attention difficulties. He has been in the environment for around three months, teachers identified his needs and interests and help them to stabilize his attention:

Now, we see that he has made a tremendous change... Since Christmas until now, he has made tremendous progress both socially, socializing... approaching others because before he did not know how to approach, he directly hit... or destroyed the work of the person next to him or threw the material, approached a tray and threw it, things like that. Until, well, we discovered that working with water grounded this child a lot. And then, of course, we prepare some trays for him, which we vary weekly with work that has water... and this stabilizes him a lot (Guide).

According to the dates indicated by the guide, this student was present after the observations were made. However, it is information that is valuable for this study.

There have been also students with cultural differences. One frequent issue in the environment is language diversity. In these cases, teachers use a Montessori strategy known as *Three Period Lesson*, where vocabulary of the language spoken in their place is teach:

... well, we know that it is a matter of time and we can help them, presenting them Three Period Lesson with vocabulary, with miniatures... or elements of the environment or school or aspects of the person... And then, little by little they are learning... (Guide).

Group activities may be the most difficult period for everyone to participate because, since they have different ages and, thus, are in different developmental stages, the differences sometimes can stand out. However, teachers try to find a way so that the group activities are still inclusive and able for all the students to participate:

... then, in the afternoons we do... more group activities... Well... everything... we adapt it when necessary... to each child, for example, if we have to do some kind of manual activity, a craft... that involves cutting out, well... the little ones who... don't cut... they are given a punch and the partner helps them or we look for the solution that they prefer... (Assistant).

Therefore, teachers are aware of the diversity of their students and respond to it with different strategies so that the environment and the activities are adapted to the students they have in their classroom.

IV. *“Participation is based on relationships of mutual recognition and acceptance” (Black-Hawkins, 2010).*

Both teachers explained how the functioning of the environment as such promotes harmonious social relationships where each child recognizes and accepts their classmate:

...the environment does a lot because Montessori is having mixed ages and having only one material of each (activity) for everyone, children learn a lot..., well, from patience to respect to waiting their turn to complete work cycles. That is, they cannot... start something else until the previous one is finished and finishing the previous one is to pick it up and leave it ready for another child to pick up (Guide).

There is only one material of each activity in the classroom, so if one student is using it and then, one of their classmates wants to use it as well, the latter has to wait their turn. This kind of rules and limits enable the promotion of participation based on relationships of mutual recognition and acceptance.

There are three clear boundaries that the teachers set in the environment: “What happens is that we also have to set limits, we have... 3 basic limits, which is one, not to hurt yourself, not to harm others... and not to harm the environment, to respect the environment” (Guide). In this way, everyone is respected and social relationships are built within healthy boundaries which if exceeded have consequences:

First, it may have natural reactions by their classmates. The guide explains this:

I think it happens to children like adults... that if someone treats you badly, then you don't want them by your side... So, if there is a child who hits at some point because he does not have the ability to express what that is, that need he has for something... then... well, you try not to be with him, or if someone is constantly bothering you, then... you simply avoid the relationship (Guide).

This, in fact, relates to what Gunnar et al. (2003) and Walker et al. (2019) defined: at this age group, aggressive children are the ones more likely to be rejected by their peers. Thus, if student participation is not based on mutually respectful relationships, it can be hindered by the natural reactions of peers who have not been respected.

In addition to this, there are also consequences established by teachers when these boundaries have not been met:

When any of these three limits is exceeded... then maybe we have to set, there are times that we even have to set a physical limit to stop the child... or give them another option: 'and if you don't want to be here, then you can take a book... but... you can't interrupt our activity'... (Guide).

Moreover, both teachers explain how mediation by adults or teachers is also important to take care of these relationships:

So, there we adults are to try to mediate... many times and redirect this social relationship so that they learn from it... learn a little, well... about being able to talk things and understand each other so that they understand why the children have acted that way and how we could fix it... and that way... create community (Guide).

The aim, then, is to build community. In the environment, freedom is fostered without the absence of a guide who is present to identify the needs of those who participate in the environment and meet them in a way that everyone is included, everyone participates and everyone is also respected. For this, mediation is an essential tool:

So that's where we adults are to try to mediate; that is, well... in this courtyard, we are all..., if something has happened, then we can talk about it and give it a chance... let's see how we can do it, what has bothered you? This, okay... and what has happened? Why did you do this? For this other. Okay, so we're going to try to fix it and that each one of us tries to do the best we can to play together... And then the children, right away, at least in my experience, give in... to this, they always give opportunities... (Guide).

Thus, when teachers identify a conflict, they approach it and mediate. This helps children to learn to empathize with others and to find a solution to the given conflict.

... well, since we... see any comment, any word, any action... from one child to another that... we don't consider correct... Well... we always try to talk to them, bring both parties together and try to empathize with the other... like... ask them how they think the other person has felt, having done or said this to them. We always try... that there is... an atmosphere... of peace, so to speak... among all the little ones (Assistant).

This leads to an environment where everyone is supported, recognized, and accepted: "... and it's very, very nice because... the older ones, help the little ones in these cases" (Guide).

Indeed, this point leads to the sense of belonging, which was described above. If there are norms in an environment that foster participation based on relationships of mutual recognition

and acceptance, the consequence is developing a sense of belonging where everyone feels included, valued, and part of the community.

However, setting limits and rules can also be analyzed from another perspective, which comes with the next point.

- V. *“Participation is a never-ending process, closely connected to barriers to participation” (Black-Hawkins, 2010).*

Some barriers to participation can always emerge and it is important to be aware of it and identify them. When teachers establish limits, sometimes the consequences result in a decrease in participation by those who have broken the rules:

If you want to be in the activity, be there, if not, go get a book or take a material, what you prefer. And then, many times children say: "no... I want to be, I want to be (in the activity)"... And they are, and... there are many times too... that we propose: "Well, if you want; if you don't... I propose that you go to the observation chair...". We have a chair in the environment, which is observation for both adults and for... the children who... who at any time want to sit down to observe or want to wait for lunch... well, that, instead of being swarming around the environment... getting into the work of others... we propose to them, they are bothering the others, we propose that they sit down, that they observe and when they are ready, then they return to the activity (Guide).

Thus, only when someone is interrupting others' activity or their participation is limiting others', their participation is reduced or redirected to other activity. However, the teacher emphasizes this not as a punishment, but as a consequence that happens when someone is interrupting others' activities:

Yes, but well, no, it's not it's not like a punishment, but it's like a logical consequence.... 'Well, obviously no, you don't feel like doing that activity or not or not, or you are not able to control your body. It's okay. You can go get a book. When you are calm, you come or... when you feel ready, you come back...'. They usually come back right away... (Guide).

Hence, it is visible that their participation is reintegrated as soon as possible. If children who broke the rule ask to participate again while willing to meet the limit this time, they are immediately reintegrated into the activity. In this way, no threat or reprimand is required. They want all of them to participate, and foster their participation, only when one student is hindering the participation of others is when they are offered to go for another activity or just observe.

It's not that you can't do it, it's that you choose... whether you want to be with us or not, now... as freedom is not licentiousness... If you want to be (with us) ... you have to respect... that is, we work more with the action and with the logical consequences... and with the immediacy than... with the quarrel or the threat... So, we try... that... that everyone, whoever wants to be there should be... (Guide).

On one side, this can be seen as a temporary refusal of participation to some child who are interrupting the work of others. However, instead of denying the complete participation in the environment, the teachers offer other kind of participation that at the same time offers an activity to the child, and set limits and favor the participation of everyone without interruptions during certain activities. Thus, these observations are closely related to two of the principles above mentioned because these rules aim for an environment where everyone can participate and where this participation is based on relationships of mutual recognition.

Hence, indeed, participation and inclusion in education is a never-ending process, and it is important to proceed and analyze carefully all the aspects at issue.

Moreover, apart from the already above-mentioned principles, another one emerged during the interviews analysis:

VI. *“Participation is distanced conceptually from notions of special educational needs” (Black-Hawkins, 2010).*

That is, participation involves everyone, not only those who have special educational needs or only those who have not, but everyone without distinctions. When talking about the mix-age group in this Montessori environment, these benefits were pointed out:

We are like a family where the young, the medium and the elderly are. The fact that there are different ages in a Montessori environment favors both the child who has needs and the one who does not have special needs. That is to say, that the fact that a society is created by cohesion, a care of one about others, an example, a curiosity of the little ones about the jobs of the elderly... (Guide).

This aligns to what the assistant also mentioned:

... I don't know if being a small group of children... they are like a team all... they always play with others... I've always seen that everyone takes care of each other... the fact that there are old and young... they have those roles, like very... mm very internalized... (Assistant).

Also, the fact that each student can progress according to their learning pace makes it different from the traditional school and benefits everyone in the class:

In a traditional school, well... as we say, it is more complicated, everyone does the same thing all the time, and to the little ones with some difficulty, well, like... they put an extra person, who must be with them all the time, like... so to speak, the special one. On the other hand, in Montessori, well... it's like... each one goes at their own pace... whether they have any special needs or not (Assistant).

Thus, it can be said that inclusion is developed internally, from within the system itself. While in a traditional system, it is necessary to put extra efforts to include someone who does not fit the pace that everyone must follow; in Montessori, by respecting the pace of each student, inclusion is developed from the beginning, recognizing that everyone is different and respecting those differences.

Regarding participation as a phenomenon beyond special education needs, teachers also pointed out that social interactions and participation in the environment are more related to the diversity of personalities and temperaments of the students than with intentions of exclusion or marginalization:

I think that goes more with the temperament... of each one... well, if there is a child who is shy, then he will have more difficulty when it comes to social relationships... than a child, well, that, with a natural extroversion.... regardless of special needs (Guide).

That is, participation is considered by the teachers as a complex fact that involves many aspects of the schoolchildren and not only SEN.

