Four Planes of Development

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The Four Planes of Development, also referred to as The Seasons of Life, is a theory offering an overview of child development from birth to young adulthood. This view approaches children in a holistic manner, which means the child is viewed as a "whole," which contains many different dimensions. These dimensions include the social, emotional, intellectual, physical, and spiritual development of children. The four planes theory also incorporates the concept of the universality of all children. Universality refers to the fact that a child can be born into any culture in the world, assimilate that culture, and grow up as a living, interactive member of that culture, regardless of their heritage, ethnicity, race, or skin color. The cornerstone of the Montessori Method is observation. This theory is based on the direct observations of children in many parts of the world. Observations of children include the physical and psychological changes that children undergo during these planes, as well as when they transition from one plane to the next. We must bear in mind that these planes build upon each other. No plane may be skipped or simply averted; each one is a stepping stone to the next.

There are four planes that are recognized within the Montessori theory. The first plane occurs from birth to the age of six. It is referred to as the time of the Absorbent Mind. This plane is primarily concerned with the growth and transformation of the child. The second plane, which occurs from approximately age six to twelve, is referred to as the Reasoning Mind. Here the mind moves from the concrete to the abstract, and is also a period of stability.

The third plane parallels the first, as it is a time of physical and psychological transformation and change. The fourth plane, reaching from age 18 to 24, is another age of stability, containing a transition from adolescence to adulthood.

Within each plane, there are two sub-planes. The two sub-planes each consist of half of the plane that it resides in, meaning each sub-plane consists of three years. The first sub-planes all have in common the mental, physical, and spiritual changes that the person undergoes within each of the planes. The second sub-plane is a period of crystallization and conformation. Here the changes that have taken place in the first sub-plane are becoming a part of the child's schema through the process of accommodation, or the reorganization of the information that has been assimilated by the child.

There are certain characteristics that are inherent in all of the planes of development. The first three years of every plane is where many new cognitive, physical, psychological, emotional and spiritual developments occur. The second three years of each plane is when the crystallization of these developments takes place. At the beginning of each new plane of development there is a period marked by insecurity. Entering into a new plane is seen as a rebirth of the child, and therefore the child will experience some disorder and insecurity as they seek to establish order through their sense of inner and outer orientation. There may even be signs of nonconformity to the characteristics of the new plane of development as the child grows and transforms. If the first three planes have been assimilated properly by the child, then the fourth plane should occur without a great deal of difficulty. This is because the child will have a

strong sense of self, understand his likes and dislikes, and will be able to independently pursue whatever path they deem desirable.

The first plane has many characteristics that are needed for the proper development of the spiritual embryo. The first necessity is that of a proper environment. Montessori (2003) notes that "it is well known how our pedagogy considers the environment so important as to make it the central point of the whole pedagogical approach (p. 59). The environment must provide protections, security, order, and opportunities to build fact through the senses. The idea of protection is a basic, universal human need. If the children do not feel safe, or are indeed not safe, the environment will not allow the child to meets its full potential. Children also seek a sense of security from their environment. The ability to move about, explore and interact freely, without fear or angst is key to the development of the child in this stage. An orderly environment is also very important. Just as a disorderly environment may provoke intense, negative reactions, a well ordered environment will lead to the development of inner and outer orientation during a sensitive period of the child's development. "The child's sensibility to order has two simultaneous aspects, the outer, which concerns relations between the parts of his environment, the inner, which gives him a sense of the parts of his body, their movements, and position" (Montessori, 2003, p. 55). As stated, the outer orientation is the relationship between the child and his/her environment, where as the inner orientation is the relationship between the child's mind and body. These two orientations are driven by an environment that is well prepared, maintaining a strong sense of order. The child constructs himself through interactions with the environment that they live in. The child

interacts with the environment through the use of the senses, or sensory input acquired by exploring everything within his/her scope through touching, tasting, smelling, and hearing, and seeing the items within that environment. The adults present are considered to be a vital part of that environment.

Physical aspects of the absorbent mind are also occurring. The rapid development of the cerebellum is what enables the child to master crawling, standing, and walking. The nervous system also becomes completely developed during this stage, which will allow for maximum sensory input from the environment. Skeletal development continues, and the sense of equilibrium is established, enabling walking to take place. The child also develops the ability to grasp items with the hands. This prehensile ability is another key to the exploration of the child's environment.

