

## BENEMÉRITA UNIVERSIDAD AUTÓNOMA DE PUEBLA



#### **FACULTAD DE LENGUAS**

# A DIAGNOSIS IMPLEMENTING MONTESSORI PRINCIPLES INTO AN OFFICIAL KINDERGARTEN TO TEACH ENGLISH

THESIS TO OBTAIN THE DEGREE OF
LICENCIATURA EN LA ENSEÑANZA DEL INGLÉS

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#### **ABSTRACT**

In the last years education in Mexico had forgotten to include in school curriculum a second language that could improve the possibilities in children to compete with persons all around the world. Recently S.E.P. (Secretaría de Educación Pública) pedagogues have changed the high school curriculum and implemented a second language which objective was to teach English as a foreign language to a teenagers, but this really was not working because students needed a higher level at university. As the time passes by they realized that it was necessary to implement a second language since the beginning. That is how PRONI (PROgrama Nacional de Inglés) appears in 2017, with the aim to improve student's competences since kindergarten.

This research will show which the main deficiencies are while teaching kindergarten kids a foreign language, what teacher methods or techniques could be changed. These deficiencies will be identified through an observation that will be focused in three main areas; children development, classroom material and classroom environment, the researcher will work one day per grade in order to obtain the necessary information. The adequacies will be suggested according with what Montessori theory suggests as the best way children acquire knowledge naturally. It will be shown the suggested adequacies in order to give PRONI a different perspective that can make a difference in the teaching-learning process.

Furthermore it is important to say that external factors could be negatively involved in children learning process like; house education, emotional stability, socioeconomic level, school location, etc...

#### **CHAPTER I: INTRODUCTION**

#### 1.1 Introduction to the Problem

The idea of having an active learning are the main objectives for novice teachers, unfortunately, as time passes by, most of the experienced teachers lose interest and objectives as they are involved in the traditional and routinely schedule, consequently students seem to lose interest too because of the lack of motivation and excess of information, because this does not help in the children growing. Nowadays, the imposed rules and the unbreakable teaching methodology implemented by the new educational reform, force teachers to focus their teaching in program need's more than student's needs. Due to this current methodology from students that are in high school cannot understand essential English language rules as consequence it is very common to find students without motivation. The aim is to focuses students to connect their background knowledge into the new knowledge that they are acquiring, and also to form in each one the ability to reconstruct and reset their knowledge.

This diagnostic will be focused particularly in how to improve learning and interest in younger students so that in order to do the English learning process more enjoyable since the beginning. Teacher in Montessori Method is focused in let the children learn by their own (real situations) environment so that the knowledge they

acquire is helpful in their life and will achieve the Montessori aim which is to form an strong mind and body independent adult.

Active learning suggest to letting children learn according to their natural development through promoting collaborative work during class, involves individual work and/or reflection, but may also form confident children. This may be the basis for the suggested implementation of Montessori theories that could help young students to develop self-esteem, self-confidence and self-motivation through giving the child freedom to act in the environment he/she is but at the same time give the child responsibility and limits, but it is also focused in how teacher could adapt part of their teaching methods. Human being starts indepence since the day they are born, Montessori believed that in order to be free been independent is the clue. Children She said that learning to be independent came before freedom. This does not mean give them freedom whithout limits, indepence needs to be fostered in order to lead the child a sense of freedom and self-esteem.

Teachers need to re-construct their knowledge in order to focus in the principal aim of the education, the construction of an adult, the child (Montessori, 1949, p.227). Montessori (1949) believed that the children learn only if they are free, if they feel save and by instinct, it means that they learn by exploring their environment; touching, hearing, feeling, smelling, tasting are just ones of the many ways they learn. This research is focused in proposing an implementation of Montessori theories in an official kindergarten school by adapting the current method to the school resources and student necessities, in order to have a positive

first contact with students. The importance of focus in the first stage of growing of the child is because at this stage the child constructs the most important knowledge, the basis that will construct the adult, and society must be aware of this important phase.

At this level there is a great process of teaching-learning, because in one hand teachers know how to adapt and control the first student-school contact, in the other hand children tend to adapt too quickly to any situation and they learn everything quite easily. But there are still some wrong concepts that need to be changed from public schools like to label good and bad students, and also minimize children's feelings and interests.

PRONI (Programa Nacional de Inglés) is a recent incorporated program into Direccion General de Desarrollo Curricular that has as main objective, ensure the quality of the knowledge in basic education and strengthen the teaching and learning process of a foreign language (English) in public schools. It is true that PRONI has a new curriculum to teach English to young children in kinder garden, with the objective of catching student's attention, and to create environments so that children can learn easier and become English speaker.

Montessori Method is an option to be implemented into PRONI program by changing parts of this program and including theories of this method that will be implemented in this research in order to demonstrate if Montessori Method could be a way to change positively the way our children learn.

#### 1.2 Purpose

This research project has the following purpose:

 To make a diagnosis into an official public kindergarten in order to observe and analyze what Montessori principles could be implemented.

#### 1.3 Objective

To suggest which Montessori principles could be implemented into an official kindergarten curriculum.

#### 1.4 Research Question

- How Montessori principles would be adapt into an official kindergarten in order to encourage nature children learning?
- What significant changes would the official kindergarten curriculum have to change in order to adequate Montessori Method?

#### 1.5 Significance of the Study

This study is mainly focused on knowing what factors are delaying the English learning process in kindergarten children, in order to bring forward and use effective strategies that allows increase the students learning level while they are at this school level.

A fair diagnosis knowing the biggest weaknesses of public education since preschool will help to find the ideal techniques for children to learn a second language in a natural, safe and freeway. Some of the techniques are currently applied, preschool teachers allow children to play and to learn from their own experiences.

Implementing new techniques in public schools might be difficult, unless it can be proved to Secretaría de Educación Pública (SEP), that they, actually will work, otherwise the only choice left is to independently implement the method in your own class. Montessori Method was created under-resourced and implemented in a poor area full of people with low resources. This background will give teachers a good first impression, letting them know that most important part of this method is to teach children to find their own way of learning, to dominate their behavior and their feelings and to learn how to integrate positively into a community.

PRONI is focused on teaching children the best way they could learn, making artificial environments to simulate the real situations the student could find outside

the school. The new teaching reform focuses all coordinator's and teacher's attention on the student school needs.

In Montessori Method children are free to choose how they acquire their knowledge, material is able for them all the time, and they learn to respect other activities and space, to keep the environment clean a safe.

Teachers have to implement new methods to teach, they have to be in a constant renewal of knowledge. To mixed different programs, methods or theories all with the objective of letting children the way nature's demands.

#### 1.6 Key Terms

The next words are important for a better understanding, because they will be used in the next chapters of this project.

**Method:** a planned way of doing something, especially one that a lot of people know about and use: traditional teaching methods. 2 formal, a well-organized and well-planned way of doing something 3 there's method in/to somebody's madness used to say that even though someone seems to be behaving strangely, there is a sensible reason for what they are doing. (Longmang Dictionary of Contemporary English, the living dictionary, 2003, p. 1035)

**Active learning**: an educational approach in which students are encouraged to engage with activities, such as experimentation, group discussion, and role-play. (Oxford, Oxford dictionaries, n.d.)

**Teach**: 1 to give someone knowledge or to instruct or train someone 2 US teach school to be a teacher in a school. (Cambridge Advanced Learners Dictionary, 2003, p. 1308)

**Teaching**: the work or profession of a teacher

**Learning**: the process of gaining knowledge and experience, for example by studying. It is the knowledge that someone has gained, especially by studying.

**Diagnostic**: a judgment about what a particular illness or problem is, made after making an examination. (Cambridge Advanced Learners Dictionary, 2003, p. 336)

**Autonomous**: An autonomous state, region, or organization is independent an has the power to govern itself: INDEPENDENT 2; having the ability to work and make decisions by yourself without any help from anyone else. (MacMillan, 2002, p. 78)

**Self-esteem**: the feeling of being satisfied with your own abilities and that you deserve to be liked or respected. (English, 2003, p. 1488)

**Self-confidence**: sure that you can do things well, that people like you, etc. (English, 2003, p. 1488)

**Self-motivation**: motivated to do or achieve something because of one's own enthusiasm or interest, without needing pressure from others (Oxford, Oxford Dictionaries, n.d.)

**Didactic**: intended to teach, especially in a way that is too determined r eager, and often fixed and unwilling to change. (Cambridge Advanced Learners Dictionary, 2003, p. 338)

#### **CHAPTER II: LITERATURE REVIEW**

This chapter presents the theory in which the investigation is based on, strategies and examples were analyzed in order to explain what this research is focus on. Firstly, it is defined what active learning refers to, after what authors support this theory and how they recommend to work with it. Finally, Montessori Method will be described.

#### 2.1 English Language Teaching in México

Since 1920 Mexico set up include the teaching of English within high school curriculum, going through its obligatory official incorporation through "acuerdo 177" which establish a new curriculum for high school, published in "DOF" (Diario Oficial de la Federacion) on June 4<sup>th</sup> 1993. (DOF,28/12/2016). It has as objective to give support to federatives entities and to improve the learning of a second language in students since basic education.