Finally, the environment aims to build participation in a way that everyone, regardless their differences, are respected. This is promoted by the boundaries set in the classroom such as the coexistence rules:

... the Montessori classroom is a classroom where... children have freedom of movement... with limits, of course, because... freedom doesn't mean it doesn't mean doing what you want but knowing how to handle yourself where you are freely... and then... both children with special needs and children without special needs... they are favored (Guide).

This, again, is closely related to the sense of belonging. The fact that there are no distinctions between the participants in an environment or community fosters and enhances the sense of belonging.

### 6.1.5 Learning and Teaching Process

As in the observation analysis, here, two categories emerged: Learning Diversity approached by the Environment, and Individualized Attention by the teacher.

#### *1. Learning Diversity approached by the Environment*

It is interesting to notice that the environment as such provides an enriching learning experience. It aims to promote learning through the activities it provides: “all Montessori materials have a direct purpose and an indirect purpose” (Guide). The fact that in the environment each activity has its learning purpose and students are free to choose them at any moment enables them to learn and work at their own pace while continue learning:

...In a Montessori environment... it is not like in a traditional school that... all the children do the same... whatever particularities they have, but that here they can have more freedom to choose the jobs with which they feel most comfortable, go at their pace, go little by little, advancing... with materials... (Assistant).

Hence, each child can learn while choosing activities they are interested in: “... the little ones do take jobs that are of interest to them...” (Guide). This is evident especially during the first school period, during work time: “... during the morning, well, in the work cycle... everyone... work at their... free choice, guided a little, by us, but, well, that's where each one is working... at their own pace” (Assistant).

In words of the guide:

...the environment is nourished... and each child... follows their interest... that sensibility that wants to satisfy... and then, well, if a child need... to work with their fine motor skills, well, they will choose... precision work... It is their inner guide, the one who tells them... the one who chooses that job because they read it is a challenge for them... Now, we have to be very careful, that the challenges that children take on are achievable... so that they don't abandon them... (Guide).

Therefore, this Montessori environment, due to the pedagogy it follows, respects the different paces and interests of each student while also meets their needs and promotes their learning.

In addition, the fact that the environment has mixed ages, has benefits in language skills that are visible by the teachers: “at the level of language, the truth is that it is very, it is positive” (Guide). Thus, this characteristic of the environment makes learning of language easier.

The environment also fosters students' autonomy. The guide mentioned that she prepares the environment, the materials and then, with this support, the students are capable to learn by themselves:

I will always say that a child has learned to read (by themselves) because the only thing I am doing is preparing them... the environment... I provide them with some materials so that they learn to read...so that he learns to read, not to teach him... he learns by himself (Guide).

Thus, according to the teacher, the environment preparation is crucial. Once teachers have prepared the environment, it is possible to give the students the freedom to move, explore, and observe in this environment. This is crucial since the ability of observation of the children is what enhances their learning:

...well, it has also happened to me with children, who, when I went to... they already knew everything. Because of course, they observe a lot... That is, a large part of the work of the little ones in the environment is observation... They are discovering new things every day, of course, as they are new in the world, well, they discover all the time (Guide).

Thus, this observation skills needs the prepared environment for the students to develop their learning and skills. Therefore, in this classroom, teachers, considering the abilities and needs of their students, prepare the environment and, with the activities presented, foster their development and learning.

In this regard, the assistant pointed out that preparing an environment for everyone doesn't mean that it has to be the same for everyone, but it has to be adapted to the particularities of them:

... everyone has that right of... having an education... egalitarian, an education in which everyone has the facilities... to access in the same way, not that it is the same for everyone, but that everyone has... what they need. Some will need more, others less; some will need this way, others will need another... (Assistant).

Hence, according to the assistany, the materials provided in the environment are diverse and are available to all the students according to their needs and interests.

However, sometimes it can result a bit difficult to adapt them to the students each day:

Of course, we have... a workload... that you are either passionate about your work... or *tela marinera* (a saying to express having great difficulty) ... because, of course... the environment has to be prepared every day... and preparing every day means... dedicating... apart from the time, well, the ingenuity to regulate this activity for such a child... apart from all the work that we have to do...

bureaucratic with the parents or with administration..., coordination..., etcetera.... (Guide).

This reflects that this flexibility in the environment and its adaptations need considerable energy from the teachers to implement it. They are also in charge of some administrative and bureaucratic duties. Therefore, it is evident a lack of time:

We often lack time to be able to adapt the environment in the optimal way.... So, it is true that there are times when you arrive in the environment in the morning and say... 'I have not prepared it..., I don't know... the work X... to a little one that I promised yesterday that I would bring it to him...' And you say, 'well, I have to tell him no, tomorrow'. So maybe that boy who was so excited about doing that that maybe had something to do with sums or writing... or with something like that... Well, maybe he has to repeat some work when what he most wanted was to do... the other thing that was going to be a novelty... (Guide).

Thus, this can emerge as a barrier to a better implementation of inclusive education. Teachers need more time to adapt the environment to the diverse needs, interests, and stages of learning of their students. Nevertheless, as the guide mentioned, it could be said that:

... as a general rule, this is an environment of varied resources... I work from 3 to 6 in a Children's House, where there are... the different work areas... and we work both in small groups... in large groups, and... individually, so yes, this is a varied job for them (Guide).

Thus, despite the barrier of time, this is an environment of varied resources that is prepared by the teachers according to the needs of the students to foster their learning.

## *II. Individualized Attention by the Teacher*

The environment preparation and the individualized attention by the teacher go hand in hand: "we start a lot from the work from observation, an observation... scientific, that is, as we observe, we go... being able to offer the child certain jobs" (Guide). The assistant also emphasized on the importance that the Montessori method puts on observation:

... I would tell you that... through observation... the Montessori method is based a lot on the direct observation of the boy and the girl... so, well... for these cases, above all, it is very important... to carry out... those observations in a direct way... every day... to be able to... see at what point each one is... what are his interests... his difficulties... (Assistant).

Thus, through the observation of their students, teachers are able to adapt and offer materials according to the needs, and interests of each child. For these personalized adaptations,

teachers carry out a follow-up of each student, their needs and interests so that they can individualize their attention properly and be aware of their progress:

... if there is a child who wants to read and does not know the sounds yet... Well, then, we note that he has an interest in reading... and then the next presentation is going to be to bring him closer in some way... to reading... and make the way easier for him... (Guide).

For this, it can be helpful the fact that there are two teachers who take care of the learning process of the group of students. This is beneficial because each adult has its own duties and the several particularities of the students can be supervised: “the fact that in a Montessori environment there are always... two adults: assistant and guide... assistant... can be more aware of... meeting those particularities and... the guide can also adapt their... presentations to the particularities of each child” (Assistant). That is, while the assistant is taking care of the particularities that emerge in the classroom, the guide is in charge of adapting and giving the needed presentations of the activities to each child. This was also noticed during observations.

In this way, each student follows their own learning pace and the teachers keep track of this progress:

... each little one has their own individualized process. That's why there is a follow-up, some records... of each of the areas... there are all the materials of each of the areas with the name of each child... and so, we mark with a line... of X, when it has been presented... another line of X if it is being practiced; And if he has mastered it and has overcome it... what I do, particularly, is that I fill everything, the whole hole... green... to be able to keep track of each of the children (Guide).

All these individualized adaptations, follow-ups and observations come from the Montessori Pedagogy which enables to offer activities according to the interests of the student:

...and well, thanks... to being in a Montessori environment... we could offer him... according to his interests. He had a lot of interest... in mathematics, in the numbers... he had a lot of memory... Well, we could... guide them a little, follow their pace and... use materials... in each area that were suitable... to the level that he had... in each area... we used a lot of sensory material... but of course... in Montessori, well, each little one follows their own pace; It's not like a traditional one that everyone goes, everyone does the same thing, all the time... well, we have that facility in terms of... adapting... the curriculum of the little ones with some difficulty... either that case or another (Assistant).

Hence, the difference between traditional and Montessori schools become visible. Sometimes, teachers even adapt some materials to the interests that they have observed in their students:

... well, in the environment there... are many materials, and... anyway, when we see a certain interest in a child, we try... to adapt the environment to those, to those interests, try to put... materials... oriented a little to... that interest they have, for example, if one has... a lot of interest in... the solar system... well, we put... language materials... of the solar system, readings... writing books... math works... depends on the level... we always try to adapt a little bit to the interests that we see in each child. It's not every week that we have the interests of all the children, but as we see, well, we try... to offer a little bit to each one (Assistant).

Therefore, the environment enables the students to move freely while the action, monitoring, and supervision of the teachers is always present. In this way, students keep interested in what they are learning while also making progress thanks to the teachers' guidance:

- ... we are directing a little so that it is not always... the same material and... that they move forward, for example, if they have an interest in something, then we are increasing the difficulty... (Assistant).

There may also be some cases where children don't find something that interests them. Teachers notice this, for example, when there is a child moving around the environment but doesn't find an activity to work on. In these cases, they offer some options and invite them to do activities that can be interesting for them, so they are not left alone:

... maybe if... he doesn't know what to work on, then you tell him, well, look, you could take this water material that I presented to you yesterday, and so. The transfer of liquids or... pass water from one with a sponge from one container to another (Guide).

New students also need individualized attention. According to the guide, they received a new student, who is not aware of how the classroom works and is just adjusting to the environment. She identified his need for progressive adaptation so they helped him with this through the implementation of different schedules than others until he can completely adapt to the environment:

- For example, with this little one who has now entered new in December, well, by entering in such an abrupt way in the environment, throwing away materials, etc., we have made a more progressive adaptation... in schedules (Guide).