The absorbent mind also has many mental aspects. The unconscious absorbent mind, horme and mneme are working together during the first sub-plane to construct the child. The horme is the force that drives the child to explore its environment. The mneme is what retains the impressions of the experiences the child has. The absorbent mind is busy taking in all of the interactions, and building the child's primary mind fabric. The infant constructs his/her own self out of the experiences created in the environment through sensorial exploration. The human tendencies of exploration, orientation, and communication are guided by the corresponding sensitive periods that nature gave to the child. The child also seeks independence, prompting the declaration "I do it!" This independence is both physical and cognitive, resulting in the mastery of movement and language. During this stage, the child is actively building their

intelligence, will and memory. The child is also developing an inner sense of the culture that is present in his/her environment. "The traits and beliefs of his race, all the things taken from the environment, taken from the people around him, are built up during this period. These things draw out his enthusiasm, and penetrate into his mind, his soul" (Montessori, 1994, Creative Development, p. 225). This cultural adaptation begins as the child observes the family that it is born into, and how the family speaks, moves, and behaves. Upon reaching the age of three, the child is entering into the period of the conscious absorbent mind. Montessori says, "He is preparing the mind to adapt, so he takes in everything which is presented to him without criticism, unlike the older child, who has begun to reason" (Montessori, 1994, Creative Development, p. 224). Those things that are presented to the child tend to be repeated, and so was born the freedom of the child to repeat any activity to satiation. The freedom to repeat activities is what leads the child to concentrate on the job at hand, and refine their skills by doing the same things over and over until they feel satisfied. The example of the girl continuing to do her work, even as her chair was lifted into the air, with her concentration falling solely on the work she was engaged in, demonstrates the power of repetition, as discussed by Montessori in The Secret of Childhood (2003, p. 124). During the second sub-plane, the mind engages in factual sensorial exploration. This creates knowledge, will and memory through activity and concentration, developed through repetition. This plane also maintains many behavioral or psychological aspects. The child needs to create a sense of inner and outer orientation. The child also needs to classify facts that are based in reality. This leads to the desire to do purposeful work, and involvement in family life. The activities the child

chooses to engage in involve the use of the hand to lead the mind to consciousness, intelligence, and concentration. Here the child is in love with life, and experiences joyful and effortless learning. Montessori says,

The absorbent mind is indeed a marvelous gift to humanity! By merely 'living' and without and conscious effort the individual absorbs from the environment even a complex cultural achievement like language. If this essential mental form existed in the adult, how much easier would our studies be! (Montessori, 1994, Formation of Man, p. 64.)

During this second sub-plane the child is making what was unconscious, conscious.

So, what are the educational implications? The child's environment must be ordered, protective, secure, and must present sensorial "keys" so that the child can construct him/herself through their sensory input. The environment must contain rich materials, create opportunities to explore freely and do work individually. The role of the adult is to understand the development of the child through knowledge of the unconscious powers of the child, understanding the sensitive periods of the child, and the special characteristics of this age. The adult must provide guidance and discipline, with the goal of creating self discipline within the child. The adult must also create an environment that will allow freedom, so that the child can explore freely and independently, without barriers or obstacles that may include the adult himself if he interferes with the child's efforts. The results will be the inner discipline of the child, social development, refinement of coordination of movement, language development.

vocabulary enrichment, syntax, mastery of written language during the corresponding sensitive period, and the acquisition of knowledge, memory, will, and independence.

There are also social implications to consider. The aim of all this is to become a member of the family or cultural group that the child was born into. This is the universality of children. They have the ability to construct themselves, and the sensory input that they assimilate and accommodate into their schemas is what allows that universality to exist. This is the gift of cognitive development.

The second plane of development, or the Reasoning mind, begins around age seven and extends to age twelve. Here the child has moved past the Absorbent Mind, and into a period of stability. Logic, imagination and reason combine to create the learning experience in this plane. The child has an insatiably inquisitive mind, and wants to know the how, when, where, and why of everything they encounter.

Several physical aspects mark the second plane of development. The child's round, baby like contours begin to disappear. The child loses his/her baby teeth, and develops adult sized teeth that "are absolutely out of proportion to the size of the head, so that he looks more like a horse than a child" (Montessori, 1994. Creative Development, p. 227). The child is physically stable, and experiences little sickness or mortality during this plane as well.