When reforming (2013) high school education through "acuerdo 384" in which the new plan and programs of high school curriculum were established they were published in "DOF" (Documento Oficial de la Federacion), English subject also make it inside the curriculum, it describes which are the students development aim level when learning a second language. Which was establish as level A2 according

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to Common European Framework of Reference for languages (CEFR), which is the international reference inescapable for learning foreign languages terms. (DOF,28/12/2016)

The National English Program in Basic Education, NEPBE starts in school year 2009- 2010 with a first testing stage of pilot test in federal entities since 3<sup>rd</sup> grade of preschool to 6<sup>th</sup> grade of primary school. (DOF, 28/12/2016). This strategy focuses the method itself in teaching the younger because at this age children are in an absorbent stage (Montessori, 1949); this means that is in this period that not only the construction of human but of the knowledge takes place. Teachers need to help children to create their own knowledge and they must be prepared and ready to conduct them in order to achieve the educative reform aims.

Since that, teacher is the main or even in certain schools is the only person who knows English he or she must be a competitive user and a critic and an informed agent. "The judgment to improve education quality must be applied to teachers preparation, studying programs actualization and its contents, pedagogical approaches, teaching methods, teaching tools" (SEP, 2017, p.11)

As it seems, the new educational reform has as objective, to place Mexican education into international standards by making changes in the English curriculum reviewed by the Cambridge University for the "4 Ciclos De Niveles De Dominio Y Competencia". This new curriculum also misses one of the components of the

process of learning, the furniture and classroom conditions and students' necessities not only inside but outside the school.

#### **2.1.1 PRONI**

The Secretaría de Educación Pública has started the Programa Nacional de Inglés (PRONI), This program includes both primary and secondary levels, designed from the national and international standards, but also the determination of teacher development; which says that the teacher besides being an expert in English language he must have a solid knowledge of children and teenager development so that he can understand their necessities, interests and abilities (SEP, 2017, p. 273), as well as the implementation of the requirements to design, plan and evaluate the educative materials that keeps the social functions of the language practice and that allows the curriculum articulation as well as many opportunities to take part of it.

English teaching had been implemented since 1926 in high school but before PRONI, 21 entities begin to teach English in primary school. PRONI aims a structural change in pedagogy aspects.

- It begins at the edge of 5 years old, based on psycholinguistics studies.
   (OCDE 8.7 years old)
- Curricular proposal, international standards alignment. (MCER)
- At the end of each cycle, student has to have international and national achievements.
- Teacher must be specialized according to internationals and nationals standards.

It also raises paradigmatic changes in English curriculum according to:

- Social environment of learning
- Communicative activities

PRONI is based on the following program;

FIGURE 1. CICLO 1. NIVELES DE DOMINIO Y COMPETENCIA, APRENDIZAJES CLAVE PARA LA EDUCACIÓN INTEGRAL, (2017)

LENGUA EXTRANJERA, INGLÉS, PREESCO LAR. 3°					
AMBIENTES SOCIALES DE APRENDIZAJE	Actividad com unicativa	Práctica social del lenguaje	Aprendizajes esperados		
FAMILIAR Y COMUNITARIO	Intercambios asociados a pro pósito s específicos	Explora y reacciona ante expresiones de saludo, cortesia y despedida.	Participa en la exploración de expresiones de saludo, cortesia y despedida. Reconoce palabras y expresiones. Participa en intercambios orales para saludar, despedirse y most rar cortesia. Distingue la escritura de algunas expresiones.		
	Intercambios asociados a medios de comunicación	Explora señalizaciones de la vía pública.	Participa en la exploración de señalizaciones.     Realiza acciones para seguir señalizaciones.     Participa en la elaboración de señalamientos para el salón.		
	Intercambios asociados a información de uno mismo y de otros	Identifica información sobre el aspecto físico.	Participa en la exploración de preguntas sobre partes del cuerpo.     Reconoce partes del cuerpo por su nombre.     Compara y completa nombres escritos de partes del cuerpo		
	Intercambios asociados al entorno	Reconoce información sobre objetos del hogar.	- Explora información en materiales il ustrados Escucha y participa en la lectura de nombres Comparte información Explora la escritura de palabras.		
Expresión  Comprensi	Expresión literaria	Escucha rimas y/o cuentos en verso.	Explora rimas o cuentos en verso.     Escucha la lectura o recitación de rimas o cuentos en verso.     Completa en un texto palabras que riman.     Practica la pronunciación de palabras que riman.		
	Expresión lúdica	Descubre palabras en una canción infantil.	Explora canciones.     Participa en la entonación de canciones.     Sigue la lectura.		
	Comprensión del yo y del otro	Escucha cuentos para asociarlos con sentimientos.	- Explora libros de cuentos Escucha y sigue la lectura de cuentos Reconoce la escritura de nombres de estados de ánimo Reconoce la escritura de nombres de estados de ánimo Reconoce la escritura de nombres de estados de ánimo.		
ACADÉMICO Y DE FORMACIÓN	Interpretación y seguimiento de instrucciones	Sigue los pasos de una receta.	- Explora y reconoce recetas Escucha la lectura de una receta Practica la pronunciación de palabras.		
	Búsqueda y selección de información	Entiende preguntas para identificar información sobre objetos en el aula	Explora y escucha preguntas.     Participa en la formulación de preguntas.     Revisa la escritura.		
	Tratamiento de la información	Reconoce información sobre flora y fauna mexicanas en obras ilustradas.	Explora un tema del mundo natural mexicano en materiales ilustrados.     Explora la escritura de nombres.		

(SEP, 2017, p. 280)

PRONI considers two main curriculum organizers: first, ambientes sociales de aprendizaje (Social environment of learning) which is focused in promote inside of the classroom the social uses of English language through intentionally constructed environments to compensate the absence of the language outside the school and gives the opportunities to learn different communicative formats, which in turn contribute to generate the conditions to learn a foreign language. Second, actividades comunicativas (communicative activities), that looks for social practice of the language to be equilibrate and to has a contextual belonging and responds

to the domain and competence levels of the foreign language stablished for each cycle. (SEP, 2017, pp. 274,275). As illustrated in image 1, this program looks for a Pre A1 to A1.1 of MCER in cycle 1 (from 3<sup>rd</sup> grade of kindergarten to 2<sup>nd</sup> grade of primary school) by introducing English to children by short tales, songs, greetings, vocabulary, etc. At the end of 3<sup>rd</sup> grade of kindergarten the student will be able to understand basic vocabulary (body parts, house objects, family members, fruit and animal names, colors, numbers, alphabet, etc.), answer simples questions, greeting, sing and follow simple recipes.

#### 2.2 Active Learning

Active learning is based on a theory called constructivism. Constructivism emphasizes the fact that learners construct or build their own understanding. Constructivists argue that learning is a process of 'making meaning'. (Cambridge Assessment, 2013). Constructivism is a learning theory which explains how people acquire knowledge. This learning theory also suggests that humans construct knowledge from their experiences.

Thus, active learning is a whole process that makes the learner be the center of process, the student learns by doing based on the previous knowledge. Active learning helps learners to develop their self steem and confidence and

responsibility for their own learning. It addresses three learning domains: knowledge, skills and attitude.

It is now widely accepted that learning environments emphasizing student engagement tend to produce better prepared students than "traditional" courses, in which information is passed to students through lectures [Hake, 1998]. In the physics community, active-learner methods are frequently referred to as "interactive-engagement (IE)" methods, a term coined by Richard Hake. (Gregor, Evelyn, Andre & Wolfgang, 1999)

Active learning is focused on students' interaction, inside and outside the classroom. Students share their own experiences and they learn about them, active learning occurs when children are keen to learn and are interested in finding things out for themselves. When children engage with people, materials, objects, ideas or events, they test things out and solve problems. They need adults to challenge and extend their thinking. Teachers have to be mentally and physically engaged in learning, children need to feel at ease, secure, and confident, because when children are actively involved in learning they gain a sense of satisfaction from their explorations and investigations.

There are many reasons why students are not learning as much or as well as we believe they should. Our purpose here is not to divide blame among students, faculty, and institutions. Rather, it is to improve the situation. We identify the primary underlying problem with those students who are not engaged with a course

of study. For whatever reason, they are pursuing a passing grade rather than knowledge or ability. (Gregor, Evelyn, Andre & Wolfgang, 1999)

Professor who successfully integrates writing and critical thinking tasks into their courses often report a satisfying increase in their teaching pleasure: class discussions are richer, students are more fully engaged in their learning, and the quality of their performance improves. (Bean, 1996)

The teacher role in this process is very important, because she/he is the student's guide in their learning process, and also who guides each student for their knowledge process. "The teacher presents student with critical thinking problems, gives students supervised practice at solving them, and coaches their performance through encouragement, modeling, helpful intervention and advice, and critiquing of their performance." (Bean, 1996, p. 121)

Active learning involves significant learning, because both suppose a change in student mind, and this can only be produced through: analysis, understanding, work, assimilation and information learned in an active way for the student.