Hence, due to the individualized attention that each student receives to their learning process, they can make progress at their own pace. In fact, the guide suggests that they can become aware of the progress that they are constantly making: "I guess they are aware of their self-

construction and their advances... So of course, in other words, I believe that he knows his evolution” (Guide).

This can have several benefits even at a psychological level:

... but satisfaction, of course... that contributes so much to so many factors... psychological, that is, the creation of self-esteem... that comes from within and not from outside... not from the validation of the outside, but from saying, wow, I'm capable... of this by myself... and that makes it very, very powerful... (Guide).

Moreover, sometimes, some of them become aware even of the individualized attention they receive. This can foster a sense of belonging to the community because their interests and what they say is taken into account and sometimes even materialized in the environment.

... they have commented, especially the older ones, that... they really like this or that... and then, well, he sees that material in the environment, well he does say to you: "ah, well... I said that I liked this" or... someone... thanks you... others are not, they are not aware that it is there because there are many who are not even aware that they have that interest... but you realize some fixations that they have and... and, well, you carry it out to get their attention in activities (Assistant).

Also, teachers are attentive to take care of the activities taken place in the environment. Since each one has its own learning purpose; they observe the development of their students and when recognize that one of them is carrying out an activity in a way that is losing its learning purpose, they intervene:

... when I see him that he is already playing too much... because as soon as I see that the material begins to lose its purpose... for which it is made and begins to use it later as a little plane or as anything else. Well, we already pick it up and well, 'tomorrow if you feel like it more, we will work... on this again, but now we are not working properly', we pick it up... and then when we ask him: "what are you going to do?", because always after being with a child..., then, immediately he or she finishes a presentation, the question is: 'and now what are you going to do?' (Guide).

This reflects that there is freedom in the classroom, but there are also boundaries. The boundaries set, during work time, aim to keep the learning purpose of the activities in classroom. However, the guide still gives voice and free choice to the child so that he can choose another activity to work on. That is, they are still invited to work and learn, but they are redirected when an activity is starting to lose its learning purpose.

Finally, as it was mentioned above, the lack of time of the teachers may be a barrier in the process of the method implementation:

It's true that sometimes there is a lack of time to... be able to make it so individualized... but... We try, as I said, no every week... all the little ones have some of their specific materials, but we do try during the course, go... fulfilling those interests of them (Assistant).

Therefore, it is visible that there is individualized attention by the teachers in this environment which is mainly possible due to pedagogy it implements. However, there is also the barrier of time. Teachers seem to need more time or less duties to be able to perform their main pedagogical tasks even better.

## 6.2 Observation

During observations, I realized the school journey was organized in timetables that were followed in the same way most of the time: first, the students have a *work period* in which they perform several activities with specific learning purposes, then, they have a short period of time dedicated to a *group activity* that helps to bring students together and move to the dining room for *lunch*. Afterwards, they have some *play time* in the playground, and finally, a last group activity followed by a snack they have all together to close the day. This schedule changed only for one day due to a theater visit that the school organized for the children.

Considering the dimensions proposed by Fernández-Blázquez et al. (2022), observing and analyzing the data collected, three categories were found: *Accessibility or presence*; *Participation*; and *Learning*. Each category is further divided into some subcategories that will be described below.

### 6.2.1 Accessibility

Inclusion implies equal access and quality education for all learners (UNESCO, 2005); and, as mentioned above, it is strongly linked to presence. In the Montessori learning environment studied for this research, two subcategories of accessibility emerged: accessible physical environment, and accessible communication.

#### 1. *Accessible physical environment.*

The observed Montessori learning environment shows many characteristics that make it physically accessible for all the students such as the furniture and the facilities they need which makes it easy for them to access to what they need, whether it is related to education, food, hygiene or recreation.

- The furniture (such as tables, trays, chairs, shelves, school coat racks, etc.) proportionate to the size of the children.
- The facilities the children need are also proportionate to their size and strength: the toilets, the sinks.
- The teachers tell the children that it is time to brush their teeth. There is a small sink in the courtyard, proportional to the size of the children.

However, there is only one aspect that could represent a physical barrier in this environment: the classroom is on the second floor. According to the conducted observations, in this classroom, no children showed mobility difficulties. Nonetheless, this would represent a physical barrier to any new student with mobility issues who might wish to be part of this class since the only way to access to it is through the stairs.

## *II. Accessible communication.*

The analysed environment also showed some aspects that make communication more accessible to all the students. First, the language; both teachers speak Spanish and English. One of them speaks English the whole day, and the other one speaks Spanish. Also, for those who don't speak any of these languages, the teachers make themselves understood with signs or mimics that describe the message they want to convey.

- With some children, the teacher often uses mimics to indicate what she is saying, this helps the children to understand it better because they don't speak Spanish.

Moreover, another feature of the accessible communication found in this environment is the way the teachers talk to their students. They make sure that it is easy for children to understand them by bending down and looking into their eyes to talk to them.

- When the teachers approach the students to tell them something, they bend down so that they can look in the children's eyes and talk to them directly
- The teacher uses a small bench to sit down together with the children when she is presenting to them an activity or when is helping them.

Also, teachers foster peer support to make communication in the environment more accessible.

- One of the kids speaks Russian. Apparently, he does not understand Spanish nor English. There is another kid who speaks Spanish and Russian too. So, at the teacher's request, the one boy explains to the other what is going on and what they will do.

Although this specific case was not discussed during the interview, the assistant did mention that they try not only to offer their own support but also promote peer support to make the environment more accessible.

Thus, the language and the communication skills of the teachers towards the students make the environment more accessible to them.

However, there is only one observation that could be under a different consideration. During the theatre visit the students carried out one day, they watched a play in Valencian. The school, in general, is mainly in Spanish, nevertheless, both Spanish and Valencian are spoken in the city. This, rather than excluding, could represent an attempt of integrating children into the culture of the place where they are. Still, it is a barrier in terms of accessibility since many children do not even speak Spanish, and it is the most widely used language both at school and in the social context in general.

## 6.2.2 Participation.

This dimension implies many aspects. In this environment the following were observed:

1. *First, participation involves all members of a school and all aspects of school life (Black-Hawkins, 2010).*

That is, participation relates to everyone; it not only applies to specific groups of students who are categorized as having special educational needs (Black-Hawkins, 2010). Even further, participation involves all the aspects of the life of a school (Black-Hawkins, 2010). These are some examples where this was observed in the class during group time:

- The guide sits with them and starts a conversation with them... They give the opportunity to talk to each child.
- The guide asks the children what they like most about Christmas, she gives each student the opportunity to speak and asks the rest of the children to respect and listen when someone is talking.

- Everyone sits down around the tablecloth, sings the song and the guide hands out the snack...

All these were group activities, in which all the group of students were taking part and their participation was fostered.

During lunch time, everyone entered to the dining room and started to serve themselves for eating:

- All the children entered the dining room and waited to be called by the guides to go wash their hands and/or help set the table.

During play time, not only the whole class was in the playground, but also the kids of other classes:

- All the children have already gone out to the playground. Here, there are all the children from the 3 classrooms.

These interactions show how daily activities in the school involve and invite everyone to participate, not only in classrooms, but in play and lunch time as well which is also emphasized by Black-Hawkins (2010) in this principle, participation impacts upon all aspects of school life.

*II. Secondly, "participation necessitates the active right of members to join in" (Black-Hawkins, 2010).*

In the observed environment, there were several occasions when the students had the opportunity to actively participate in the activities.

During work time:

- Another child is also interested in the activity and the guide invites him to join.

During group time:

- One of the teachers heads a birthday activity, and for it, she asks the children's collaboration to bring all the necessary things: the word "Carla" (build with the letters of the Moveable Alphabet), the earth globe, the sandpaper number of the years that Carla is turning (3), a number rod representing the number three, three golden pearls, and a carpet. Each child brings something.

- At the end, in collaboration with the children, everything is cleaned up.

During lunch time:

- The children, already in the dining room, help set the table...
- All the children go out lined up to go to the dining room where they set the table themselves and serve themselves the food with adult support when it is needed.

During play time:

- The guide leads a group activity, a ball game between about 6 children. Those who wish join in as well.

Thus, students have the right to actively join in diverse activities such as games in play time or some activities during work time; but they also have some responsibilities as well in which their active participation is needed such as tidying up after work time or setting the table at lunch time.

However, during work time, there were other occasions where, for some reason, (for example, someone is at the middle of a personal activity), the students who also want to participate are invited to observe:

- Tito has finished his work and has approached Tiara and the guide who were working on an activity (the Trinomial Cube). The guide, after noticing that an intervention of Tito had interrupted Tiara's activity, indicated that Tito could observe, but with his hands behind him.

This is a more passive kind of participation, but it shows that the student is not excluded. It can be a way of participate in learning alongside others as Black-Hawkins (2010) describes. There are activities where students can participate with their classmates and other activities where they can participate alongside with them. At the end, they can take part in any activity they wish, although sometimes more active than others, depending on the context. However, it seems that this difference (when to join and actively participate together with their classmates and when only to observe and participate alongside them) is not so clearly explained to the students.

III. Thirdly, “participation is concerned with responses to diversity” (Blac-Hawkins, 2010).

Rather than offering identical learning experiences to all students, diversity should be recognized and used as a resource that enriches and supports the learning of all (Black-Hawkins, 2010; Booth & Ainscow, 2002). In this environment, teachers seem to respect the differences of the schoolchildren and adapt their strategies to this diversity. This could be observed in the following occasions during group time:

- One of the kids speaks Russian. Apparently, he does not understand Spanish nor English. There is another kid who speaks Spanish and Russian too. So, at the teacher’s request, the one boy explains to the other what is going on and what they will do.

