

**BENEMÉRITA UNIVERSIDAD AUTÓNOMA DE PUEBLA  
FACULTAD DE LENGUAS**

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**“TYPES OF BILINGUAL EDUCATION IN KINDERGARTEN: A COMPARISON  
IN 10 SCHOOLS”**

**A thesis submitted to the School of Languages for the Degree of  
LICENCIATURA EN LENGUAS MODERNAS**

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## **ABSTRACT**

This thesis reports a qualitative comparative study of types of bilingual education in kindergarten. This study was carried out at ten kindergartens in Puebla which have a bilingual English- Spanish program. The main purpose of our research was to find the different types of bilingual education in order to discover which type fits your necessities if necessary.

The research data were collected visiting ten kindergartens in Puebla. We asked principals and secretaries for information about how they taught English and some of the characteristics of each kindergarten.

The research found than nine of the ten kindergarten used the two- way bilingual method and just one school teaches by total emersion method.

Findings also revealed that this type of education is principally used for families which have a middle socioeconomic level. Another thing is that the average of students is minor than 20 which provides a better classroom control. Also we found that most of these schools have extra activities related to sports and art. Those activities are taken after the common schedule. More characteristics will be mention within this thesis.

## **ACKNOWLEDGEMENTS**

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## **DEDICATIONS**

### **To God**

I thank to God for being with me every moment. Thank you for giving me all I have.

Thanks for giving me the faith and courage to finish this project that has been one of my biggest goals in life.

### **To my family**

I thank to my wife, my daughters who motivated me every moment. They encourage me to be a better teacher and a better man. They have enjoyed and suffered beside me in the different stages of this project.

Thank you for supporting me in all my decisions, for showing me how important I am to them, but principally for loving me.

### **To my parents**

I dedicate this to my parents, for their guidance in the difficult moments of my life and for their companion until now, for each advice they have given to me. For educating me and show me the importance of perseverance. For loving me and because they have done their best to make me who I am now.

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# **TYPES OF BILINGUAL EDUCATION IN KINDERGARTEN: A COMPARISON IN 10 SCHOOLS**

## **CHAPTER 1**

### **1.0 Introduction**

Parents have a notable interest in their children learning English. Nowadays, bilingual education beginning in the elementary levels has become more important for parents. There are different types of Bilingual Education (BE) used in kindergartens. Each type of BE has certain characteristics. Some of them make a complete English environment such as total immersion programs. Another is the two-way bilingual education in which fluent or native speakers of both English and Spanish language are teaching in the same classroom, so students are learning both languages simultaneously. This study looks for information about the different types of BE schools available for young learners (kindergarten). To do the surveyed I went to ten kindergartens in Puebla, Mexico to get an understanding of the types of BE available in this location and to describe their different characteristics.

### **1.1 Justification**

This study is relevant for two diverse reasons. The first reason is that as EFL student I (the study researchers) have given classes in different levels (e.g. children, teenagers and adults); however, I have developed a special interest in teaching English to children especially in kindergarten. Secondly, in some years, I want to open a bilingual kindergarten. Therefore, I want to know the characteristics of the types of BE employed in kindergartens. In this way, I can support our kindergarten curriculum and use the information to convince parents that our school is well prepared and the curriculum relevant and designed based on a number of factors associated with current thinking of BE. This was a qualitative research applied in 10 kindergartens of Puebla which helped us.

## **1.2 Significance**

This research is significant because of two reasons. Firstly, this study talks about the different types of BE applied in kindergartens in the research location; therefore, EFL teachers that work or will work in a bilingual kindergarten can take this research as a resource. Another reason is that in this thesis teachers will be able to check not just the different types of BE but the characteristics of each one. Consequently, teachers can use this study as a tool to know more about the type of BE that is been applied in their kindergarten or the one they are going to work with.

## **1.3 Context of the research**

In this study, I included certain areas of research: theories associated with bilingual language acquisition, types of BE, the development of speaking, listening, reading and writing in each type of BE and the influence of the critical period in second language acquisition (SLA). These areas are discussed further in Chapter 2 in order to describe the setting.