Learners develop their existing knowledge and understanding in order to achieve deeper levels of understanding. This means that learners are more able to analyze, evaluate and synthesize ideas (thus achieving the higher order skills of Bloom's Taxonomy). Skilled teacher make these deeper levels of understanding more possible by providing learning environments, opportunities, interactions, tasks and instruction that foster deep learning. ...skilled teachers scaffold learning by

providing guidance and support that challenges students based on their current ability. This helps students to develop their understanding in stages. (Cambridge Assessment, 2013)

#### 2.3 John Dewey

John Dewey said that the traditional scheme is, in essence, one of imposition from above and from outside, because it imposes adult's standards and inadequate methods for those that are growing slowly toward what the adult's maturity say. The methods that are use are beyond the reach of the experience the young learners already have. After this free learning, they must be imposed: even though good teachers will use devices of art to cover up the imposition so as to relieve it of obvious brutal features. But the gulf between the adults experience and children experience, the ability is very wild so that the learning/teaching situation forbids much active participation by children. (Dewey, 1916)

Dewey (1940) defines the process of learning as the acquisition of what already is incorporated in books and in the heads of the preschoolers. In a few words that what is taught, is thought of as essentially static, it is taught as a finished product, with little regard either to the ways in which it was originally built up or to changes that will surely occur in the future.

All principles by the children are abstract. They become concrete only in the consequences which result from their application, everything depends upon the interpretation given them as they are put into practice in the school and the home, and is at this point when the reference made earlier to earlier or philosophies becomes particularly pertinent. (Dewey, 1916)

The practice of traditional education sets a new type of difficult educational problem for those who believe in the new type of education. The new teachers have a huge problem, when they start their programs, because students or the coordinators think that that new methods do not work, they do not trust in new educational methods.

There is one permanent frame of reference: namely, the organic connection between education and personal experience. The belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative because it is important to mention that experience and education cannot be directly equated to each other. The need of forming a theory based on experience in order that education may be intelligently conducted upon the basis of experience.

Dewey (1938) says that, it is often well in considering educational problem to get a start by temporarily ignoring the school and thinking of other human situations because, the methods are not focused just in the school but in the student learning also.

The only freedom that is of enduring importance is freedom of intelligence, that is to say, freedom of observation and of judgement exercised in behalf of purposes that are intrinsically worthwhile. (Dewey, 1938)

Education must be focused in all children stages of development always letting them choose the way they decide to learn, so that the curriculum needs to be focused on real situations, and real activities "Dewey believed that the children learn best when they interact with other people, working both alone and cooperatively with peers and adults (...) Dewey thought that curriculum should grow out of real home, work and other life situations." (Garhart, 2000, p. 5)

Children at recess of after school play games, from tang and one-old-cat to baseball and football. The games involve rules, and these rules order their conduct. The games do not go on haphazardly or by a succession of improvisations. Without rules there is no game. If disputes arise there is an umpire to appeal to, or discussion and a kind of arbitration are means to a decision; otherwise the game is broken up and comes to an end. Activities inside and outside the classroom have to be real so that a significance learning could be achieved (Dewey, 1897)

Dewey (1930) says that confidence have to born from the base of knowledge that the teacher applies to the classroom situation. He believes that when children are concentrated in their activities learning is fun and exciting. Dewey insisted that

education and experience are related but they are not the same and that some experiences are not educational at all.

#### 2.4 Jean Piaget

Jean Piaget (1935) on child development and educational psychology textbooks often take as the starting point for discussing cognitive development (e.g. Ormrod, 2003). Piaget, Pedagogy, and Evolutionary Psychology .This is a very reasonable tack because Piaget, shaped our understanding of how children's cognition changes in predictable ways. He believed that children are able to solve certain problems only at certain ages and that these problems can be organized into a developmental sequence that defines discrete stages of cognitive development. (Hoffman, 1982). This is because the human construct their own knowledge according to the situations they live, they take old experiences in order to solve current problems. This means that knowledge is always been constructed. Piaget claim that children construct their own knowledge by giving meaning to the people, places, and things in their world. He was fond of the expression "construction is superior to instruction" (Hendrick, 1992). By this he meant that children learn best when they are actually doing the work themselves and creating their own understanding of what's going on, instead of being given explanations by

adults. (Garhart, 2000) Piaget was a student of Montessori's method and built on

him the idea that active work and real experiences were important to children's cognitive development. Like Montessori, Piaget believed that children needed every possible opportunity to do things for themselves and that this was real learning to them.

Piaget (1934) said that a child's ability to control where and how he looks at things is itself determined by his stage of development. Piaget's theory is a remaining, that young children are logically incapable of seeing the world as adults do. Any attempt to 'teach' them by demonstrating how things work is bound to fail if children do not possess the necessary mental operations to make sense, in logical terms, of what they are experimenting.

Children actively "construct" their knowledge of the world. Piaget accepts that social experiences and inter-personal behavior are an important part of the development they play a rather limited and secondary role in this theory. Children construct their own language by acting upon objects in space and time. Children knowledge is often a product of the joint construction

As illustrated in image 2.1, Piaget had the idea that children pass through stages of development, and the assertion that they cannot learn or be taught how to function at higher levels before they have passed through the lowers ones. He holds that all children pass through a series of stages before they construct the ability to perceive reason and understand in mature, rational terms

When the child learns a language, for example, he does not simply discover labels to describe and remember significant objects or features of his social and physical environment but ways of constructing the world.

Piaget's Cognitive Development stages (1976) begins from birth to 18 months babies passes through sensorimotor stage, in this stage the babies learn through senses, reflexes and begin to manipulate material. From 18 months to 6 years toddlers passes through the preoperational stage according to Piaget at this stage they will be able to form ideas based on their perceptions, they can focus on a variable at a time, also toddlers will overgeneralize based on their limited experience. From 6 years to 12 years children will pass through concrete operational stage in which they will be able to form ideas based on reasoning but also they will have limit thinking to objects and familiar events. The last stage begins at 12 years, in the formal operational stage they will finally think conceptually and hypothetically.

Piaget (1976) gave many examples of babies' activities; play, imitation and problem-solution provide a concrete sense of the way in which he charted the beginnings of a transition from physical to mental activity. Initially the new born movements are reflex responses to internal and external simulation. The toddler may grasp a finger placed in his palm, respond to a light touch on the cheek by 'rooting' around, or blink in response to a puff of air. At the beginning babies do not anticipate the impact of such simulations, even when, so to speak, they can see

them coming. With the experience, however, the infant starts to discover some of the predictable patterns in his experience.

Piaget believed that in the beginning, babies' reactions to the world are purely reflexive (without thought). Babies react to movement, they initially observe and then do, we need to put babies into correct environment so that they can start the process of responding the stimulation the environment gives them. "Piaget said that intelligence began when the reactions became purposeful. For example, when we watch an infant lying below a crib gym, we notice that initially he shows a startled response if his hand or foot hits a bell or rattle, but that over time he hits the bell on purpose." Piaget refers to this cognitive development stage sensorimotor stage. (Garhart, 2000, p. 64)

The preoperational stage operations at begins about age two to age 12when they start to talk and it finishes approximately at age seven, is when children's thinking differs most from adult thought patterns. Piaget (Garhart, 2000) said that during the preoperational stage, it is develop memory and imagination, children are egocentric (think of everything only as it relates to them), can focus on only on characteristic of a thing or a person at a time (for example, Take words at their exact meaning), gather information from what they are told, and overgeneralize from their experience.

When children enter Piaget's stage of concrete operations at about age six when they start to demonstrate logical and concrete reasoning and if finishes approximately age 12, at this stage many changes in their thought patterns are visible, children's thinking becomes less egocentric and also increase external stimulation. "At this age (usually from about seven through eleven or twelve) children possess the characteristic of reversibility, which allows them to reverse the direction of their thought." (Garhart, 2000, p. 78)

The last stage, formal operational, begins age twelve and older. At this stage children reach intelllectual development, they are able to logically use symbols related to abstrac concepts (mathematics and science), formulate hypotheses and consider possibilities. They also can geive meaning to abstract relationships and concepts like justice.

#### 2.5 Lev Vygotsky

Vygotsky ideas were and continue to be controversial. Because he came to the field without specific training in psychology and development, he brought a fresh perspective to child study. He believes that social interaction were fundamental to develop cognition. (Vygotsky, 1978) "He objected to the analysis of children's abilities based on intelligence tests. He thought research should be both qualitative and quantitative. By this he meant that careful observation of children should be considered as valid as their scores on a test." (Garhart, 2000, p. 82)

Vygotsky believes that "thought is internalized action" (1978) the analysis of human knowledge and intelligence must being with a consideration of motor activity and practical problem-solving. It also alerts us to one of his important educational messages which is that children have to be active and constructive in order to develop their understanding of the world.

Vygotsky shares some important areas of agreement with Piagetian theory particularly an emphasis on activity as the basis of learning and for the development of thinking.

Vygotsky (1978) theorizing about the influence of the culture on mind was not limited to claims about the rule of social interaction. Cultural 'tools' or, in Bruner terms, cultural 'amplifiers' also exert a formative influence on human cognition. Furth more, access to, and skills in using, such tools is made possible for the developing child thought observations of and interactions with those who are masters of their use.

When children learn how to read, and how to make use of mathematical symbols, they acquire new ways of thinking as they master and internalize activities needed to work upon and exploit these new mental tools.

Social interaction plays a fundamental role in the process of cognitive development. In contrast to Jean Piaget's understanding of child development (in which development necessarily precedes learning), Vygotsky felt social learning precedes development. He states: "Every function in the child's cultural

development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological)." (Vygotsky, 1978).