In this way, the teacher fosters inclusion from many perspectives. First, the student who speaks a different language is included in the activity by helping him understand what they will do. Secondly, the participation of one of their classmates helps to this inclusion because he translates to him what is happening. The teacher not only allows this participation and support by the student who translates but also fosters it. Therefore, inclusion is fostered by the participation of everyone considering and accepting their diversity.

There is also another strategy implemented as a response to this language diversity:

- The guide invites Marlon and Clementine to work. They sit down together on the carpet with the materials for this. They are working the three-lesson period (a Montessori activity to teach vocabulary). Marlon and Clementine don’t speak Spanish. In this lesson, they are learning the words: pencil, brush, and button.

Thus, this strategy, proposed by Montessori (1909), helps to foster everyone’s participation by giving students who need it the tools they need to genuinely participate and be part of this environment. Indeed, this is, in turn, linked to *accessibility* because it makes the classroom open to the students with different languages.

In addition, there is also diversity regarding temperaments or personalities. For example, not every student likes to talk in front of all their classmates. However, the guide respects these differences by allowing those who wish to speak to do so and respecting those who do not.

- (The guide) listens to those who want to speak and does not force anyone to do so.

Hence, teachers instead of denying or forcing participation, accept the diversity they have in their classroom and adapt to it.

*IV. Fourth, “participation is based on relationships of mutual recognition and acceptance” (Black-Hawkins, 2010).*

That is, schoolchildren have the right to be themselves while acknowledging the responsibility for valuing the others as their equals (Black-Hawkins, 2010). This environment fostered this responsibility through the establishment of some coexistence rules during group time:

- If someone interrupts, they are asked to listen to the one who is talking.
- The guide indicates that yesterday something that she does not like happened, she explained how they hug; and how actions such as pulling someone’s sweater, pushing them or shouting while they hug them are attitudes that “we do not like”.
- The children are asked to raise their hand to speak.

Regarding this principle, Black-Hawkins (2010) underscores the relevance of the quality of relationships among members of a school. Some observations reflect how these relationships are taken place in this environment:

When starting group time:

- A girl takes a table to move it for the group activity, and a boy, noticing that she may need help, takes and moves the table with her.

During lunch time,

- A student offered her support on its own initiative, I did not have a chair to sit on... and one of the girls offered me one.

During play time:

- Today, there is also one child from Infant Community (a younger classroom) and two girls from the Children’s House are with him and seek to help him with anything he needs, they stay with him.

This, indeed, reflects not only the relationships between students, but also between students and staff; which is also important in this point as Black-Hawkins (2010) describes.

Moreover, the fact that none of these actions were requested by teachers, but children themselves took the initiative to do it may be an indicator of how internalized this way of participation in the environment is. This kind of participation recognizes, accepts and support the other without any external condition or obligation.

Nevertheless, there were also behaviors that can be potentially harmful. When teachers notice this kind of actions, they establish boundaries to keep the harmony in the environment:

- When the guides see that a child is not ready (not respecting the coexistence rules), they ask them to sit elsewhere if they are not ready.
- There is a boy that tends to show disruptive behavior, especially when he is with Leandro and Tyron. The guides let him choose between two options: being with us on the ellipse, but far from these classmates, or sitting down on another chair outside the ellipse.

Teachers also mediate when some conflicts emerge, which, if not addressed, could cause exclusion or emotional harm to others:

- When the children are together, one of them says to a girl: “you don’t”. The guide observes this, and she corrected him by saying: “yes, she can, we are all here”, she repeats it two or three times and then the boy calms down and stopped doing so.

Thus, when aggressive behaviors are observed, teachers intervene. However, it sometimes happens that they don’t notice these actions.

During group time:

- A girl wanted to sit down on a bench with their classmates but there was no space, and 3 boys were pretending that they were giving her a space on the bench, but they were not. The guide did not notice this.
- Tiara, the girl who had been pushed before, approached the boys and tried to hug them, but they slightly pushed her away, Tiara left.

During play time:

- Two kids hit a girl.
- A boy pushed and pulled a girl while playing with her. After a few minutes, he did it again, pushing another girl.

“Aggression has often been found to predict peer rejection” (Coie & Kupersmidt, 1990, as cited in Gunnar et al., 2003). However, the relation between aggression and peer rejection is weak for preschoolers (Coie et al., 1988). Either way, it is important to remain attentive to the aggression behaviors that occur in school settings.

It is noticeable that these situations were not noticed by the teachers; when they notice them, they intervene and mediate. According to the observations, it seems that these unattended interactions tended to occur during group and play times. That is, when many social interactions were taking place. Sometimes they seem to be so many that they are beyond teachers’ capacity. This could indicate that maybe new strategies need to be developed so that these situations keep attended.

Nonetheless, it is important to observe in more depth these situations and find the cause. For example, regarding the last observation, the same boy showed the same aggressive behavior two times to two different kids, thus, rather than exclusion of some children, this case of aggression could be related to a more personal reason that concerns this boy.

Indeed, one of the main causes of this could be related to parenting issues. According to Wood et al. (2002), “early parenting behavior may affect children’s behavioral regulation and, potentially, subsequent peer acceptance or rejection early in school”.

In any case, considering this, and that, in fact, at this age group, aggressive children are the ones more likely to be rejected by their peers (Gunnar et al., 2003; Walker et al., 2019); teachers can be more attentive to these situations, intervene, and, prevent.

There is another observation related to this, during work and play time respectively:

- The girl who two boys had pushed before sat down together with them... on the other chair of the same table as one of the boys.
- Leandro and the girl he pushed before now play in the same team.

These observations could lead to more in-depth analysis. There was a previous case of aggression, however, the girl is not excluded by the boys when she joins in an activity they

are doing. The reasons and causes for the previous aggression should be more studied and observed to reach a precise conclusion. Considering that her participation is not denied, it seems that the boys don't have the intention to exclude her. Nevertheless, the aggression cannot be tolerated in any case.

V. *Fifth, "participation is a never-ending process, closely connected to barriers to participation" (Black-Hawkins, 2010).*

That is, during the process of increasing participation for some students, it can emerge some situations where others are being excluded, and thus, some barriers are being reinforced (Black-Hawkins, 2010). According to Black-Hawkins (2010), these processes may be difficult to identify. In this environment, some situations can be analyzed according to this idea:

- The children that do not respect the rules are asked to sit outside the circle until they are ready and able to participate in the activity.
- The children that don't wait seated and silent are not called to help set the table.
- The children are often frustrated when faced with the consequence of disrespecting the rules.

These observations are closely related to the last point about relationships of mutual recognition and acceptance. In the environment, there are some coexistence rules that are clearly established, and, indeed, they enable a calm and harmonious environment where everyone can participate. When someone disrespects these rules is seen as a student that is 'not ready' to participate in the activity, so he/she is allowed or fostered to do another activity or simply sit aside so that the group can continue with the activity.

Thus, greater participation by most of the students is possible, but reducing the participation of those who, in turn, through their behavior, have imposed barriers to participation of others. Black-Hawkins (2010) refers to this as a never-ending process which makes evident that a fully participatory institution is difficult to reach, however, it is an aspiration necessary and well worth pursuing.

Nevertheless, the participation of those who hinder the participation of others is fostered after the rule has been established and understood:

- After a moment, the girl, who on this occasion was set aside for the reason described above (not respecting the rules), approaches the guide and asks her to participate, saying that she is ready. Then, the guide gives her the opportunity to show it and asks the girl to sit in the circle again.

Therefore, in general, a more respectful participation by everyone is promoted and once there is a respectful relationship, everyone participates peacefully in the environment.

### 6.2.3 Learning and Teaching Process

In the observed environment, two subcategories emerged: *Learning Diversity approached by the Environment*, and *Individualized Attention by the Teacher*. The first one was mainly observed during work time, and the latter was present during work, group and even play time.

#### 1. *Learning Diversity approached by the Environment*

This learning environment has shown some aspects that approach and welcome learning diversity.

First, the freedom that students have in choosing what to work with.

- Children choose what to work with and they go to the table.
- A child has chosen to work with a dressing frame with buttons
- Marlon has chosen to work with graph paper. It is an activity with numbers from 1 to 100.

Each activity presented in the environment seems to have its specific learning objective as Montessori (1909) asserts in her method. Thus, the student is free to choose any of these while continue learning. This adapts and embrace each student's learning pace and, therefore, embrace their differences, allows them to explore their interests while encourages their learning.

- One girl has spent almost an hour working with clay.
- Now, there is a kid working with the trinomial cube, another child serving him/herself a bit of fruit, another kid working on a writing activity with the guide, another child

working on a puzzle, another kid is doing an art work..., another child is working with the Spain map (a puzzle), another child is working with one of the metal insets.

Hence, the environment itself seems to promote students' autonomous and participatory learning in which they make choices about what they learn which is aligned with what Black-Hawkins (2010) recommends when mentioning the necessary active participation for learning.

## *II. Individualized Attention by the Teacher*

The individualized attention that the students receive in this environment is evident in many occasions, especially during work time:

- Once they finish the group activity, the guide asks each child what they are going to work on and invites them to go get the material and work.
- The guide has started a presentation of an activity to one of the children. She and the boy take the material, and take them to the table... The guide shows him how to cut and paste with a paintbrush.

In this way, teachers aim to offer activities to each student according to their interests and stages of development. It is evident that they are constantly observing:

- The guide observes and approaches those who seem to need help.
- The guide approaches Tiara who, apparently, is struggling with an activity (the Trinomial Cube).
- There was a child who was walking around the classroom without finding an activity to work on. The guide asked him what he would like to do and suggested him an option. The child agreed...

Thus, thanks to their observations, teachers can approach those students who need help, and also present new activities to some of them. Moreover, when one of the teachers is occupied and cannot attend to a student who needs it, the other one takes action:

- One of the girls cries and complains a little bit because she wants the attention of the guide (the one who is with the new student). She, the guide, explains to her that she cannot be with her because she is with the new student. The other teacher (the

assistant) shows to the girl, who was a bit tearful, an activity that she can do, so she calms down and gets to work.