## **1.4 Background of the researchers**

I selected this topic for two causes. First, at the time of the study I was a student of modern languages in the teaching area (ELT). The ELT program, which has 10 semesters, gave us many opportunities to explore different aspects of language teaching and learning. During our studies, I had the opportunity of working with children. That experience motivated us to look for alternatives to teach English as a second language. I was interested in children's education because I am planning to open a kindergarten. I chose to research about BE in order to have a reference about how those types work. As a result, I will be able to identify the type that fits in our context better.

## **1.5 Research location**

For our study, I surveyed ten BE kindergartens of Puebla, Mexico. These kindergartens apply a type of bilingual education. Children attend from first grade to third grade. Their mother tongue is Spanish, and English is used as a second language. One reason I chose these schools was the flexibility of the principals in providing necessary information for our study. Another reason was the location of these schools. They were near my work place and school. The schools are described in more detail in Chapters 3 and 4.

## **1.6 Aims**

This principle aims of this study were:

To analyze the different types of BE used in kindergartens in the research location,

To investigate the different characteristics of each type of BE

## **1.7 Research question(s)**

This study was guided by the following research questions:

RQ1- What are the different types of bilingual education used in the kindergartens examined in the study?

RQ2 -What are the different characteristics of each type of kindergarten?

## **1.8 Chapter summary and overview of thesis document**

In this chapter, I talked about the background of the research. Also, I mentioned why I chose this topic, why it is important, the context of the research, the setting in which our research took place, the aims and the research questions that guided this study. Chapter 2 presents the literature review and the theoretical framework, in Chapter 3 I describe the process of collection data that helped us to answer our research questions. Chapter 4 provides the data

and findings as well as the results of our research questions. Finally, in Chapter 5 the significance, the limitations and conclusions will be discussed.

## **CHAPTER 2**

### **2.1 Introduction**

This study was about types of bilingual education. There are bilingual schools where children can learn English since kindergarten. They receive English and Spanish classes from the first grade. In Puebla, there are bilingual kindergartens. There are different types of bilingual education applied in these kindergartens. This study was focused on understanding how the types of bilingual education in those school are applied and how they developed reading, listening, writing and speaking skills.

Therefore, to understand this study I will explain different terms related to bilingual education. At the beginning, I will start giving some definitions about BE and how BE is managed in Mexico. After that, I will discuss some theories associated with BE, what is the influence of the critical period in second language acquisition (SLA). Finally, I will mention the types of BE and how they develop speaking, listening, reading, and writing skills.

### **2.2 Bilingual Education**

BE has different definitions. According to Freeman (1998, p17. ) “BE is using two languages for instructional purposes.” For Guthrie (1985, as cited in Mackay,1993, p.25) BE is “... the use of two languages, one of which is English, as mediums of instruction for the same pupil population in a well-organized program which encompasses part or all of the curriculum and includes the study of history and culture associated with the mother tongue.” Christian and Genesse (1997,p.1) mentioned that “BE can be defined generically as education involving two languages as media of instruction.”

All these definitions have similar aspects. BE involves the use of two languages. However, the authors emphasize that BE is for instructional purposes. It is important to mention that BE implies working with the student’s mother tongue and a foreign language.

BE is not a new phenomenon. There is a misunderstanding about when this term began to be used. Although there is not a clear date about when BE started to be applied, Brisk (1998) says that the colonization in The United States could have been one important aspect in the beginnings of BE. She states that in order to have better results at the moment of making agreements with other countries, European settlers began to give bilingual instruction at schools. The nations initiated to teach English as a second language and for native English speakers another language such as German or French was taught. In 1960's the Civil Rights Movement in the United States made that the Supreme Court ordered 'education in equal terms' (Freeman, 1998). It caused that when immigrants arrived, BE turned out to be the solution for equal education opportunities.

We can notice that BE has a long history. Even though, the precise date is not known, BE has had similar purposes; to communicate people of two different countries in order to make better agreements and/or to achieve equality among citizens.