Vygotsky focused on the connections between people and the sociocultural context in which they act and interact in shared experiences (Crawford, 1996). According to Vygotsky, humans use tools that develop from a culture, such as speech and writing, to mediate their social environments. Initially children develop these tools to serve solely as social functions, ways to communicate needs. Vygotsky believed that the internalization of these tools led to higher thinking skills.

Vygotsky's theory promotes learning contexts in which students play an active role in learning. Roles of the teacher and student are therefore shifted, as a teacher should collaborate with his or her students in order to help facilitate meaning construction in students. Learning therefore becomes a reciprocal experience for the students and teacher.

These authors are all connected because they believed in the natural way of children learning, they believed that children learn through their environment, real experiences. They also believed that active learning promotes interaction, problem solving and reflection.

#### 2.6 Maria Montessori

Dr. Montessori was a true pioneer of theories in early childhood education. She was a physician, educator, scientific, psychiatrist, philosopher, anthropologist and feminist, the first woman to qualify in Italy as a doctor of medicine; she became increasingly interested in children's needs. By 1900 she becomes Professor of Pedagogy at the University of Rome. She began to get interested in children education and she started to conceptualize her own method, which she tested through hands-on scientific observation, in which she had success. Her early work centered on women's rights and social reform and evolved to encompass a totally innovative approach to education. Her success in Italy led to international recognition, and for over 40 years she travelled all over the world, lecturing, writing and establishing training programs. In later years, "Educate for Peace" became a guiding principle which underpinned her work.

Maria's early medical practice focused on psychiatry. She also developed an interest in education, attending classes on pedagogy and immersing herself in educational theory. Her studies led her to observe, and call into question, the prevailing methods of teaching children with intellectual and developmental disabilities.

The opportunity to improve on these methods came in 1900, when she was appointed co-director of a new training institute for special education teachers.

Maria approached the task scientifically, carefully observing and experimenting to learn which teaching methods worked best. Many of the children made unexpected gains, and the program was proclaimed a success.

"In 1907 Maria accepted a new challenge to open a childcare center in a poor inner-city district. This became the first Casa dei Bambini, a quality learning environment for young children. The youngsters were unruly at first, but soon showed great interest in working with puzzles, learning to prepare meals, and manipulating materials that held lessons in math. She observed how they absorbed knowledge from their surroundings, essentially teaching themselves". (Society, 2018)

The Montessori Method was widely acclaimed and accepted. It was soon imitated, often by well-meaning people who did not have the time or the opportunity to study the system in depth. Dr. Montessori focused their method in inclusive education, trying to adapt school for all kinds of children. She believed that any children must be outcast from education.

#### 2.6.1 Montessori Method and the Human Development Stages

"In modern times the psychic life in the new-born child has called forth great interest. Many scientist and psychologists have made observations of children from 3 hours to the 5<sup>th</sup> day from birth. Others, after having studied children carefully,

have come to the conclusion that the first two years are the most important of life." (Montessori, 1949, p. 4). It is for this reason that education during this period must be intended as a help to the development of the human individual.

Maria Montessori proved that during the first's months of life is when the child has the greatest development and therefore it is the stage in which the greatest care should be taken (Montessori 1949). "Is this is done, then the child does not become a burden; he will reveal himself as the greatest marvel of nature." (Montessori, 1949, p. 7)

Montessori Method works with three periods:

According to the modern psychologists who have followed children from birth to university age, there are in the course of development different and distinct periods. (...) Today psychology recognizes that there are different types of psyche and different types of mind at different periods of life.

The first of these periods goes from birth to six years. This period shows notable differences, but during its whole length the type of mind is the same. From zero to 6 the period shows two distinct sub-phases. The first from zero to 3 years shows a type of mentality which is unapproachable by the adult, then there is another sub-phase from 3 to 6 in which the type of mind is the same, but the child begins to become approachable in a special manner. This period is characterized by the great transformations that take place in the individual. (...) the fact is that at 6 years

the individual becomes, according to the usual expression, intelligent enough to be admitted to school. (Montessori, 1949)

The next period is from 6 to 12 years. This period is on of growth, but without transformations. It is a period of calm and serenity. It is also psychically speaking a period of health and strength and security. Now if we look at the physical body, we see sings that seem to mark the limit between these two psychic periods." (Montessori, 1949, p. 17)

Then there is the third period which goes from 12 to 18 years, (Montessori, 1949) which is also a period of such transformation that it reminds us of the first period. This last period can also be sub-divided into two sub-phases, one that extends from 12 to 15 and one from 15 to 18. This period is also distinguished physically by transformations in the body which achieves maturity. After 18 man is consider completely developed and there is no longer any considerable transformation. Man merely becomes older.

To be mentally and physically engaged in learning, children need to feel at ease, secure, and confident. Active learning occurs when children are keen to learn and are interested in finding things out for themselves. When children are actively involved in learning they gain a sense of satisfaction from their explorations and investigations. When children engage with people, materials, objects, ideas or events, they test things out and solve problems. They need adults to challenge and

extend their thinking. Children have to be helped to lay that foundation in the following ways:

Montessori activities are designed to be purposeful work – tasks with a goal that is tangible to the children, with concrete results. They can see how their friends are drinking out of cups they washed, can see how the flowers they arranged are brightening up the class, the plant they watered is flourishing. Their efforts are meaningful, and experiencing this also builds confidence. Children experience being able to make a contribution to their community, they have a strong sense of belonging, and a feeling of being valued. They are at ease and sure of themselves. As a result, they are happy to interact and to collaborate in efforts.

#### 2.6.2 Sensorial Material

Dr. Montessori developed many educational activities and tools for the little children to use. For example she had fabric with buttons fastened on one side and button holes on the other side so that the little children could practice buttoning. All the teaching was done through action, not words. She also designed a variety of didactic materials for the children to work with and get themselves prepared for writing and arithmetic. Montessori believed that (Schilling, 2011) all senses should be trained and utilized. She designed a variety of activities for each of the senses.

In order to develop fine sensitivity in their fingertips she had the children touch a variety of materials such as linen, cotton, velvet, and silk.

In Montessori teacher-training courses, teachers learn the objective of the material, they learn to introduce it to the children, and the theory underlying them. Within this sequencing of precise lessons with specific materials, children in Montessori programs can choose freely what to do, so it is at this level that Montessori education seems so unstructured. But embedded even here, within that free choice, the work itself remains tightly structured. Free play often includes elements of make-believe and also often involves peers. Guided play occurs when an adult aims a child towards specific knowledge in a playful, fun, and relaxed way.

The fact that these child-sized tools really work is also part of Montessori's educational philosophy. She thought children needed real tools if they were to do the real work that interested them so. In most of the preschools (Cooney, 2011) children are often expected to cut paper with scissors that aren't sharp our cut vegetables with butter knives so they won't be hurt. Unfortunately, these dull tools also make these simple tasks very difficult, and in some cases more dangerous than if children used sharp tools properly learn to use tools safely, and that giving them tools that didn't really work undermined their competence. Montessori stressed the need for children to be able to reach materials when they needed them, in order to help children, become responsible for their own learning.

Sensorial materials is not just about the refinement of sensory perception, but also about helping the child develop the ability to think, compare and contrast, to follow a complex sequence of steps, to observe and take it further by applying what he has learnt to a wider environment. A child may play a game to see if he can find objects in the environment to match each color tablet; discover from the leaf cabinet what leaf-shape the onion bulb has grown; how many triangles he can find in the Children's House. The environment (Cooney, 2011) is set up so that children can extend any activity they are interested in to the outside environment – maybe after scrubbing chairs inside, choosing to scrub the outside chairs as well, or after matching objects to color tablets inside, taking the tablets outside to see if they can find objects in the outdoor environment.

Children must learn to use these materials in sequence, beginning with the Pink Tower because variation in three dimensions seems easiest to perceive. Next, using the Brown Stair, they learn to perceive variation in two dimensions. Finally, they move on to the Red Rods, which vary in only one dimension. From there, (Lillard, 2013) children take up the Red and Blue Rods, the first of the Montessori mathematics materials. Essentially, the Red and Blue Rods are the Red Rods with alternating 10 cm sections painted blue. Children learn to number the sections "1," "2," "3," and so on, which leads to counting by naming lengths. Dr. Montessori also developed materials for a later learning sequence in which the lengths are broken apart so children learn to count items. Montessori Method as described above has the potential to bring about some positive changes not only to our education

system but to society at large, if this theory is applied since the 1rst school grade, children would have a natural learning environment.

#### 2.6.3 Montessori environment

The environment is one of the principal characteristics whom distinguish Montessori Method form others. Montessori classrooms are peaceful, happy places designed to meet the developmental needs of each child in each stage of life. "The environment must be made as attractive as possible so as to overcome diffidence and disgust. (...) The environment must contain plenty of motives for interesting activity which are an invitation for the child to carry out his experiences upon the environment." (Montessori, 1949, p. 80).

"The new born child is endowed with an urge, an impulse to face the environment and to absorb it. We might say that he is born with the 'psychology of conquest of the world'." (Montessori, 1949, p. 73) For Maria Montessori the environment was one of the most important features to encourage the nature learning process of the child, she believed that an ideal environment must be clean, ordered and safe. It contains many places for children to learn and play.