Therefore, a personalized attention is visible, and when one of the teachers cannot provide it, the other one gets involved. In this way, they implement what Montessori (1949) describes: the teacher must be attentive observing the students' progress and the needs that could arise throughout the work period. This makes possible to offer them the attention they need in their own stage of learning, thus, the students can receive a personalized attention in the class.

It is also interesting to notice that when a teacher is attending to one student, and another one asks for her attention too, the teacher gives all her attention to the first one she was attending and then helps the other ones. Moreover, she explains this to the children who were asking for help, and, thus, the individualized attention is not disturbed and develops in an orderly way.

- During the presentation of the cut-and-paste activity, other kids approached the guide to ask her something, however, she indicated that at that moment she was performing a presentation to another child.
- The guide gives all her attention to this student during the activity. The other teacher is in charge of being attentive to the other children and their needs.
- The only moment that the guide does not assist a child when they need it is when the guide is assisting another child. The child must wait.

During group time, the guides also offered their help to some children:

- The guides were helping some children, afterwards, they joined in the ellipse.
- All the children sit down except 3 who are still working. The guide approaches one of them who looks frustrated.

During play time, some kids need a different attention than the others, one of the teachers take care of this:

- The guide calls some children and takes them to the bathroom. In a moment, they will take a nap while the rest of their classmates continue playing in the playground.

Therefore, it is evident that individualized attention is given throughout the school day.

However, there are also some occasions when this individualized attention seems not to be

met. This can have several causes and should be under more in-depth study, observation and analysis. Nevertheless, the annotations related to these situations are significantly less than the cases when the individualized attention is implemented.

- One girl, apparently, wants to work on a new activity, which has not been presented to her. The guide realized it and said that she will introduce this new activity to her in a moment. However, the guide... was apparently filling in the day's agenda... and could not meet her need. The girl got the material anyway and went to work on it on a table.

In the interviews, teachers mentioned the lack of time they were experiencing. One of the causes for this seems to be the several duties they have to do. In the situation described above, the guide was apparently filling the day's agenda, perhaps an administrative task, however, this impeded, at this specific moment, the personalized attention the student needed.

Therefore, in general, individualized attention is provided when needed, nevertheless, the lack of time and several duties, which sometimes are beyond teachers, act like a barrier that may hinder this attention. This is important to take into account so that the attention in the classroom can keep its quality and be improved when necessary.

## 7 Discussion

This study, which aimed to analyze the inclusive education implemented in a specific Montessori learning environment, through interviews and observations found five important dimensions. Three of them were identified in both interviews and observations' results. However, two of them, due to the kind of information they collected, were difficult to identify by only observations. Perhaps, further observations after this analysis could broaden even more the findings. However, this can be used as lines for future research.

The first three dimensions identified by interviews and observations' results: accessibility; participation; and learning and teaching process, are not only presented by Fernández-Blázquez et al. (2022), but also stressed by UNESCO (2005), who states that "inclusion refers to the presence, participation, and achievement of all students".

### 7.1 Accessibility

Accessibility makes presence of diversity possible. Observations and interviews results found that this is an accessible physical environment and the communication managed in it is also accessible. That is, teachers aim to organize an environment that is prepared and enriching for all, taking into account students' particularities and putting everything within reach. Also, teachers foster accessible communication by allowing students who need it different ways to communicate such as mimics or gestures. This was possible to confirm through interviews and observations. Thus, regarding these aspects, teachers' perceptions are visible in classroom practices.

However, regarding the physical environment, a particularity observed was that the classroom is on the second floor. This could add difficulty of access to children with mobility difficulties if they would want to be part of this environment. It is clear that this is not an issue under the teachers' control. However, further investigation can be done by interviewing the principal and the management team.

In relation to communication, it was observed, although not discussed during interviews, that teachers even bend down when talking to children. This makes communication more accessible, specifically between educators and students. Also, another example addresses peers' support. When it is possible, the teacher fosters peer mutual support to enable everyone's participation, for example, by translating to a different language what is happening

in class. During observations, there was a specific student who was fluent both in Spanish and Russian, he was enabled and invited to translate some of the things happening in class so that the peer who only speaks Russian could understand. In this case, observations and interviews align in the sense that the assistant mentioned peer support as a tool for fostering accessibility and then, a specific application was observed. Therefore, although interviews and observations align, further observations after this analysis could give even more precise results.

Thus, in spite of some barriers such as the location of the classroom on the second floor, accessible physical environment and communication was demonstrated.

Apart from these, interviews made possible to identify that in this environment, diversity has been present from several perspectives: learning, social/cultural, and developmental diversity. Regarding learning diversity, although according to the guide it is difficult to have confirmed diagnosis at these early ages, teachers have received in their classroom students with autistic traits, attention difficulties, hyperactivity and maturation delay.

They have not received students with physical impairments, however, it doesn't seem to be a problem, on the part of the teachers, if this occurs. When analyzing teachers' *reflection*, which is one of the conditions for inclusion discussed below, it is visible that flexibility is one of the main characteristics of the environment and the strategies of the teachers who constantly adapt the activities to children's needs. This indeed seems to be present all the time since diversity is recognized and experienced on daily life.

About social/cultural diversity, the guide mentioned the different nationalities there are in the classroom and both teachers pointed out that some of them don't speak nor the local language, Spanish, nor English. Still, they are welcome to be part of the classroom. Also, the assistant mentioned that these differences go beyond the language; there are also cultural differences. The assistant stated an example of how they adapted the environment and some materials to the cultural traits of one of their students. This, indeed, recognizes diversity and adapts to it.

In relation to developmental diversity, the guide mentioned that Montessori pedagogy intends to give learning opportunities to any developing human, that is, regardless their stage of development or any condition, in this pedagogy, everyone is invited and welcomed to learn. This is mainly reflected in the fact that in this learning environment there are children from 3 to 6 years old all together in the same group. Thus, diversity is daily seen by not only the

teachers but also the students. Indeed, Guzmán (2023) finds that the presence of mixed-age groups in Montessori pedagogy is strongly linked to attention to diversity and inclusive education since it helps children to see diversity as a natural aspect of daily interactions.

Therefore, accessibility to learning, social/cultural and developmental diversity is visible. These subcategories were difficult to identify in observations because aspects involved in these subdimensions such as autism, ADHD, nationalities, ages or developmental stages are more difficult to identify by only observing for a few days.

Thus, interviews results not only confirmed the observations findings but broadened them by detecting the presence of diversity. Further observations after interviews and data analysis could provide even deeper analysis about this topic.

These findings are in line with Guzmán (2023)'s research where is concluded that Montessori Pedagogy attends to diversity and shows inclusive education since students can see diversity as a natural aspect of daily interactions thanks to the presence of diversity in its environments.

## **7.2 Participation**

Black-Hawkins (2010) identifies seven principles. However, in the present study, this dimension was analyzed with six of them since the one related to learning: “participation requires opportunities for learning to be active and collaborative for all” (Black-Hawkins, 2010) is linked to the next dimension described in this study: *Learning and Teaching Process*.

First, it was observed that all students were always invited to participate, that is, everyone is involved in all the activities in the school. In fact, these observations were not only found during work time but during the whole school day which shows participation as something not only related to learning settings but during all the activities and daily interactions in the school. Indeed, the guide remarked that everyone can participate in everything and the assistant confirmed it by mentioning that they plan every activity taking into account every student in their class. The guide added that they try to foster participation of everyone not only with teachers' support but also promoting peers' help between them; which is actually found as one of the responses to diversity.

Additionally, the assistant, for example, during her interview mentioned that when someone has difficulties for participating or talking during a group conversation, she tries to help them but without forcing them to speak. For example, by making simpler questions. This would

need to be looked at in more detail to identify it in practice, however, during observations regarding responses to diversity, it was visible that teachers give everyone the opportunity to talk without forcing anyone.

Therefore, it is evident that in this learning environment: “participation impacts upon all members of the school and all aspects of school life” (Black-Hawkins, 2010), which indeed aligns to Montessori Pedagogy. Montessori (1909) aimed to promote an education for everyone that addresses even the daily aspects of life. For example, by enhancing practical life skills that help children in their social daily skills and interactions (Montessori, 1909). Therefore, this principle is aligned with Montessori and it is, in turn, implemented in this environment.

Secondly, “participation is a right that is shared by all” (Black-Hawkins, 2010). As it was mentioned before, according to the guide, everyone can participate in every activity of the environment. That is, they have the active right to ‘join in’ (Black-Hawkins, 2010). This was observed in many occasions: when the teacher explicitly invited some students to join an activity or when teachers worked in collaboration with their students to tidy up, set the table or bring materials for an activity. These could be seen also as different ways to make students be part of every activity in the environment, which was, indeed, outlined by the assistant. Thus, as mentioned above and also by the assistant, teachers plan their activities taking into account every child.

However, in this environment, the students’ rights and responsibilities went hand in hand as Black-Hawkins (2010) pointed out. For example, the students can work on the activity they are most interested in, but they also have to tidy up after using a material or a space; and have to wait while one of their classmates is using a material that he/she wanted to use as well. This was not only mentioned by the guide but also observed. Sometimes it is difficult for children to wait and they want to do what their peers are doing without noticing that they may be interrupting their activity. When this happens, teacher negotiates another type of participation. In the observed case, teacher offered the child to observe while his classmate was doing the activity that he was eager to do too.

In this way, it is visible that, in the environment, there were personal activities that required peers to wait for their turn, but there were also some group activities in the classroom where students could participate together with the same material; in these, the teacher herself invited some children who seemed interested to join. Perhaps, the distinctions between personal and

group activities need to be more clearly explained to the students so that “the right and responsibility to participate in learning alongside and with others” (Black-Hawkins, 2010) is maintained and clear for all the participants. However, it is evident that participation is always allowed and sometimes negotiated when needed.

