

## What are the Planes of Development

In this paper we will discuss how both Montessori and Piaget classified the planes of development throughout childhood. We will discuss how the characteristics of a child differ within these planes and what implications these differences have on the educational environment.

Both theorists rose to fame in the 20<sup>th</sup> century with their groundbreaking research that focuses on the development of the child. Although from afar they seem quite similar, there are fundamental differences that set these two theories apart but also complement each other quite well.

Both Piaget and Montessori built their vision of developmental child psychology around a four plane system where children migrate from one to another as they travel birth towards maturity. Whilst it is easy to find similarities in their theories, it is also important to recognise that they also have their distinct differences. It is these differences that help teachers prepare teaching environments that cater for the whole child. The first crucial difference is that Piaget's planes stop at age 17, whereas Montessori's theory carries on until the age of 24, or as Montessori called it, 'The Plane of Maturity'.

Piaget's planes are based around and focus on the cognitive development of the child, discussing developments such as movement and the ability to perform operations. Montessori looked at the development of the *whole* child, catering for all aspects of the child's development. These being academic, moral, emotional and spiritual aspects of the child. Montessori was focused on enabling the child to become a truly global citizen. "Accustomed to the free will and judgement, illuminated by imagination and enthusiasm. Only such pupils can exercise rightly the duties of citizens in a civilised commonwealth." Montessori (1989, 1) It is this focus on the whole child and also the need to develop global citizens of the modern world that are the differences that set the two theorists apart.

Whilst mainstream education sees the development of a child as a linear process, both Piaget and Montessori saw this journey differently. They saw the journey as four separate stages (Planes). They both acknowledge that each of the stages are quite distinct and facilitate different aspects of development but those aspects differ depending on the theorist.

Montessori believed that as the child embarks on the journey from birth to maturity, he/she develops a personality, learns how to make choices, grows physically and socially whilst developing a moral conscience. She believed that with freedom to choose as they move through these planes, they would develop into independent, socially moral human beings and this would greatly impact on the way they grow alongside their peers. "For the most part, children like to solve their own social problems, and that adults cause harm by too early and frequent interference." Lillard.P (1972, 55) Montessori detailed her understanding of the four planes with such precision that as an educator or parent, it is very easy to determine the exact position of any child at any given time. This allows adults to understand how to facilitate a child's development with greater ease. One example of this could be to

alter a child's educational environment accordingly, so that their specific needs are met.

Montessori believed that each plane acted as a building block for the plane to follow. She believed that the stages had peaks and troughs where the child's development would be at its most important. This research was monumental and had huge implications for the ways in which teachers prepare their classrooms and teaching programs.

Similarly, Piaget deduced that yes, children will migrate towards maturity through several planes, but unlike Montessori's theory, Piaget understood that progress would be decided by cognitive development; that the child's brain changes as they grow and this allows them to see the world in different ways. He understood that as a child progresses, he/she will move from seeing themselves as the centre of the universe, to being part of a greater picture, or being able to understand that just because an object has been removed from sight doesn't mean that it no longer exists. His research allowed teachers and parents to understand how children saw the world, and therefore differentiate our practices accordingly.

To understand how the two theorists differ we will look at the two concurrent planes of development for both Piaget and Montessori and discuss how they compare.

Montessori's second plane of development, named 'Childhood', occurs between the ages of 6 and 12. During this stage the child is using the skills developed in the first plane to create intelligence and conscience. Children in this plane seek moral or social order. They use the foundations of *simple order* developed in the first plane and build upon it and start to understand right from wrong. Ultimately, developing a moral conscience. Montessori believed that during this plane, the child must be surrounded with strong role models. She understood that it was this plane that allowed children to build the moral conscience that would allow them to make a real difference in the world. She stated that the moral conscience a child develops in the 2<sup>nd</sup> plane will assist the child as they precariously navigate their way through their teenage years.

Piaget's third plane is named 'The Concrete Operational Stage' and is perfect to compare with Montessori's plane of Childhood because they both occur during similar stages of a child's life. (7 to 12 years of age) According to Piaget, this stage of development sees the thoughts of the child become more rational. Piaget stated that objects and thoughts are able to be manipulated and objects do not have to be present to be considered. The egocentric view of the world declines as the child starts to understand the bigger picture. With the child's new abstract view of the world, they are able to imagine scenarios and situations which may be far removed from their existence.