"The first problem of education is to furnish the child with an environment which will permit him to develop the functions that nature has given to him (...) one of natures a law decrees that development should take place by means of experiences upon

the environment. With his first step the child enters a higher level of experiences." (Montessori, 1949, p. 77) Children are confident to investigate the objects and indoor and outdoor spaces around them, are stimulated by challenges they find, and tackle any problem with enthusiasm.

As Montessori believed, the environment is a fundamental part in education, a safe and size tool furniture will facilitate and encourage the child development. So it is essential that schools have enough and suitable furniture in each level. It requires trained teachers to guide students in the first contact with a Montessori environment. "The progress, growth and development of the child depend on his love for the environment; we must therefore take care that he can absorb it with interest." (Montessori, 1949, p. 81)

"What is the aim of this ever increasing conquest of independence? From where does it arise? It arises in the individuality that forms itself, that is able to function by itself. But in nature all living beings have the tendency towards this. Every living being functions by itself. So in this also the child obeys the plan of nature. He achieves that freedom which is the first rule of life in every being." (Montessori, 1949, p. 78). Human being starts indepence sice the day he is born, Montessori believed that in order to be free been independent is the clue. She said that learning to be independent came before freedom. This does not mean give them freedom whithout limits, indepence needs to be fostered in order to lead the child a sense of freedom and self-esteem.

"Maria Montessori said that 'the child acquire independence by means of continuous effort' and that 'he realizes freedom by means of continuous effort; what life cannot do is to arrest itself, to stop. Independence is not static. It is a continuous conquest. And by means of continuous work, one acquires not only freedom but strength and self-perfection." (Montessori, 1949, p. 78) In public kinder gardens for example, teachers have an hour paint time, certain days and hours. These kind of planned activities reduce the freedom that kids needs to explore and also control what they desire to do. Plan an art activity and "get the paint out", instead of having paint available all the time for children to use.

Often when teachers hesitate to arrange materials in an accessible way, they say it is because the children would make too much mess. Montessori made it clear that it is a serious teaching responsibility to "become the keeper and custodian of the environment" (Montessori, 1949). She believed that the teacher should prepare a clean, organized, and orderly environment for the children. If every material has a place that is clearly marked in a child-friendly way with photographs or drawings as well as the printed name of the material that belong there, children have the power to get what they need and also to put it away when they are done.

### 2.6.4 The Montessori teacher

In Montessori education the role of the teacher is way too far from the traditional teacher. Their role is mainly to observe each child, to move all inside the classroom, observing children, helping them choose work, and presenting lessons. "The first step for the teacher is self-preparation. She has to prepare her imagination, (...) the Montessori teacher sees a child who is not there yet, materially speaking. This is the difference. Our teachers are on a superior level, not on the material level. Teachers who come to our schools must have a sort of faith in the child who will reveal himself through work." (Montessori, 1949, pp. 226-226) "The task of the teacher then becomes not one of talking, but one of preparing a series of cultural activity spread in specially prepared environment". (Montessori, 1949, p. 6) All the activities the teacher performs are preparation, guidance, and the subsequent "inactivity" of the teacher is a sing of success. Montessori teacher objective is to prepare a peaceful and save environment, observing and moving until her presence will not be required. "We might say it is an ideal aim, and blessed are the teachers who have brought their class to the stage where they can say: "whether I am present or not, the class functions" Each child through this activity has achieved independence and now the group has achieved independence." (Montessori, 1949, p. 226)

Montessori believed that teachers and society should only help the "great work" the children are doing, "as servants help the master". And that if it is done, teacher and society shall be witnesses to the construction of the human soul, to the rising of a new man who will have every solution to each difficulty. (Montessori, 1949,)

Montessori proposes three stages for teachers to work on their spiritual evolution:

The first stage: Teacher and environment. The ideal Montessori teacher should be young, beautiful, with flowers in her hair, scented with cleanliness, happy and full of dignity (Montessori, 1949). Montessori believes that the student will respect the teacher only if she has a good appearance. The environment must be the first work the teacher has to take care of it, so that the student will be physical, mental and spiritual safe.

The second stage: The child. The teacher must be attractive in appearance and in manner, as Montessori said; she must seduce the children at this period of concentration. "If the teacher is attractive the action will be attractive" (Montessori, 1949). Teacher can use poetry, rhymes, singing, stories, drama, clowning anything is good except the stick. Bad behavior: if there is some child who persists in molesting others at this age, the practical thing is to interrupt his actions. To interrupt and so to break his thread of disturbing activities. The interruption can be an exclamation merely, or it can be getting interested in him; multiplying your attention to him is like a lot of electric shocks to him and will bring a reaction in time.

The third stage: interested children. When the child becomes interested in an object, the teacher must not interrupt, because this activity obeys natural laws and has a cycle, and if it is touched, it disappears like a soap-bubble and all its beauty with it. The teacher must be very careful now, non-interference means non-interference. The interest of the child was not in the mere task, but in conquering that difficulty. If the teacher is going to conquer it instead, well let her, my interest is gone. The great principle which leads to the success of the teacher is this: as soon as concentration appears, pay no attention, as if the child did not exist. We must not interfere unless we are asked; the child will solve the problem. (Montessori, 1949)

## 2.6.5 The impact of Montessori Education

Maria Montessori proposed a schooling Method that is focus on child development rather than exam is centered in nature, creative and socially adept children. Interest in Montessori first swept the country in the early 1900s, but the frenzy was short-lived. Though more than 100 schools sprang up in the space of 5 years, by the 1920s Montessori had virtually vanished from the education scene.

By 1960, however, a distinctly American version began to take shape. In the decades to follow, Montessori schools in the U. S. would grow steadily in number,

and today the country is a worldwide leader in Montessori education. (Society, 2018)

The schooling system was invented in the early 1900s by Maria Montessori to educate poor children in her native Italy. There are more than 5,000 Montessori schools in the US, and around 600 in the UK, where they are privately funded. The method discourages traditional competitive measurements of achievement, such as grades and tests, and instead focuses on the individual progress and development of each child. (Guardian, 2006)

### Montessori believed in respect

The child knows that he must respect objects being used by another, not because someone has told him, he simply must, it is a fact he has found by social experience. (Montessori, 1949). Montessori describes the intelligence as a set of activities associative and reproductive that allow the spirit develop by they own relations with the outside world, because the outside world 'calls' children: from it, they receive sensations, impressions, pleasure and physical and psychological pain. It is for this reason that Montessori was very interested in the environment.

The knowledge process depends on two strong forces; "the outer that knock and the inner that says I open, if the inner force do not open is useless that the internal stimulation knocks the door". Is important to take into account that the stimulus in the outside world cannot achieve the intelligence if it is not receptive, because there is nothing in intelligence that the senses have already not perceived. Taking

into account that the disposition in the personal interests just last a short time, and here is when the Montessori notion is used the "sensible periods".

Montessori analyzed the sensations that the children received from the outside world, she was also very related with the spiritualism, Montessori believes that the child spirit is related with the sensorial objects but, she considered that the primitive thoughts are acquired in a unconscious way, and these thoughts arrive in a disorder way. Here is when Montessori decided to create an analytic process to educate children because this way they will have the capacity to order their thoughts that come from the routine life.

The development of the personality supports their teaching project. The terminology that she sustains preserves resonances metaphysical-religious. For Maria Montessori the child is not an animated body but an embodied soul that has already take possession of the body and is conduce to a specific goal.

The main objective for Montessori takes care of children autonomy, not just as a stage in their developing way. She absolutely rejected the traditional schools techniques as; abstract teaching and ex cathedra that does not adapt to the children nature and receptive faculties. She mention that is indispensable start with the concrete to develop, since the beginning, the child senses, after teach them arithmetic, grammar, geography, until rich to the abstract ideas.

Montessori studies the developing process; these are not used to obtain knowledge but to facilitate spontaneous interior energy expression. According to

her the traditional method makes children spirit a set of incoherent ideas, not allowing them express their own interests. She also blames traditional school of awake distrust, shyness, and hypocrisy in the children.

Montessori focuses on the teacher, "all the activities our teacher has to perform are a preparation, guidance, and the subsequent "inactivity" of the teacher is a sing of success. Complete outer inactivity of the teacher represents a task successfully accomplished, we might say it is an ideal aim, and blessed are the teachers who have brought their class to the stage where they can say: "Whether I am present or not, the class functions" Each child through his activity has achieved independence and now the group has achieved independence. That is the mark of success, but to arrive at this there is a path to follow; the teacher too must develop. (Montessori, 1949, p. 226)

Montessori says that is better to facilitate the freedom expression making a social life inside the classroom, because this is the interchange that is going to allows the child establish their mood and access to the social and spiritual life.

Phycologists in the U. S. found that five-year-old Montessori pupils were better prepared for reading and mathematics; and12-year-olds wrote "significantly more creative" essays using more sophisticated sentence structures. Some of the biggest differences were seen in social skills and behavior. Montessori children displayed a greater sense of "JUSTICE AND FAIRESS", interacted in an

"emotionally positive" way, and were less likely to engage in "rough play" during break times. (Guardian, 2006)

It is important to stimulate children's mind because, an idea cannot penetrate in the conscience if it had not been. Even if it is very evident, a truth is in risk of been rejected if it is unexpected. From this comes the importance of select the educative material. There are two factors that determinate all kind of knowledge: the outer or the attraction to the material, and the inner, or disposition of the spirit to the object.