Thirdly, various responses to diversity were identified. This diversity, as mentioned in the results, is related to learning, cultural, and developmental issues. Regarding learning diversity, the guide mentioned how through observations they could find out what a student with attention difficulties needed, and thus, they adapt the environment and offered him activities adapted to his needs so that the boy can stabilize his attention and work with the activities without problems which, according to the guide, was indeed achieved. This case couldn't be observed since it occurred after the observations took place. However, in any case, this type of events that involve teachers' intentions and activities' purposes are more difficult to identify by only observing, perhaps, observations after this analysis could provide more information regarding this.

Another response to diversity, regarding social and cultural issues, stood out for its close connection to the Montessori Pedagogy. When there is language diversity, the guide uses one of the lessons adopted by Montessori to give children more language tools so that they can communicate in the local language and, thus, make the environment even more accessible to them. In this way, they will not only be able to be present in the classroom, but they will also have the opportunity to actually participate in it. This lesson was both observed and mentioned by the guide during the interview.

The lesson at issue is known as the Three Period Lesson. This is a teaching practice originally used by Eduard Seguin that Montessori adopted in her method to develop language acquisition and vocabulary learning (Montessori, 1909). It is implemented with two or more objects and, as its name indicates, the lesson is divided in three periods: Naming, Recognition, and Recall (Montessori, 1909). In short, the first period introduces two or three new words and associates them with their sensory perception (e. g. ‘this is pencil’, ‘this is eraser’ while showing them); the second period is aimed at the child's recognition of the object corresponding to the name (e. g. ‘which one is pencil?’ waiting for the child to indicate it); finally, the third period looks for the child to remember the name of the object (e. g. ‘what is this?’ which child's response would be ‘a pencil’) (Montessori, 1909). This lesson, adopted by Montessori Pedagogy, greatly encourages inclusion and participation of students who

don't speak the local language. Hence, it fosters the responses to diversity that Black-Hawkins (2010) underscores as an important feature of participation.

Moreover, during group activities, differences regarding developmental stages can stand out. When this occurs, the assistant mentioned the flexibility that is applied to adapt the activity in a way that everyone can participate even despite their different developmental stage. For example, the assistant mentioned that when a group activity involves cutting out, and some children cannot do it yet, the activity is adapted to them with different strategies. This was not observed; however, this analysis could serve as a guidance tool to put more attention in these details during further observations.

Howsoever, these findings reveal that diversity is not only present in the classroom, as identified in the category of *accessibility*, but it is actually included in the environment where teachers respond to this diversity and foster their participation by meeting their needs and interests. This finding is aligned with both UNESCO (2005) and Guzmán (2023). UNESCO (2025), on one side, underscores responses to diversity and living with difference as a key element in inclusion; and Guzmán (2023), on the other side, found that Montessori's environments enable children to experience the diversity as a natural aspect of their context.

Fourthly, "the quality of relationships between members of a school is crucial" (Black-Hawkins, 2010). In this classroom, a crucial strategy observed to take care of the relationships in the environment is the intervention by the teachers which is visible through mediation or establishment of some boundaries. The assistant, indeed, mentioned that when they, as teachers, see any behavior that could be harmful, they intervene and mediate. This was also observed. When aggressive behaviors were noticed, teachers intervened by mediating or setting boundaries.

However, it was observed that there were also some aggressive behaviors that weren't noticed by the teachers. This, certainly, need further investigation. Nevertheless, it can show that more detection strategies of these situations may be developed. On the other side, these behaviors didn't seem to lead to an intended exclusion since the children who were harmed were then included normally in the next activities by the same peers who harmed them before. Indeed, as Coie et al. (1988) states, the connection between aggression and peer rejection is weak for preschoolers. Also, the causes of these aggressive behaviors may be totally beyond the control of teachers. Wood et al. (2002) mentions that children's behavioral regulation can be influenced by early parenting behavior.

Additionally, in this learning environment, the guide mentioned that there are three basic boundaries or coexistence rules: not to harm oneself, not to harm others and not to harm the environment. These boundaries weren't explicitly observed but it was visible a constant setting of boundaries by the teachers to the students. For example, one of the teachers once talked to the whole group of children and showed them how to hug and explained them that there are some attitudes that one doesn't like and can be harmful such as pushing someone or shouting to someone etc. Also, children were asked to wait for their turn to speak, listen to the other classmate and raise their hand when they want to speak. All of these boundaries may fit with one of the three mentioned by the guide: not to harm others, but also goes beyond it, that is, not only not to harm them, but also to respect them. The other boundaries weren't observed but it doesn't mean they are not there. Further observations would provide more information about this.

In addition, if one of these boundaries is exceeded then, the consequences may vary. First, the guide explained that if one of the children is harmed by another one, a natural consequence could be that the child who was harmed will avoid interactions with the one who harmed them. This, indeed, aligns to Gunnar et al. (2003) and Walker et al. (2019) who stated that at this ages, aggressive children are the ones more likely to be rejected by their peers. This is an interesting aspect that could be further observed. Moreover, if one aggression is detected by the teachers, another consequence could be that the teachers physically stop the child; this seems to be implemented only when necessary because, at least, during these observations, it wasn't observed as a strategy that they use frequently.

Moreover, another consequence established by teachers may imply a decrease in participation of the person who broke the rules. This was confirmed in observations. When a child was interrupting or carrying out a disruptive behavior, teachers intervened. Sometimes they asked the child to do another activity until he/she is ready for working in group or sometimes they offered the child options for them to choose but the boundary was kept. This aligns to the fact that freedom and equality are the fundamental principles of any relationship: one cannot be maintained without the other as Macmurray (1950) explains.

Finally, another strategy established when boundaries are not respected is to offer the child another option for participation, for example, reading a book or any other activity. This is, indeed, also observed in one of the points noted in the principle of participation as an active right to join in. Teachers tend to offer other options of participation like negotiations between

teacher and students of what is allowed and what is not regarding the respect of others' boundaries.

Indeed, this is linked to the second principle above-mentioned. According to Black-Hawkins (2010), the right to be oneself goes hand in hand with the responsibility for valuing others as equals. It is evident that this is what is taken into account when establishing the rules in this learning environment. Students have the freedom to be themselves and participate in the classroom, but also the responsibility to respect others and recognize their value and freedom as well. These rules and limits are set through teachers' mediation when necessary.

This impacts upon the quality of the relationships in an environment. During the observations, some supportive and helping behaviors among peers and even with the staff in the school were identified. These seemed to emerge from the own initiative of the students since anyone asked them to carry them out.

The guide stated that the mediation they implement in the classroom aims to foster conflict resolution and create community among the children. The supportive behaviors that the students showed between each other and with the staff, during the observations, seem to be creating this community that is aspired and thus, it may be a sign of an internalization process of these behaviors.

Montessori (1949) also addressed the importance of freedom and discipline in the classroom; she mentioned how children could built a society if they had freedom in their environment and the opportunity to be themselves, but also the clarity of respecting others' work. Thus, although there may appear some difficulties, in this classroom, the teachers look for participation that is based on respectful relationships where there is mutual recognition and acceptance as Black-Hawkins (2010) stresses.

Fifth, "participation is a never-ending process" (Black-Hawkins, 2010). That is, while increasing participation for some, barriers to participation for others could be reinforced; however, these processes can be difficult to identify, and therefore, be ambiguous (Black-Hawkins, 2010).

This is closed to the last principle mentioned. For example, the consequence established by the teachers of not participating in the group activity to the student who is not respecting the rules can be seen as a decrease or barrier to participation. The guide mentioned that a consequence of interrupting group's activity or trespassing boundaries is asking the child to

sit in the observation chair, thus, reducing their participation. This was confirmed in observations results where students who don't respect the boundaries established were, for example, asked to sit outside the circle.

Nonetheless, these strategies can also be seen as actions that intend to take care of the balance freedom-equality in the environment which is closely related to the principle mentioned above: "participation is based on relationships of mutual recognition and acceptance" (Black-Hawkins, 2010). That is, if there is no mutual respect about the work and voice of others, participation cannot be built, because the base of it is the mutual recognition, acceptance and respect. In this way, respectful and friendly participation by everyone is fostered.

In this case, regarding the boundary abovementioned, the guide said that they don't use it as a punishment since children are always invited to participate but they stress on the responsibility that this participation also involves. The guide stressed that children can always be part of the activity but they also have to respect the activity, the group and whoever is at their side. Teachers sometimes even offer them some options as mentioned in the last principle. However, the guide mentioned that they, after establishing the boundary, still invited the children to participate: "when you feel ready, you come back" and this was, indeed, observed. After the boundary is established and the child asks for participating again, the children are invited to do so as long as they respect the boundaries.

Hence, it is true that it is important to keep attentive to the participation process and identify any barriers that may be being reinforced. However, it is also crucial to respect all the principles. The actions that look for the balance freedom-equality require a more special and carefully attention since they can either foster participation or hinder it.

Finally, participation involves everyone, without making any distinctions between the participants. During the interviews, the guide mentioned how everyone, whether they have SEN or not, benefits from the prepared environment. Indeed, she pointed out a phenomenon identified by Montessori as *social cohesion*. Montessori (1949) described that during the implementation of her method a community emerged among the students. Some of this is indeed observed in the supportive behaviors that some children showed by their own initiative and which were already mentioned in the fourth principle. Montessori described this as a group of independent individuals driven by the same impulse where a spirit of family emerged; that is, each one loves, defends and appreciates the value of the group (Montessori, 1949).