### **2.2.1 Bilingual Education in Mexico**

BE in Mexico is not new. It started with the Spanish-indigenous language education. Suzán (2003) mentions that in 1978 the *Secretaría de Educación Pública* (SEP) through the *Dirección General de Educación Indígena* (DGEI) began bilingual education programs in all the indigenous communities of Mexico. This program does not have the base of a real bilingual and bicultural education. On the other hand their main goal was to make the students speak Spanish. Also the government tried to incorporate them into a unique culture avoiding their native culture.

According to the BE definition that was mentioned above, We can notice that since the beginning, in Mexico the term BE has not been well understood. Nevertheless when talking about BE in Mexico it also implies Spanish-English BE. As said by Faltis, (2011)

firstly this type of BE was just for secondary and high schools. It was in the 90's when English classes in public primary schools started to be implemented. It began with 5 states and for 2009 there were 21. All these states made use of a State English Curriculum for Primary Schools.

Although BE is not new, public education has not developed it in a relevant way. Mercu(2007, cited in Deborah Farley ,2009)states that BE in public schools demonstrates different deficiencies like the curriculum, the teachers, the equipment and the number of students. The teaching curriculum is designed based on the book content. In many cases the audience context does not match with the book content or the ones who chose the book are not well prepared for this duty. Teachers do not possess enough training to teach English to children or they are not proficiency in the language. The equipment does not encourage or provide a comfortable teaching environment. Sometimes the classroom size is not adequate for dynamic classes. Finally, I have to point out that the number of students in a public school is not the suitable. These large classes reduce the individual feedback. As a consequence, the quality of learning decreases.

Educators in an ELT University that have had the opportunity of working in BE private schools agree on the quality of private BE schools. First they mention that there is no comparison between public and private schools. In public schools the English hours are just three per week but in a private bilingual school the English hours are around 9 to 11. This time of exposure to the SL influences dramatically on the students' performance. This is in addition to the quality of teaching and some other factors mention above. The English classes in a BE private school are not just about English language (as in public schools), in these schools English is also a means of instruction. For example science, geography, and biology



classes among others are taught in English. In this way children have the opportunity of acquiring more diverse vocabulary.

Educators maintain that the level of English teachers vary from public to private schools. In public schools most of the teachers possess a basic level. Public schools do not demand a high level of English or an efficient methodology. Principles of these schools are just required to say that they already have English classes in their schools so they are fulfilling the state requirements. As a consequence, teachers do not improve their level as a result of the lack of support and interest from the school. The institutions do not afford English courses or diplomas for their English teachers. Students are just required to pass the course; they are not asked to develop language skills.

On the other hand, private schools demand a high level of English proficiency from the beginning. During the school term teachers are asked to attend to different courses. They have to do lesson plans, demonstrations, portfolios and cultural activities during the school year. Parents are actively interested in their children's improvement which makes principles have a close interaction with English teachers in order to notice when a teacher is not working efficiently. Students are constantly evaluated to see their progress concerning language skills.

In most BE private schools it is commonly believed that you can find a better development of language skills. These schools support their English teachers' development better which gives best quality of teachers and methodology. The schools are obligated to not decrease their quality so principles pay careful attention to their English teachers and students' development. So in general people believe BE private schools provide a high quality of English.

### **2.3 Theories associated with bilingual language acquisition**

There are diverse theories associated with bilingual language acquisition (BLA). Some of them mention that BLA is a separate cognitive process for each language. Others maintain that the two languages are fused in the process. The separate underlying proficiency model of bilingualism states that this model conceives of the two languages operating separately without transfer and with a restricted amount of 'room' for languages Cummins( 1980, cited in Baker, C. 1996)). For example, we can imagine that each language is a balloon in your brain, each one is operated separately. It means that if one balloon rises the other will drop and vice versa. Although it seems logical, psychologically it is not completely convincing. Baker (1996) goes on to say that it is wrong to assume that the brain has a limited amount of rooms for language skills; there are enough cerebral living quarters not only for two languages, but for other languages as well. With this we can notice that the brain is not as restricted as the separate underlying proficiency model of bilingualism affirms. The brain has the capacity of acquiring two languages at the same time with no decrease in the quality of either.