Montessori search between the organized interventions of a teacher by using the appropriate teaching material, that allows the child conquer their autonomy and develop harmoniously. It is not about an absolutely liberalism but a desire that includes the freedom and discipline notions.

Pedagogies have been looking for methods to make children learn the best way they can. Each one of them had focused on stages of developing and stages of learning, they had achieved amazing results. Maria Montessori is the only one who focused in the nature of the child since the birth, in her method she wanted the teacher and society to focus in the nature way of learning of the child. Montessori Method could be very helpful because it has been tested and implemented in different social environments with different economical environments and in each one this method has had success, these Montessori students had shown greater ability to solve conflicts as well as greater empathy with their community. This research will try to implement Montessori Method inside a public kindergarten, from

year 3 to year 5. With the objective that this kindergarten implements certain Montessori techniques. With the objective to obtain a harmonious environment in which children can effectively learn.

# 2.7 Needs Analysis

In this investigation the research will look for students, teachers and school needs. Children at kindergartens have null contact with English language, at this stage they learn aspects like; colors name, the shapes, the alphabet, in their mother tongue, always following teacher's instructions; been quiet, do what the teacher commands to do. High school students face a big obstacle when they are have to pass English class. Most of them have never had any contact with English language before (because although PRONI is supposed to be implemented since 3<sup>rd</sup> grade of kindergarten, there are still some schools that does not have an English teacher for the whole scholar year), it is essential to introduce English language to children as soon as possible. According to Iwai (1999), the term needs analysis generally refers to the activities that are involved in collecting information that will serve as the basis for developing a curriculum that will meet the needs of a particular group of students. Brindley (1989) and Berwick (1989) offer definitions of different types of needs and accounts of various problems and limitations in making use of this concept, including ways in which we might usefully distinguish

between needs identified by analysts and those expressed or experienced by learners.

In his work Munby (1978) introduced communicative needs Processor (CNP). As Hutchinson and Waters (1987) say: "with the development of the CNP it seem as if English for Specific Purposes (ESP) had come of age. The machinery for identifying the needs of any group of learners have been provided: all the course designers had to do was to operate it." In Munby's CNP, the target needs and the target level performance are established by investigating the target situation, and his overall model clearly establishes the place of needs analysis as central to ESP, indeed the necessary starting point in materials or course design (West, 1998). In the CNP, account is taken of "the variables that affects communication needs by organizing them as parameters in a dynamic relationship to each other" (Munby, 1978, p. 32)

Montessori Method is focus on active children education, this research aims to restructure current curriculums with some and adequate Montessori techniques with the main objective to addresses the natural interest of potential students when learning a foreign language.

## **CHAPTER III: METHODOLOGY**

The main purpose of this chapter is to describe the procedure and the methodology that was used. This was based on Montessori Method; a public kinder garden classroom was evaluated in order to analyze what Montessori techniques could have been implemented to teach English as a second language in this public kindergarten classroom. This research contribute to make more effective teaching, not by offering definitive answers to pedagogical necessities, but rather by providing new insights into the teaching and learning process. This research investigation is a qualitative case study designed to acquire in an observational way the necessary data from the classroom environment, student behavior and teacher teaching method.

## 3.1 Setting

The public kindergarten that was analyzed is situated in 9 oriente, 24 sur, Puebla, Puebla. The kinder garden has 6 classrooms; 2 for 1 st grade, 2 for 2 grade and 2 for 3 grade.

The *vision* of the kindergarten is; to be a school that offers quality education in order to form creative, critical, sensitive, self-reliant, responsible and happy children. Children who are prepared to continue their studies and integrate

successfully into society. To that end, day by day we will keep committed with student's education and in constantly professional training and along with well-informed, motivated and participative parents. Together we will made transcendent actions and with values our children transform the actual society into a society of quality. The *mission* of the kindergarten is: To give to children a comprehensive quality education that will be the basis to the forward education that will increase in children the reflection, the criticism, the creativity and the universal values. So that they become happy and responsible human beings, prepared to face life challenges and to change society. And the kindergarten *code of values* is: to keep good attitude before daily problems and in general before life, to respect everybody inside and outside the kindergarten, and to be responsible in every aspect of our work.

## 3.2 Approach

Nunan (1998) considers that "a research is carried out in order to prove or disprove, demystify, carry out what is planned, to support the point of view, to uncover what it is not known, satisfy inquiry. To discover the cause of a problem." (p. 2). The researcher will observe and take evidences of what happens without interfering with the environment in order to find what Montessori techniques could be implemented.

This study is focused on the description of a group of students in which the behavior, environment, and the teaching was observed in order to guide and support the construction of a diagnosis.

#### 3.2 Method

The method that was used in this work was qualitative research, (Dörnyei, 2007) said that qualitative research involves data collection procedures that result primarily in open-ended, non-numerical data which is then analyzed primarily by non-statically methods used an observational check list that helped to collect data from the whole environment of a public kindergarten, for doing this syllabus there was done an observation, census data and it was necessary to make an analysis of which Montessori techniques could or could not be implemented into a public kindergarten, according to student development, teacher adaptation and parents approval. It is important to say that the research was focused on a group of students it means that the outcomes generated by the research cannot be applied to contexts or situations beyond those in which the data were collected.

## 3.3 Technique

According to Nunan (1996) the qualitative research is the method that advocates the use of qualitative methods concerned with understanding human behavior from actor's own frame of reference, is naturalistic and uncontrolled observation, subjective and close to the data, grounded discovery-oriented, exploratory, expansionist, descriptive and inductive, it is a process oriented, it is valid, real, rich and, deep data is ungeneralizable: single case studies and assumes a dynamic reality.

The researcher made a case study which attempts to observe and analyze the required variables of the observation. The technique that was used in this research was observation because this investigation is focus in observing the process in which the teaching-learning process is carried out and this way show that Montessori theory is the most appropriate. (See Appendix 1)

## 3.4 Subjects

This research project took place at the official kindergarten "Eva Samano de Lopez Mateos" in Puebla City. It focused on classroom furniture, environment, teacher and student, according to Montessori Method.

The school has approximately 220 students. There are only 6 teachers and 6 teacher assistants. Each classroom has around 25-35 students. Most of the students from a low economic status and have never been in touch with English before.

The 1 ST grade classroom we observed has 20 students; there are 11 girls and 9 boys. Their ages range from 2 to 4 years old. There is one teacher and one teacher assistant for this classroom. Also there are 24 chairs and 8 tables. It is a small classroom. Also the teaching material takes a lot of space from it. The 2 rade classroom has 34 students, aged from 4 to 5 years old, and there are 20 girls and 14 boys, there is one teacher and one teacher assistant for this classroom. There are 35 chairs and 34 tables. It is a medium size classroom. The 3rd grade classroom has 32 students of which 19 are girls and 13 are boys, their age range from 5 to 6 years old. There are 31 chairs and 11 tables. It is a big classroom; it has one teacher and one teacher assistant.

In this investigation three classrooms were observed, one is 1<sup>st</sup> grade that has the following description: 5 meters width by 6 meters length, each has one toys area, one sensorial material area, they are 20 students. The 2<sup>nd</sup> grade is 6 meters width by 6 meters length; it has the same areas and 35 students. The 3<sup>rd</sup> grade was 6 meters width by 7 meters length, same areas and 32 students.

#### 3.5 Instrument

In this qualitative research a check list was designed to help the researcher to determine which aspects are incontinently applied and which ones will be suggested.

The instrument for this research was designed by the researcher and it is intended to find rich and varied data that can provide insights about what Montessori Method could be implemented in a public kindergarten and help to maximize what it could be learn by students. The procedure that was followed for the design of the instrument was in first place observe the classrooms in which the check list was implemented, after that, the aspects of Montessori method that were selected in order to obtain the required information were; children development; that let the researcher knew which were the typical children routine inside the classroom and also their behavior. Classroom material; to observe how material is used. Classroom environment is aimed to observe the natural way class worked, how children interact with their classmates and with the teachers, their capacity to share and to control themselves. This would be helpful in the teaching-learning process. The check list consists of four columns, the first column classifies the area in which the observation was focused, the first area is focused on the student, how the student acquires knowledge, how he interacts and reacts to situations. The second area helped us to observe the material inside the classroom, if it is organized, and if it fits to student's necessities. The third area is focused on the environment; this

helped to determine how the class flows, if the classroom could be considered as a safe place and if students have a peaceful coexistence. The second column helped to identify the characteristics observed about the student, material and the environment. The third column confirmed or denied the characteristics observed inside the school match with Montessori Method proposal. At the fourth column was written the suggested implementation if it need it.

### 3.6 Procedure

The instrument is designed to provide determined data necessary to develop this research. It was applied inside "Eva Samano de López Mateos" kindergarten for 1 day for each grade. Information will be showed for its analysis, discussion and interpretation.

To begin the observation it was necessary to ask to the principal of kindergarten for the correspondent consent to allow the application of the instrument inside the three selected groups. Once the consent was obtained the researcher notified to the three teachers the date they will be observed, the researcher also showed and explained to them how the observation will be and what will be observed. She also explains the teachers' doubts in order to make. The observations began when arriving at the kindergarten, there was observed the context in which the school is located, parents, students and teacher's behavior, play areas, gardens to explore

nature. And inside the classroom student and teacher attitude at the beginning of the day. It was also observed the teacher method and the student response. The instrument helped to obtain the need it data to complete the research and find if it there is possible to make some changes into the environment and curriculum.