This is also in line with teachers' descriptions about their group of students: "...they are like a team all... I've always seen that everyone takes care of each other... (Assistant); "We are like a family... a society is created by cohesion, a care of one about others, an example, a curiosity of the little ones about the jobs of the elderly..." (Guide). This, clearly benefits everyone without distinctions: "...the fact that there are different ages in a Montessori environment favors both the child who has needs and the one who does not have special needs..." (Guide).

Also, the assistant mentioned that the fact that this is not like a traditional school setting, it is easier to include and benefit everyone whether they have special needs or not. Since each student can follow their own learning pace, this enables to include everyone without making distinctions or viewing someone as 'the special one' as the assistant also remarked. The fact that it was not possible to identify, by observations, who had SEN or not, and therefore there are no specific observations about this principle, indicates that this is actually confirmed. In the environment, by only observing, it is not possible to identify who has SEN or not, or who is 'the different one'. Instead, difference is embraced and seen as something that characterizes everyone because each person, each student is different and will have different needs and different abilities.

Thus, in this learning environment, participation develops distanced conceptually from notions of special educational needs as Black-Hawkins (2010) describes, that is, without making distinctions between groups of students in class.

Hence, in general, regarding participation, classroom practices reflect what teachers perceive and describe.

### **7.3 Learning and Teaching Process**

The last dimension identified in both interviews and observations is *learning and teaching process* which is subdivided in learning diversity approached by the environment, and individualized attention by the teacher.

Regarding the environment, in interviews results, both teachers described that the students can move freely in the environment, choosing activities according their interests and following them at their own pace. The assistant emphasized this as a clear differentiation between this environment and traditional schools since students in Montessori classrooms were allowed to follow their own learning pace and not to do the same thing as everyone. All of this was confirmed with observations. Students could choose what activity they wish to work on and

they could keep doing that activity for as long as desired. However, interviews enabled to deepen this category.

The guide mentioned that each activity has its learning purpose which enables students to have freedom while still learning. According to the guide, this environment also fosters autonomy since, through its preparation by the teachers, it provides students with materials and activities, but then all the work and learning process is carried out by the students themselves. This involves active participation by learners which is aligned with Black-Hawkins (2010) who stresses, in one of their principles, the importance of participation in learning processes. Regarding this, the guide stressed the main role the students played and how their observation was crucial to their learning. Thus, since the learning environment enables a lot of observation by their students, their learning is greatly fostered. In this way, children are not only encouraged to learn but also to be the most autonomous possible. The guide described how the preparation of the environment was crucial, but then, the student had a very active role in their learning.

In addition, teachers try to prepare the environment with various resources and materials that meet student's needs. The assistant mentioned that it is not like everyone has the same, but everyone has what they need. Nevertheless, the students are not left alone. The environment has a very important role. However, both teachers stated that the guidance by them is also present when is needed. This is aligned with Montessori (1909) and Rodríguez (2023b).

Concerning individualized attention by teachers, both teachers mentioned the constant observation they implement during their school day. According to the assistant, it helps them to identify interests, needs and difficulties the children present and thus, according to the guide, offer them activities suitably. Thus, as the assistant stated, it is possible to offer students the materials considering their interests and also, according to the guide, it is possible to guide them when they seem not to find any activity. All these points were also confirmed by observations. Indeed, the guide was offering activities to the students and when a child didn't find an activity to work on, the teacher suggested them some. Teachers' observation was also evident in the environment since they were constantly approaching those who seemed to have difficulties in their activities.

Nevertheless, as in the above category, interviews were able to provide further information. The guide mentioned the follow-ups they do to track their students' interests and progress and the assistant pointed out the benefits it has since it enables to follow each students' pace

which is not possible in traditional school settings. In addition, through interviews, it was also possible to detect the progressive adaptation of new students through schedules and the boundaries setting that there is in the classroom. The latter attempts to maintain purposeful activities in the environment so that the students have the freedom to move in the classroom while still learning and keeping a harmonious ambiance for everyone.

The assistant described how the guidance by them was also crucial. Sometimes they identify not only interests, but also progress on the chosen activities. Then, teachers try to increase difficulty so that they are constantly progressing.

In addition, due to the individualized attention that children receive, they can follow their own pace of learning. The guide mentioned how this helps students to recognize by themselves their own progress and thus, feel capable of learning and making progress. On the other side, the assistant pointed out that, sometimes, some children are also aware of the individualized attention they receive, for example, children notice materials adapted to their interests that they mentioned days before.

Moreover, it was also observed that this individualized attention was carefully and orderly implemented because when another student required teachers' attention, they waited until the teacher could attend to them. If it was possible, the other teacher attended to the student who was in need of something. Therefore, as the assistant mentioned, being two teachers in the classroom helped to better meet the needs of their students.

However, it was also identified a lack of time by the teachers to provide individualized attention and proper environment preparations. This, if not addressed, could be a potential barrier for inclusion. It was, indeed, visible in one of the observations; when a student asked for a presentation of a new activity and the guide couldn't do it due to other apparently administrative work. Thus, if this is not properly addressed by the school, it could hinder inclusion in the future. Therefore, it is important to be attentive. Apart from that, this Montessori classroom seems to approach and embrace diversity through and adaptative and flexible environment and the individualized attention given by the teachers. This information was collected by both interviews and observation. Hence, regarding prepared environments and individualized attention for a more inclusive learning environment, teachers' perceptions translate to classroom practices.

As it is described by Montessori (1909), the environment is prepared for the students and this preparation is possible due to the individualized attention and observation the teachers give to their students. These two categories are strongly linked, one cannot arise and exist without the other one (Guzmán, 2023; Montessori, 1909). Indeed, the individualized attention and the flexible prepared environments was also found as inclusive practices and attributes of Montessori Pedagogy in the research done by Guzmán (2023).

## 7.4 Values and Conditions

Apart from the three dimensions described, during the interviews analysis, other two dimensions were identified: *values* and *conditions*. Fernández-Blázquez et al. (2022) evaluates, on one side, values as those shared by the educational community that generate more inclusive education; and, on the other side, conditions as the internal characteristics of the school that are necessary to initiate, facilitate and maintain school transformation processes towards a more inclusive education. That is, while the first one refers to the values and principles related to inclusion that the educational community shares; the latter is more concerned about the flexibility and adaptation of the school practices and politics for a more inclusive education.

### 7.4.1 Values

As presented in the results, the values shown in this Montessori environment are: sense of belonging, welcoming of diversity, teachers' flexibility and conflict resolution.

Regarding sense of belonging, the assistant mentioned that children help and take care of each other, she described as a team where support seems to be internalized. The guide stressed on the importance of providing them with experiences that help them to adapt, feel loved, valuable and never alone in the environment. According to Whiting et al. (2024), the sense of belonging in schools is a crucial and protective factor for all students, and, as Vossen et al. (2023) states, it is indispensable for increasing inclusion in education.

Regarding welcoming of diversity, the guide indicates that Montessori pedagogy has helped her to address diversity and see it as something that characterizes everyone. Thus, it seems that diversity is embraced and experienced as an overarching aspect of the environment. The guide mentioned that SEN is seen as just another difference, that is, there is a lot of diversity and SEN is not the only difference seen in the environment. Therefore, this could be

considered as an inclusive environment that truly embrace diversity without making distinctions. Indeed, this is aligned with UNESCO (2005) and Shaeffer (2019) who state that a school that is genuinely inclusive in nature welcomes and celebrates difference and diversity.

About teachers' flexibility, it is an essential tool that closely relates to welcoming diversity. That is, diversity needs not only to be seen and recognized but also truly included. According to the guide, the materials, activities and the environment itself adapts to the characteristics of each child and enables to follow their pace. This reflects the flexibility teachers have to adapt the environment to each child. Thus, the teachers and their flexibility play a crucial role for inclusion, as it is also mentioned by the guide. Certainly, Lübke et al. (2021) concludes that teachers' flexibility is crucial in the development of inclusive education. Therefore, teachers' abilities in this learning environment fosters inclusive education.

Finally, for conflict resolution, the assistant mentioned that teachers in this classroom use what is known as *positive discipline*. According to Rossini (2021), teachers' ability to foster positive discipline is an essential feature of an inclusive school environment. It is evident, then, that these values are crucial for inclusive education and the teachers in this classroom, following Montessori pedagogy, prepare the learning environment based on them, which not only means that Montessori Pedagogy and inclusive education are strongly linked, but that this Montessori learning environment implements many important aspects of inclusive education. In short, these values promote this Montessori environment as inclusive education.

#### 7.4.2 Conditions

Lastly, this Montessori environment has shown to have the four conditions for inclusion that Fernández-Blázquez et al. (2022) defines: reflection; use of evidence; collaboration; and willingness to seek training, support and advice.

Regarding *reflection*, it is evident that teachers carry out daily reflection processes to adapt the environment for each schoolchild. Moreover, teachers are even willing to reflect about the adaptation and individualized attention of new hypothetical cases like, for example, children with physical impairments. This reflects not only a daily reflection for individualized adaption which is certainly needed to implement inclusive education, as stated by Georgiadi & Papazafiri (2025), who concludes that, through reflection, teachers can refine individual

educational programs to ensure that each learner receives the necessary support; but this teachers' ability also shows their openness to diversity.

Secondly, *use of evidence*. Montessori built her method based on her observations, which were in fact intended, first, for children left out of the educational system and then, for all children (Montessori, 1909). This is, indeed, also mentioned by the guide during the interview. Since Montessori Pedagogy was inclusive from the very beginning, it has been developed as an inclusive method with strategies and techniques that lead to inclusion and which are flexible and adapt to the students. Therefore, it seems that teachers reflect and implement new and flexible strategies based on this; because the method itself, the training they have had on it, has become their main tool of evidence.