The common underlying proficiency model maintains that both languages operate through the same central processing system. When you see a bilingual student using one language, it seems that both languages are independent but each language comes from the same central engine. Information processing skills can be developed through one or two languages. What would make this succeed is the appropriate use of the languages channel – the means by which I manage languages.

There is another theory that also looks at the relationship between cognition and degree of bilingualism. It is the thresholds theory (Toukomaa,1977 and Cummins,1976,cited in Baker, C. ,1996 ) which is represented as a house with three floors. Each floor represents the level of proficiency and the positive or negative cognitive consequences of types of

language learning. The first level indicates those children who are not competent in any language as a result the cognitive consequences are negative. The child may suffer when processing information. The second floor shows the children who have the competence in one language according with their age but not in both languages. At this level is not possible to place any relevant positive or negative cognitive variable in contrast to a monolingual child. At the top we can find the children that are near to a real bilingual student. At this level, the child will be proficient in two or more languages. Positive advantages of bilingualism appear in this level. The child could have some cognitive advantages compared to monolinguals.

Another author that has contributed in a relevant way to this topic BE is Stephen Krashen. Krashen (1996) believes that a well-organized BE program offers in addition to a high-quality input in English, variable subject matter content in the first language as well as the correct development of literacy in the same language. The subject matter knowledge in the first language will make easier the expansion of the second language (English). It would also help children to read and write effortlessly in English. When literacy grows successfully in one language it transfers to the second language. With this information we can observe that Krashen supports, in BE, the development of the first language in order to increase the knowledge of the second language. If a child is competent in his first language, gaining comprehension of the second language would not be difficult according to Krashen's perspective.

As we perceive, learning two languages is not an easy procedure. But the brain has the ability to do it; even to learn two or more languages. The process of each language comes from the same central processing system which makes this process different from a monolingual child. At the beginning it can seem that the bilingual child is not progressing

but when he/she has developed both languages, he has more advantages than a monolingual child. Maintaining what Krashen (1996) states, a successful BE has to pay attention to the primary language development which would make the acquisition of the second language more successful.

#### **2.4 The influence of the critical period in second language acquisition (SLA)**

In the field of critical period (CP) although Lenneberg (1967, as cited in Tokudome ,2010) has been considered to be the first researcher, Penfield and Roberts (1959, as cited in Burgo, C. ,2006) are commonly attributed to be the original in recognizing the existence of a critical period in language learning (Tokudome, 2010, p.19). They maintain that "...for the purposes of learning languages, the human brain becomes progressively, stiff and rigid after the age of nine". Lenneberg (1967,as cited in Tokudome, 2010), after doing an investigation about language recovery among aphasic patients, concluded that "the primary acquisition of language is predicated upon a certain development stage which is quickly outgrown at the age of puberty". The critical period hypothesis (CPH) (Lenneberg, 1967, as cited in Tokudome,2010 ) states that the language acquisition process occurs just during the critical period, from early infancy until puberty. Chomsky( 1972, as cited in Genesse, F, 1987) explained this as the innate capacity of learning a language.

Even though these authors only talk about the influence of the CP in the first language acquisition, there are some findings that demonstrate the influence of the CP in SLA. A study showed that young learners are more proficient in SLA than adult learners, then CP affects not only first language acquisition but SLA too(Tokudome, 2010). The maturational state hypothesis also supports this idea. This hypothesis states that the child's brain has something special in the maturational states which make acquiring any language effortless. This means that for any child it would be easier to learn a first or a second language, than an adult. Studies

of eventual attainment in the language (Johnson & Newport, 1989) have shown superiority in syntax and phonology of the person who began learning in childhood.

There is also a study that gathered the same results about child's advantage over adults learning, the Oyama study, Oyama(1978,as cited in Johnson and Newport,1989). This consisted in repeating spoken English sentences that were camouflaged with white noise. It tried to measure the linguistic knowledge (e.g. phonology, syntax, intonation, redundancy patterns). Although its findings were the same, the study also contributed to the knowledge about adults difficulties when learning a second language. The research mentions some factors, besides the maturational state that could affect the adult's performance. The motivation of learning the language fully is not the same as the child; the adult is more self-conscious about practicing and making errors. The adult does not have the same cultural recognition with the target language. These factors could influence the adult's learning and well as the critical period.