After the observations were made and the data was collected, the researcher process the obtained data with the help of comparison tables, divided by levels, classroom and student qualities. This allowed observing clearly the areas of work in the environment, student and material, in which this research is focused on. Therefore, the results from the check lists are explained more detailed in the next chapter to show what Montessori techniques could be implemented into an official kindergarten.

### **CHAPTER IV: RESULTS**

In this chapter the results of the instrument that had been implemented in this diagnosis will be shown. This results will been focused in what teacher techniques could be implement to modify certain children learning and growing process, according with what Montessori Method proposes.

#### 4.1 Observations

Based on Walker and Adelman (1975), for teachers, the observational role is not important in itself, it is only useful for the kind of information that makes possible to collect about what is going on in the classroom. The observer can see things that teachers cannot see, and they can use this information to make themselves better teachers.

In this way, the results are the prove of a systematic observation process, which includes the previous literature review and the previous design that was used as the main characteristic of the observation, with the objective of founding what Montessori techniques could be implemented into the official kinder garden in order to demonstrate that it is possible to improve the teaching-learning process in public schools. Now this information will be showed for its analysis, discussion and interpretation.

To begin the observation it was necessary to ask to the principal of Eva Samano de Lopez Mateos kindergarten for the correspondent consent to allow the application of the instrument inside the three selected groups. Once the consent was obtained the researcher notified to the three teachers the date they will be observed, the researcher also showed and explained to them how the observation will be and what will be observed. She also explained the teachers' doubts in order to make teacher feel comfortable and in a natural environment who benefits the investigation.

The observed classes and strategies used by the different teachers are different. The following description will be distributed as follow: the three classrooms of the Eva Sámano de López Mateos kindergarten school will be described using the three aspects that the instrument has, in order to find the classroom characteristics and student behavior. They will be described one by one in order to analyze all the characteristics that were found in the observation. Finally, the conclusions are going to be made, section by section comparing each classroom, grade, student behavior and also teacher's methods.

**Table 4.2 Children Development** 

	MONTESSORI METHOD	1rst	2nd	3rd
CHILDREN		GRADE	GRADE	GRADE
	Learn to observe	J	•	1
	Categorize the observation			1
	Concentration	1	1	1
	Freedom	1		
	Autonomy		1	
	Order	J		1
	Respect to others		1	1
	Initiative		J	
	Self-control	<b>√</b>	J	1
	Individuality	1	J	•

It was observed that in first grade classroom, kids have a very high interest in learning and exploring new situations, flavors, shapes, odors, tastes and everything they can find in their environment; why do they have to use a coat while they are working with paint or clay?, why do they have to listen and respect each other?, or why do they cannot use pacifier anymore?, it is amazing how they can adapt rapidly and easily to a new environment, people and situations. It depends a

lot on how the context or in this case how the classroom and the class works. Another interesting fact that was observed is that most of them do not like the idea of working in teams, because they do not like to share their material, so it could be really necessary to have material for each one and find the way in which they enjoy working in teams. There is a lack when talking about respecting each other, they used to take others food, others lunch, others material, pushing others, crush them, etc. Maria Montessori (1949) proposes to respect others activities so, it must be necessary that teacher shows every student why it is important to respect others activities until they are done. All children have to feel the security that nobody will interrupt their process of learning or experimenting and inside the classroom the only responsible is the teacher. Montessori believed that education should not be focused only in the giving of knowledge but in been conscious that a human been is been constructed every minute, inside and outside the school. And because of that the center of education must consider children personality, and the development of children potentialities.

In 2<sup>nd</sup> grade, children were always asking what they are going to do, what are they going to need, anytime teacher finishes taking material, they were very collaborative and they stop until the teacher ask for it. They enjoy working individually, because they have their own space to think and learn at their own time. But also they really like working in teams, couples or with the whole group, because they can shout, sing, talk, they interact, they learn and they have fun, but just if they have personal material because if they do not have it, they take it from

the ones that have it. As in first grade children do not for this reason Montessori suggest that the teacher must let children choose what they want to work in.

Children at 3<sup>rd</sup> grade were more actively to participate in all the activities the teacher propose, they enjoy to work alone and in group they enjoy to see how the teacher enjoys the activity and the imitate that feeling. There is also a lot of respect; teacher-student, student-teacher and student-student, they really respect each other and they behave very orderly. Children at this age (Montessori M., 1949) had already learned to respect other space and activities, but also to follow teacher indications. Montessori said that that a good human teacher, can only help the great work that is being done, as servants help the master. If we do so, we shall be witnesses to the unfolding of the human soul, to the rising of a New Man who will not be the victim of events, but who will have the clarity of vision to direct and shape the future of human society.

Montessori refers to schools like a place where students must follow the rules established by each institution and adapt themselves to the syllabus recommended by the ministry of education, she was totally disagree with their method, she demonstrated in the house of the children that each children has their own way of acquiring knowledge, and that the teacher role is only to help when they are asked for. "His dignity will arise in its fullness in front of our eyes as he reveals himself as the constructor of our intelligence, as the being who, guided by the inner teacher, in joy and happiness works indefatigably, following a strict time- 8 table, to the construction of that marvel of nature: MAN" (Montessori M., 1949, p. 6)

**Table 4.3 Montessori Material** 

	MONTESSORI METHOD	1rst	2nd	3rd
MATERIAL		GRADE	Grade	GRADE
	Variety of ages			1
	Self-learning			
	Self-correcting			
	Ascending complexity			
	Interesting	<b>√</b>	•	<b>√</b>
	Good quality	1		

The furniture in the first grade classroom is good designed for the children hands, this is very important because children have all the control while using the material. The material is ordered in a classroom place designed for the materials, inside shelves and boxes. Students take material also while teacher was doing another activity, when this happens, teacher called the students attention once and then she said to them that "it was no time to take material", and if they decided to continue playing with that material teacher just did not do anything about that, but the students finally said to the teacher that they want to work in what their classmates were working at. There was a lot of sensorial material and the children are allowed to work with it, only when they had already finished their lunch and had

their table clean. The material was in order (all the puzzles in one place, all the books in one place...) but it was not divided by areas (history, English, mathematics...). According with (Lillard, 2013) working materials must be kept on shelves and freely available to the children, it must be organized into topics such as language, math, and literature and so on. But also the materials inside the classroom should be designed so that if children make mistakes, they can see and correct them without close teacher supervision or intervention.

It could be added that in this type of classrooms it could be possible to modify and to apply Montessori Method, it will be necessary to modify certain S.E.P (Secretaría de Educación Pública) curriculum, teacher's methods and classroom material order. There are only 20 to 26 students per classroom and there are two teachers that are helping each other to monitoring children activities and behavior all the time.

At second grade classroom the furniture was again designed for children hands size, young children need furnishings their own size and tools that fits their small hands. There was also sensorial material but not too much and the children were able to work with it only when they had already finished activities. The material is used just for student's distraction; it does not have a real learning objective for the student. The didactic materials were to function 'like a ladder', as Montessori (1972) expressed it many times, which would allow the children to take the initiative themselves and progress towards self-realization. "A basic principle of the didactic materials was that the activities should be methodically coordinated so

that the children could easily judge the degree of their success while engaging in them." (Röhrs, 2000, p. 6). The material as in the 1<sup>st</sup> grade was in order (all the puzzles in one place, all the books in one place...) but it was not divided by areas (history, English, mathematics...)

The furniture in the third grade classroom was like in the1st and 2<sup>nd</sup> grade classrooms, it was in order, they have a minimal amount of material (geometric figures) because they are not supposed to work with this tools any more, they are focused on learning to count, the shapes, in few words they are been prepared for primary school. Montessori theory (1949) is based on sensorial material as the most important tool in their method; Dr. Montessori designed materials for different learning levels that should be introduced by the teacher when children reach the level. So that it is possible to keep sensorial material in 3<sup>rd</sup> grade but with a different kind of complexity. Dr. Montessori objective was to guide the development of the children in a responsible way to keep in them the spirit of science.