The assistant has mentioned that they have not received extra training about inclusion. However, they have shown a willingness to self-train when necessary. This is described in more depth below. Nevertheless, given the evidence the method already has, it could be topic for further investigation to find out if more training is actually needed, and if it is, which kind of training should it be and which topics should it cover.

Thirdly, regarding *collaboration*, during interviews, the guide mentioned that they work in *collaboration* with the family. This depends on each child, but in general, they communicate with them to better adapt the environment and follow-up the progress of the child together with the family. The assistant, on the other side, described the collaboration present between teachers and between them and the staff of the school. This helps them to also follow-up the child but from a more pedagogical perspective, where they can discuss, for example, with the educational coordinator about the progress of their students. In fact, Guzmán (2023) also found that, in Montessori Pedagogy, teachers, the family and other professionals in the school work together to offer a more inclusive education.

Finally, regarding the *willingness to seek training, support and advice*, the guide mentioned readings, but also their own experience, as tools that have helped her to better address many issues that arise in class. She also pointed out that seeks advice from external professionals like therapeutic pedagogy or educational psychologists. The guide, on the other side, tells that she tends to investigate and search on the internet when she is seeking more information, however, she also attends meetings with the management team and psychologist of the school to seek more support and advice or even does some small courses as well.

Indeed, one of the essential characteristics of a Montessori teacher is the self-preparation they have (Montessori, 1949). In this pedagogy, training about the materials, the techniques and the practices implemented is crucial, but this is not enough. It is also important a self-preparation that helps them to free themselves from preconceived ideas, to be aware of the differences the students have, to consider them as enrichment instead of obstacles, and, in this way, being able to observe and adapt the environment (Montessori, 1949).

Hence, it is visible that the method is the base on which teachers implement and carry out their practice, they use the evidence gathered by Montessori (1949) since the beginning of her method. However, it is not strictly applied in the same way for everyone or everywhere. Thus, it needs the self-preparation of the teachers to adapt it to the needs of their students.

Therefore, the method is the basis on which an inclusive and flexible educational practice is built in a way that is open to all.

Furthermore, the presence of these conditions reveals that teachers in this environment can be considered as learning professionals according to Simons & Ruijters (2004). This, according to Georgiadi & Papazafiri (2025), is in turn crucial for students' inclusion. Professionals in this field require well-integrated knowledge that enables them to identify the challenges and implement a problem-solving approach; in this way, they will be able to respond with flexibility (Georgiadi & Papazafiri, 2025).

Simons & Ruijters (2004) describes three main activities of learning professionals: elaboration, expansion and externalization. These can be visible in teachers' practices of this classroom.

First, teachers are learning implicitly from and in their own experience with students in a Montessori environment. Indeed, one of the teachers explicitly stated: "the experience of working with children, with families... I think that, that it trains you a lot..." (Guide). This clearly reflects *elaboration*, that is, the first stage of a learning professional (Simons & Ruijters, 2004).

Then, learning is explicit and it can be done, for example, through readings: "... yes... readings that I have been able to do on my own..." (Guide) or searching information: "you investigate, search... in what way, to be able to help them..." (Assistant). In general, through seeking information from external resources: "well, whether it's both... in meetings with the

management team, mmm, psychologists... internet... doing small courses” (Assistant). This is comprised in the stage of *expansion* described by Simons & Ruijters (2004).

Finally, professionals connect their learning to practice and contribute to the development of the profession and the team, for example, by sharing knowledge: “... the fact of being guide and assistant in each environment, which allows us to share... everything that alerts us a little and look for a solution between the two” (Assistant). Thus, they *externalize* their knowledge, share it between them and put it into practice.

These conditions are strongly linked with professional development and learning which is essential for inclusive education (Georgiadi & Papazafiri, 2025; Simons & Ruijters, 2004).

In short, observation and interviews’ results are aligned. However, the latter helped to expand the findings which are, in turn, aligned with previous studies.

## 8 Conclusions

This thesis aimed to analyze how inclusive education is visible and implemented in a Montessori learning environment. To this end, exploring Montessori teachers' perspectives and approaches towards inclusive education in their classroom; observing inclusive education practices in this Montessori environment, and identifying inclusive education dimensions present in this Montessori classroom led to combine observations and interviews which showed how teachers' perceptions translate to classroom practices. Also, it was possible to see how the teachers' perception and classroom practices align with inclusive education dimensions suggested by authors such as Fernández-Blázquez et al. (2022). These results may provide valuable insights for more mainstream schools that have been, according to UNESCO (2020), struggling with inclusion.

Thus, five important dimensions of inclusive education: accessibility, participation, learning-teaching process, values and conditions were identified in this Montessori classroom. The first three were found by both interviews and observations. However, values and conditions were only seen in interviews results. This is due to the type of information collected by these two categories. Inclusive values and the conditions required by teachers to carry out this inclusion is difficult to detect by only observing. Therefore, the interviews were a good compliment.

In fact, as suggested above, contrary to studies such as Andrés (2024)'s, interviews in this research enabled to delve deeply in participations' responses so that five dimensions of inclusive education were identified. Also, focusing on a specific Montessori learning environment facilitated a holistic understanding of these inclusive dimensions in a Montessori context. Thus, this is an important contribution of this study. In addition, implementing both interviews and observations enabled to make connections and develop a more complete understanding of this topic. Finally, there was no restriction related to COVID-19 during data collection, therefore, there was no impediment related to this.

Regarding the five dimensions found, first, this Montessori environment has shown to be accessible for all their students. Observations and interviews allowed to find that the physical environment and the communication managed was accessible. It is an environment whose furniture and facilities are all within students' reach and it adapts to the students' needs. The communication managed in it is also accessible since teachers show flexibility to use the language or ways of communication that are better adapted to the interaction within the

classroom. However, regarding accessible physical environment, a barrier was also identified, it was observed that the classroom was located on the second floor. This is not under teachers' control but could be subject to further investigation.

Moreover, interviews enabled a deeper analysis of accessibility. Here, it was also found accessibility towards learning, social/cultural, and developmental diversity. That is, students with autism, ADHD, diverse nationalities, different ages, all of them were able to be altogether present in the same classroom. This was found in interviews results since traits like ADHD, nationalities, autism or even ages of the students are more difficult to detect by only observations. Therefore, interviews were a good complementing tool for this dimension as well. However, further observations after this analysis could provide more and interesting information, discussion and analysis.

Nevertheless, this environment not only facilitates the presence of diversity, it also allows and promotes participation in a way that is respectful and welcoming for all. This leads to the second dimension: participation. Through interviews and observations, it was found that participation in this Montessori environment involves all the members of the class and school, is concerned with responses to diversity, and is a never-ending process that needs constant revision and analysis. It also implies the active right of the students to join in, although it was also detected a lack of clarity on the part of teachers in differentiating between activities that allow for more active or passive participation by students. In spite of it, students are always allowed to participate in the activities occurring in the environment.

Additionally, participation in this environment is based on mutually respectful relationships. Supportive actions by students were observed and although aggressive behaviors were also observed, teachers' mediation for them too. The latter was not only observed, but also mentioned during interviews. Nonetheless, there were sometimes when aggressive behaviors were not noticed by the teachers and, thus, there was not mediation. This could be another aspect for further investigation. Still, it seems to be the need for greater detection of aggressive behaviors among students, especially during group and play time.

Moreover, participation in this environment was identified as being distanced from notions of SEN. This was found in interviews when teachers mentioned that there's no differentiation between students and that everyone benefits from the learning processes carried out in it. There were no specific observations that could fit in this category. However, the fact that no differentiation between students was visible confirms interviews' findings.

Thirdly, this environment showed to be flexible and adaptative to the learning diversity of the students. That is, the learning environment and the individualized attention given by the teachers enable embracing differences of the students, and thus, adapting the learning process to each of them. Interviews and observations confirmed this, although, interviews results broadened the analysis. For this dimension, a barrier was also identified: teachers' lack of time for a better implementation of inclusive education. Teachers tend to have many duties during their school day and this could hinder the implementation of a truly inclusive education. This was mentioned in the interviews and also observed. It is an aspect which needs attention. However, in general, teachers have achieved to provide their students with individualized attention and prepared environments that adapt to their needs.

Finally, this Montessori classroom showed to follow the necessary conditions and practices for an education to be considered inclusive. That is, teachers carry out reflection processes for adaptations of their strategies; they use the evidence Montessori has provided through her method for including everyone; they constantly cooperate with the family, with other teachers and professionals as a team; and, are willing to seek training, support and advice when necessary. All this praxis comprises the conditions for education to be truly inclusive.

This environment has also shown essential values that are related to inclusion. It promotes sense of belonging among the educational community; it welcomes diversity without making distinctions or segregating some students; therefore, it shows flexibility by teachers which helps not to leave anyone behind; and, finally, it also presents strategies for conflict resolution that helps students with their daily social interactions.

In this way, it is evident that teachers' perceptions and classroom practices align with inclusive education dimensions proposed by Fernández-Blázquez et al. (2022) and also to participation categories presented by Black-Hawkins (2010).

As mentioned above, conditions and values were identified in interviews results since the type of data collected is difficult to detect by the first observations of an environment. However, if more observations are implemented after the data analysis, it would provide even more information and deeper analysis. This could be considered as a limitation but also as lines for future research.

Thus, considering that inclusive education is characterized by accessibility, participation and learning-teaching processes open and welcoming for all, in addition to the conditions and

values it involves, this environment can be considered as implementing inclusive education in its daily practice.

Inclusive education involves essential values and attitudes that if shared in the whole community, facilitate inclusion for everyone. The environment in this study revealed the main characteristics of all these dimensions. Therefore, this environment, by implementing Montessori Pedagogy, is inclusive and can be considered as inclusive education. Additionally, it may provide valuable insights for other schools that might be struggling with inclusion.

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