A more recent study showed that in point of fact the brain acquires a language differently depending on the age. Weber-Fox and Neville (1999, as cited in Tokudome, 2010) employed functional magnetic resonance imaging (fMRI) in order to contrast the brain patterns of Chinese immigrants in their second language use of English. Their findings revealed that some variations in brain's patterns were present. They brought to a close that, "...converging evidence from behavioral, electrophysiological, and fMRI studies suggest that specialized systems that mediate different aspects of language may be distinct in their susceptibilities to alterations in the timing of second language learning". From this study it seems that how the brain gains language differs from young to old learners.

Although, all these studies support that there is strong evidence of CP effects on SL, there are some others that do not conclude the same. An example can be the Exercise

Hypothesis. This hypothesis maintains that in premature life humans have the innate capacity of learning languages. If this ability is not exercised, the ability will decline with maturation. On the other hand, if the ability of learning languages is exercised this will continue with the same quality through life. Bongaerts (2005, p. 259, as cited in Tokudome , 2010) mentions two kinds of proofs that the critical period must demonstrate: “(1) there should be a discontinuity in the slope of the decline in L2-proficiency situated around the terminus of the critical period, and (2) no second language learners starting after the terminus period should demonstrate achievement of native-like levels of ultimate L2-attainment”. Tokudome (2010, p.21) argues that “the existence of a critical period must be characterized by a distinct time frame of heightened capacity in learning followed by a sudden decline in proficiency. It must be characterized by a distinct onset and offset.” Subsequently, any person that learns a second language after the critical period should not show a native-like success.

Actually, there are some studies that verify post critical period SL learners to reach a native-like grammar and native-like pronunciation competence. Ioup et al. (1994, as cited in Tokudome, 2010) investigated the proficiency of two non-native Arabic speakers. Both women started to learn Arabic as young adults. The two women were assessed in pronunciation and in grammar. After various native reviewers’ opinions, 62% concluded both women possessed a native-like proficiency. Another study is the one made by Flege et al. (1995, as cited in Tokudome, 2010). The study consisted of evaluating 240 Italian immigrants, which age of coming to Canada ranged from 2 to 23, read English sentences then the recordings were given to native speakers so they can judge for a native-like proficiency. The conclusion showed most of the older immigrants possessed a foreign accent; even though the 6% was considered to own authentic pronunciation.

Marinova-Todd (2003, as cited in Tokudome , 2010) evaluated 30 adult second language learners from 25 countries about their English proficiency. All of them were tested regarding pronunciation and grammar knowledge. Although most performed with a nonnative proficiency speaker, a few reached a native-like proficiency. Marinova-Todd concludes “It could be argued that while age should not be completely ignored, its effects should be considered together with other cognitive and affective factors-...Therefore, it seems that how we learn L2s is more important for L2 ultimate proficiency than when we learn them” (p. 134).

These studies visibly reveal that native-like pronunciation and native-like grammar are accessible still after the CP. High motivation, high exposure to SL and intensive training are factors that play a very important role in achieving a native-like proficiency. Thus, the CP cannot be considered to be the only factor in affecting a SL acquisition proficiency. But according to the studies, we have to recognize that learning a second language during this period is most likely to achieve a native-like proficiency.

## **2.5 Types of Bilingual Education**

There are different types of BE. The most common are Transitional Bilingual Education, Dual language or Two-way bilingual education, and Maintenance and Bilingual Immersion Education. Each type of BE has different characteristics. These types are discussed in the following paragraphs.

Transitional Bilingual Education (TBE) according to Colin (1996) is the most common program used in the United States. The aim of this type of BE is assimilationist, to increase the use of English and decrease the use of the mother tongue. In TBE programs students are allowed to use their mother tongue; teachers are needed to be bilingual in order to give instructions in English (60%) and in the first language (40%). Some subjects are

taught in the second language and literacy instructions are given in their native language. Brisk (1998) argues that literacy in their native language is fundamental for the development of reading and writing in English. This kind of instruction is used for 1 or 3 years until the student is proficient enough in English to be changed into a mainstream program where all subjects will be taught in English.