**Table 4.4 Montessori Environment** 

	MONTESSORI METHOD	1rst	2nd	3rd
		GRADE	Grade	GRADE
	Calm	1		•
	Ordered		1	1
	Silent	•		•
	Concentration	1	1	•
PREPARED	Limits	1	1	1
ENVIRONMENT	Rules	1		•
	Peaceful	1	1	1
	Safety	1	•	1
	Respect		1	•
	Love	1	<b>.</b>	
	Movement (space)			
	Freedom			

Referring to the environment in first grade the classroom has the children personal art works in almost all the classroom and it brings beauty for a kinder garden classroom and self-confidence to the children. It was also observed that most of

the children have a lot of confidence with their classmates and with the teacher, they enjoy playing and working, they follow teacher instructions and they are involved in their teacher directions. We need to expand on this by putting in place the two factors Dr. Montessori (1949) said that we need to provide for these students a prepared environment and the freedom to explore learning in that prepared environment. We need to provide them with a room filled with numerous carefully designed activities to help them learn and the freedom to choose which activity they wish to work on, when they wish to work on each activity and how long they wish to work on each activity. It was also noticed that the material (blocks, magnifiers, books, mazes, puzzles, toys...) was not divided by areas, a reason could be that the kinder garden was not focused on teaching to children, mathematics, sciences or languages with the materials, perhaps because of that their teaching is not really focused on teaching aptitudes that will help children for their future studies or for their future life experiences. "The learning environment should value and respect all students' experiences and ways of thinking, so that learners are comfortable taking intellectual risks, asking questions, and posing conjectures" (Manitoba, 2008, p. 3)

The second grade classroom has a great space for children activities; material is ordered inside shelves and boxes, there is a safe environment because teacher and the teacher assistant are at any time observing and taking care of the children. There are student works in all the walls and even in the ceiling and a lot of decorations, it could be also seen that children feel proud that their art-works are in

permanent exhibition. Students are used to share the daily experiences with the teacher and this shows the confidence between teacher and student, and perhaps treat all of them alike, ignoring the sensitive periods of each child. "As educators, we are constructing our own understanding and appreciation for the natural process of development that every child undertakes, so that we may collaborate with nature, and aid the child in what he was born to do." (Andrews, 2014, p. 1)

Referring to the environment in third grade, the classroom as the other classrooms has the children art-works by all the classroom places and it brings beauty for a kindergarten classroom. Inside this classroom the teacher role was rigorous, she gave instructions and students follow without questioning the teacher order. Students learn to completely behave, and to respect their classmates. Montessori teachers gradually allow the children to move away as they get younger they learn to control themselves and can therefore function more independently. Most children do not need to stand by like this, and those who do rarely need to do so for long. In this sense, then, Montessori education is very structured. It could also be noticed that the children have confidence with their classmates and with the teacher, it was observed that the material (blocks, geometric material and book) was not divided by areas, a reason could be that the kinder garden was not focused on teach children, mathematics, sciences or languages, maybe because their teaching is not oriented in teaching throw sensorial material.

The results show that in 1<sup>st</sup> grade kindergarten, students are more likely to act naturally and to follow their nature, teacher help must be used only when they ask for it. Children at this age are used to learn through movement and by stimulating their senses. Kids in 2<sup>nd</sup> grade are able to share and to care with other children and adults, they start to follow indications without asking; why? Children in 3<sup>rd</sup> grade start to act like little adults, the follow all the rules and all the teacher' indications, they start to think in the consequences of their behavior. The start to analyze their life situations.

# **CHAPTER V: CONCLUSIONS**

As last part in this chapter will be presented a summary of the results of this research work and the main experiences, limitations, implications of the study; which include the problems faced during the observation and data collection to finally given instructions to further research; in this section suggestions and relevant points will be also included.

# **5.1 Research Questions**

How Montessori principles would be adapt into an official kindergarten in order to encourage nature children learning?

Dr. Montessori devoted her life to the observation and study of children, she found that children learn better when they are free to learn in their way, their nature way. In this research work it was observed the student behavior and the school furniture and necessities in order to find the possible theories that could be implemented inside a public kindergarten with the objective to improve the natural way of learning of children. It was found that these teachers are the instructor of the class, Dr. Montessori proposal is that teacher will only help children only when they need it, a Montessori teacher is a guide that is able anytime the children is in trouble.

Montessori Theory says that in order to improve children learning, children must feel and be save inside the school, so that the environment must be ordered by areas with the objectives of avoiding confusion in children and also helping them to learn to keep their space ordered. Official kindergarten didactic material must have and educational objective. It must be oriented in teaching children soul and brain to be independent, to explore, to analyze, to be helpful and to be ordered.

Active learning aims to made students learning activities efficiently and dynamically, this research is focus on teaching throw letting children to discover their environment, to process the knowledge and to apply the acquired information.

# What significant changes would the official kindergarten curriculum would have to change in order to adequate Montessori Method?

The current curriculum principal adjustments will be STUDENT centered in guiding children when they feel lost, to teach them how to implement sensorial material by observing and analyzing each student progress, instead of adding entertainment material to keep students quiet.

It must be necessary to train not only teachers but all school personal so they could be able to implement Montessori theory the best way. Parents support would be essential, because they are the main clue of success when letting children apply their knowledge in their dairy life.

#### 5.2 Conclusion

The main purpose of this research was to make a diagnosis in an official public kindergarten in order to observe and analyze what Montessori techniques could be implemented.

Regarding the goal, the three observed classrooms were compared with each other using the main characteristics of what is needed in a Montessori classroom, so that the obtained results could be compared with the objective to find their similarities and their differences related to student behavior, classroom environment, and classroom furniture. Consequently, some important conclusions can be presented from the classroom observations.

The observations allowed to make some conclusions of the student behavior, the order in the classroom, the furniture in the classroom and how all this influences on students' learning.

The classroom environment influence much in children learning, the child size furniture was very important because children could manipulate the tools easily. Third grade class has a big classroom because they were 32 students, they were very participative children, and they enjoy working with each other. The way in which the material was orderly, but they did not use it, teacher was very focused in

letters and grammatical things so that she did not have sensorial material with them. Also they work focused in their mother tongue.

The environment at second grade was similar as in the third grade, it was very orderly, safe, beauty, peaceful and also the children has a lot of confidence with the teacher, they worked with the sensorial material, children were focused in learning the home labors like doing the bed, cleaning the space that they used, putting the material they used in the correct place, sharing their own experiences when they did this at home. A difference from third grade was that this classroom has an hour English class, this class was given for a Facultad de Lenguas BUAP trainee, the student behavior in this class was very different, children think that this time was playing and dancing time, the English teacher works with basic aspects, but this class also cannot be as a Montessori class should be, because they have not the necessary material to work on a foreign language. They are focused just in the daily living and in their mother tongue.

The space for first grade was considerable smallest but it was also beauty and it was orderly and children were very active, the furniture was child size and they enjoyed using it. Also in this grade they have two English hours per week, also for a Facultad de Lenguas BUAP trainee. They seem to be freer (doing whatever they decided to do, if they did not want to work in what the teacher says) it was the same in the English class. Also the educator program was just focused in children daily living and in their mother tongue.

# 5.3 Implications

The findings point to the need of proposing a method that includes and that improves the natural children learning and the active teaching of a foreign language (English) as a requirement in official kindergartens, monitoring in order to avoid the use of other methods that do not promote active learning. The outcomes of the observation also suggest that serious training programs will been necessary to prove the correct functionality of what the main objective, pedagogues theories, and methods, focusing on active learning theory instead of not having any knowledge of other language. The transformation of this system in the official kinder gardens schools should also change the official schools methods, teachers' methods, and the students learning.

Active learning implies that the children learning will comes naturally and incontinently, that is, Montessori Method, is centered in how children acquire naturally ways or abilities to solve their daily problems or just for interacting with the society, there are crucial elements to effectively implement Montessori theories. In order to achieve the preceding, schools need to take internal decisions, in order to create a new system to learn how to teach children in the best way in which the unconscious learning comes a reality.

In the whole experience, was founded that the teaching methods and systems are the main responsible of the children learning, principally the official schools system, because it has not teaching a foreign langue as an objective, and as consequence, all the official kinder gardens schools are not equipped with the indispensable tools for teaching a foreign language. However, these are not the only responsible of this necessity, it is essential that parents and administrators collaborate together to create a conducive environment that motivate children to have a natural learning.

# **5.4 Limitations of the study**

This study was carried out using observations methodology in the management of Maria Montessori Method (Natural Learning). As the conclusions of this research are based only on the results of the observations of 3 classrooms, one day per grade, the results could be limited and subjective. The results could also not represent the real behavior and learning process of the child because of the observation length.

Classroom internal characteristics, that takes place in other schools may be different as children behavior will differ according to the institutes, the characteristics of the methods used depends on the system, curricula, and educational models the school has.

The research is only focused in the natural way of learning of children inside the classroom, it does not take into account the outside world out the school, and it also is not focused on the child background. It does not discuss the child personal

life but, this research suggests that kids could learn to be useful, free, independent, and able to solve their personal conflicts.

# 5.5 Direction for further research

It is hoped, that the results of this research will be useful primordially for the novice teachers and students that are interested in improving the way that they can modify the way official kinder gardens methods teach preschoolers.

Qualitative method is suggested to be used if any further research is to be developed, recommended to implement teacher, students and supervisors interviews, in addition to the observation already made.

The data collected in this research was got only by observations. However further studies on teachers' perceptions about Maria Montessori Method, the participation of curricula schools, classrooms methods, students behavior, and administrators need to be observed and considered in order to goes deeply how can be implemented Montessori Method to teach English as a foreign language in each institution and classroom. Such research should use different methods and instruments, such as interviews, observations, surveys and literature reviews.

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# Appendix 1

CHECK LIST			
ROLE	MONTESSORI METHOD	DFICCIAL IN KINDER GARTEN	<b>UPLEMENTATION</b>
	Learn to observe		
	Categorize the		
	observation		
	Concentration		
	Freedom		
	Autonomy		
STUDENT	Order		
	Respect others		
	Initiative		
	Self-control		
	Individuality		
	Variety of ages		
	Self-learning		
	Self-correcting		
	Ascending complexity		

MATERIAL	Interesting
	Good quality
	Calm
	Ordered
	Silent
	Concentration
	Limits
ENVIRONMENT	Rules
	Peaceful
	Safe
	Respect
	Love
	Movement (space)
	freedom