When we compare these two planes, we see a distinct difference in the way the two theorists understood the development of the child, but with striking links between the two. Whilst Piaget sees the child developing abstract thoughts and the emergence of the imagination, Montessori states that the child discovers a moral conscience. Both theorists surmise that the child loses his/her egocentric view of the world and see the world as an entity, where they are no longer the centre. This similarity between the two planes allows teachers to see that during this time of a child's

educational journey, we must allow the child to see his/her importance in the world by allowing them to hold cake stalls, raise money, make a real difference. Or to have a role and a responsibility within the classroom, for example; teaching a lesson somebody has missed. Eissler writes, “The act of teaching someone else completes the lesson already learned. During the teaching process we look at a problem or a routine or a skill from someone else’s vantage point.” (2009, 100)

At the same time as helping locally, we must allow children to reach out to the wider community or peer group. The child is now morally conscience and can imagine what people they have never met are going through, allowing them to make choices within the classroom that reflect these moral values. Montessori wrote “Such an attitude prepares the way for social life, it would be impossible to bring about such a result be keeping the children motionless, sitting side-by side.” (1991, 135) This re-enforces the value of the prepared environment and opens the opportunity for very powerful projects in class that will allow the child to develop a real sense of responsibility in the world and understand that they *can* make a difference.

As the child moves through these various planes, they change and develop. These characteristics allow educators and parents to make modifications and differentiate their pedagogy accordingly. The environment is designed and modified to match the **indivial** learning needs of each child and is the reason there are distinct differences between the cycle 1 and cycle 2 classrooms. A cycle 1 classroom is arranged so that children can be exposed to highly sensorial materials and equipment, where as a cycle 2 or 3 classroom will allow for discovery, self-reflection and investigation. These differences are only identifiable by looking at the whole child. By integrating the theories of both Piaget and Montessori, we have a deeper understanding of how to enhance the educational journey of the child.

*The following table is my understanding of the characteristics of a child as they move through Montessori’s planes of development, along with adaptations educators and parents may need to be aware of.*

Name of Plane	Age	Characteristics of Child	Teaching Implications
<b>Infancy</b>	0-6	<p>Unconsciously absorbing information turning into a conscious effort to understand the world around them. (Egocentric point of view)</p> <p>Organising their own body and its functions using skills such as talking, walking, spoken language, written language, maths.</p>	<p>To develop an environment rich in sensory information. Allowing the child to use his/her senses to understand the world around them. Later developing an environment where the child can seek information he/she chooses as he emerges as a conscious learner.</p>

<b>Childhood</b>	6-12	<p>Sees the world in a more abstract manner, develops a sense of imagination from a declining egocentric point of view.</p> <p>Develops a moral conscience. Can research subjects removed from their existence, such as historical contexts, future endeavors and the repercussions of actions carried out today.</p>	<p>To allow children to make a difference in the world. Raise money, do charity work, write to people they have never met.</p> <p>Allow abstract thoughts around creative writing, whilst asking the child to put themselves in the shoes of another. Applied questioning. (What would you do if you were in this situation?)</p>
<b>Adolescence</b>	12-18	<p>The child starts to see himself as an individual, separate from his parents.</p> <p>Strong social and moral conscience.</p> <p>Starting to have control over big decisions and the future path of his/her life. Relies on foundations of Plane 2 to engage with difficult decisions.</p>	<p>Allow children to engage with the community independently of the class/teacher.</p> <p>The educational journey needs to be rich in decision making that is real and present. The child must see the results of the decisions/choices that he or she makes.</p> <p>Their impact on the world through their actions will be obvious and tangible.</p>
<b>Maturity</b>	18-24	<p>Spiritual and moral independence is achieved. (Who am I and what do I have to give to the world?)</p> <p>Their experience will guide their future decisions.</p>	<p>Educators and leaders must allow students to discover. To try new things and fail. For it is these experiences that will allow the mature child to find who they really are.</p>

After considering the differences and similarities between Piaget and Montessori, we discover that, because they envisage the child's development and education as a pathway to maturity, they allow us to assist the child as he/she navigates his/her way along this route. Unlike mainstream education, the two philosophies combined allow us to look at the whole child from all perspectives. They allow us to understand the child as a person. Once we understand that the child has specific needs to develop both emotionally and spiritually, we can make adjustments to the environment to facilitate this learning potential.

### References

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