Another type of BE is the Dual language or Two-way bilingual education. This type involves 50% of majority language students and 50 % of minority language students in the same class. The goal of Two-way immersion is to develop bilingual, biliterate and bicultural children (Baker, 1996). Being students with different mother tongues working together encourages children to learn and respect their classmates' cultures. The use of the minority language and the majority language in the classroom is equal. There are two bilingual teachers of each language in one group. All subjects are taught in both languages equally. In this type, fluency is developed in two languages for both sets of students (Brisk, 1998). Literacy is acquired in both languages either simultaneously or with an initial emphasis on native language literacy (Colin, 1996).

A third type of BE is Maintenance or Heritage Language. This type aspires to develop native language of the students and a positive attitude towards their native culture while they are achieving proficiency in English (Brisk, 1998). The main goal is to develop bilingualism. Literacy needs to be developed in both languages to achieve this goal, first in the native language then in the second language. A characteristic of this type (Colin, 1996) is that the first language will often be used for approximately half or more of curriculum time. The courses taught in a certain language will vary from grade to grade as well as from curriculum to curriculum.



Finally, the Bilingual Immersion Education type will be presented. The aim of this model is to develop English as a second language. Most of the instruction is given in English except for the first hour in which the native language is used to explain key concepts and native language literacy. The English classes are focused on the concepts that have been already explained in their native language (Gerster et al, 1992). Teachers are bilingual and allow students to use their native language although they are instructed in English. This model can be used from kindergarten or in primary school when the child has attended a Spanish kindergarten. This is also a transitional model, when students are proficient in English they are transferred to mainstream classes (Brisk, 1998).

Dual language or Two-way bilingual education and Maintenance are strong forms of education for bilingualism and biliteracy. Both promote a bilingual education using a greater or lesser amount the mother tongue of the students. These types emphasize the students' positive attitudes in the direction of their own or classmates' culture. Although, Transitional Bilingual Education and Bilingual Immersion Education are models of bilingual education, they attempt to develop English as a second language instead of developing bilingualism. Even though they have different goals, all of them are used for bilingual education.

## **2.6 Chapter Conclusion**

As a conclusion, BE is defined as the use of two languages for instructional purposes (Freeman, 1998). Although, there are different definitions of BE, most of them agree that this is the development of two languages; however, this process is for educational purposes. In many cases, a bicultural perspective is built through this type of instruction. According to Brisk (1998), the colonization in the United States influenced significantly in the beginning of BE. It started as a means of negotiation among different countries. In 1960's, it was a

solution for equal education opportunities after the civil rights movement in the United States.

BE in Mexico initiated with Spanish-Indigenous language education. This was a program developed by the *Secretaria De Educación Pública* in 1978. The government, instead of looking for a real bilingual process in which students could grow both languages, the main purpose was to introduce Spanish, avoiding a bicultural growth. The Spanish-English BE began to be implemented in secondary schools until the 90's when the primary level included this issue. At the beginning it started in 5 states but for 2009 there were 21. Public education has not used BE appropriately. As said by Mercau (2007, as cited in Farley, D., 2009), the deficient points in public BE are the curriculum, the teachers, the equipment, and the number of students. On the other hand, in an ETL university, teachers mentioned that BE in private schools show certain advantages such as the number of language classes, teachers' proficiency, subject content and parents' interest.

There are varied theories related to BLA. Some of them maintain that the mental process of acquiring a second language is separate from the first language but the process of both languages comes from the same central processing system. This is why a monolingual child differs from a bilingual. At the beginning of acquiring the two languages children can seem to not improve but when both languages have been developed the bilingual child has certain advantages over the monolingual.

The critical period (CP) is a relevant factor that influences the first language acquisition (Lenneberg, 1967). But in accordance with some studies, this period also has an effect on a second language acquisition (SLA). The studies showed that gaining a SL during the CP the child is more likely to have a native-like pronunciation and a native-like grammar.

In addition to this, other studies have demonstrated that some adult learners of a second language as well as young learners achieved a native-like proficiency. This gives evidence of some other factors shaping the competence of an SL adult learner such as motivation, exposure to the SL and the intensity of the training. However, the CP theory continues as the main cause of successfully developing a second language.