The second plane also has several mental aspects to consider. The child moves from concrete to abstract learning, uses his/her ability to reason, and only requires materials to assist the learning process in the initial phase of the activity. The child is in a period of great intellectual growth, and undergoes periods of research. They seek

answers to questions, especially the how, why, and when. During this plane, they engage in repetition as elaboration, which is intended to expand their understandings of the world. The child also grows an increasing sense of morality, which seems to follow sensitive periods for peer identity and the development on morality. Morality and the need for peer acceptance will create conflict within the child. The child's sense of morality has been formed by their experiences up to this point, the majority of which will have taken place within the community of the family. As the child seeks out relationships with others, many of those morals will be challenged, as different points of view and behaviors are experienced. Children from different families will have different values, so how does the child establish peer relationships and acceptance when their peers may have different beliefs about morality, life, and friendship? This is where the reasoning mind comes into effect. The child will seek out the sources of these differences, examine them, and determine what they believe to be correct through their ability to reason.

The second plane carries many psychological aspects of development with it as well. The child turns to the outside world to fill their quest for knowledge. Children at this stage become physically stronger, and tend to become adventurous and daring. Upon being injured, the child will shrug off an injury, and display their toughness to others, trying to avoid being babied. The child will feel a strong impulse to do important, real work. The child may become assertive and/or defiant if they are not left to their own devices. Moral exploration develops within the child a sense of justice and honesty. They begin to evaluate themselves, and become prone to hero worship. The child has great intellectual clarity and capability, allowing them to undertake great enterprises. The

child will also begin to function as a group member, as they navigate through the relationships they develop with their peers.

There are several educational implications to be considered in the second plane. The environment must provide dualistic experiences for the child. The inner environment should give the children the "keys" that they need to explore the universe that they live in. These "keys" should be in the form of factual and impressionistic information. The outer environment must provide the child with access to an outer social environment, where they may interact with their peers. The child should also become familiarized with public school curriculum and requirements, allowing for the child to transition into a role of responsibility. The environment is society and the outside world, not the limitations of the classroom. Getting out of the classroom is a very important part of the program during the second plane.

There are several social aspects that develop as a result of all this. The child forms a desire to enter society and work as a group member. They may form "gangs," allowing for the experimentation of society on a smaller scale, or micro-reality. Here the child will develop his/her own rules of behavior and a secret language maintained within that group of friends. He/she will continue to develop a sense of morality within the group that they have freely chosen to associate with, may seek to help society within their group, and will go through relevant exercises of practical life. The group will also function more as a whole, where the leaders and followers are not truly distinguished.

The third plane is marked by two sub-planes; puberty lasting from approximately age 12 to 15, and adolescence which is from about age 15 to 18. The third plane mirrors

the first plane, where the first three years are marked by much growth and transformation, and the last three years are marked by the crystallization of the mind. During this time of rapid physical and mental transformation, new discomfort is developed physically and emotionally. Here the child will seek a vocation, engage in service to humanity, and have idealistic beliefs about the world around them. Mentally, the child will experience a decrease in intellectual capacity, achieve a level of abstract intelligence, and achieve the ability to reason logically. This is a time of great upheaval for the child due to the vast amount of changes they are going through physically and mentally.

The educational implications of this stage revolve around four main issues. The first is that of the Erdkinder environment. The child will experience the idea of society's demands and structures, like farms, hostels, and stores. The second issue is that of the adult. At home the child seeks to have minimal rules. The adult acts like a live in teacher, and assists in the studies of society oriented issues. The adult will also need to practice the applications that construct their cultural identities. The third aspect deals with the results of financial independence, self confidence, adaptability, and a knowledge of one's own capabilities. The fourth aspect is that of social awareness. The child becomes socially aware, and consciously wants to contribute to their society. The child is sensitive to all facts and experiences related to his life as a social being, which includes the seeking of a vocation related to the service of humanity. These many aspects are the driving forces behind the immersion experiences undertaken by the Erdkinder students throughout the year.

The fourth and final plane occurs between the ages of 18 and 24. This is a time of finalized development. The child should show the normal health and strength that is associated with the human race. Mentally, the child will have developed a great capacity for work. Socially, the child, which is now a young adult will become a functioning member of society, with a vision that extends to all humanity. If the other planes have been navigated successfully, and the child has progressed at the pace of their needs and choosing, they will be prepared for their adult life. The goal of education in the Montessori Method is to be an aid for life, and these planes provide a framework to guide the child into personal fulfillment.



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