Inside BE there are diverse types. Transitional Bilingual Education, Dual language or Two-way bilingual education, Maintenance and Bilingual Immersion Education are the most common. The Transitional Bilingual Education and the Bilingual Immersion Education are models that attempt to develop English as a second language instead of developing bilingualism. The Dual language or Two-way bilingual education and the Maintenance are models that do not just encourage a bilingual education; they also persuade the expansion of a good attitude towards their mother tongue' culture and their classmates' culture.

With these theories in mind, the following chapter will describe the methods used in this study to create the survey of BE schools in Puebla.

## **CHAPTER THREE: STUDY METHODOLOGY**

### **3.0 Chapter introduction and overview**

As it has been explained in previous chapters, this project aims to look for the different types of bilingual education used in 10 kindergartens of Puebla. This study also intended to find the different characteristics that each type of bilingual education has. In this chapter the data collection procedure and the data analysis, which were done in order to answer the research questions, will be explained. A table of the kindergartens' characteristics will be also shown in this chapter.

### **3.1 The study subjects**

“Curriculum is defined (...) to include all the relevant decision making process of all the participants. The products of this decision making process generally exist in some concrete form and can be observed and described: for example policy documents, syllabuses, teacher-training programmes, teaching materials and resources, and teaching and learning acts” (Johnson, 1989, p1).

Curriculums are used in schools to provide a framework that will help the teacher to achieve what activities are more suitable in certain situations then it would help students to learn proficiently in an established context. We can say that a curriculum will help to improve the organization of a course, the creation of the teaching materials and the process that the teacher should follow to attain the learning objectives .

There are cases in which teachers and principals worked together to create curriculums. Therefore, curriculums will meet teacher, principal and institution's needs. It would be created based on different opinions. Schools use curriculums as a guide of what and how to teach using certain approach, certain grade and content.

### 3.2 Data handling

This section provides a description of the instruments I used to classify the characteristics of the kindergartens I looked at in the study.

#### 3.2.1 Kindergartens description

Table 3.1 *Instrument 1 used for the classification of kindergarten characteristics*

Kindergartens	Socioeconomic Level	Costs	Infrastructure
Kinder 1			
Kinder 2			
Kinder 3			
Kinder 4			
Kinder 5			
Kinder 6			
Kinder 7			
Kinder 8			
Kinder 9			
Kinder 10			

Table 3.1 shows the instrument I created to classify and organize the data from the kindergartens I examined. In total I looked at 10 schools. The following table shows the second instrument we created to further classify the characteristics of the kindergartens studied.

Table 3.2 *Instrument 2 used to classify the characteristics of the kindergartens*

Kindergartens	No. of Students	Schedule	Subjects
Kinder 1			
Kinder 2			
Kinder 3			
Kinder 4			
Kinder 5			
Kinder 6			
Kinder 7			
Kinder 8			

Kinder 9			
Kinder 10			

### 3.2.2 Data collection procedure

In order to answer the research questions that have been presented in the first chapter, 10 kindergartens were visited. These 10 bilingual kindergartens were in Puebla. I arrived to the schools as possible future clients. This means that I asked for the requirements, the costs and the type of BE they use as if I wanted to enroll our daughter. In this way the kindergartens willingly provided us with the information required. After I finished the visits around the 10 kindergartens, the information I got was compared to know what types of BE they used.

I visited just 10 kindergartens as a consequence of a matter of time. As student, teacher and father I was not able to spend much time to do the research. That is why I used the information of 10 kindergartens. These schools were visited in the morning because this is the schedule in which they were available and I could talk to the principles. In addition to this, I, the researcher, had been working in the afternoon so the morning was the perfect time to do the visit.

### 3.3.1 Data analysis

The data analysis consisted of a number of steps. First, I looked in the information that the kindergartens provided us. I compared the information in order to find the type of BE they used so I could classify what types are used and what characteristics they have. Then I used bar graphs in Microsoft Excel to manage the data. They are one the most frequent types of data management systems used to display data. They are also identified as "column charts". Bar graphs are commonly used to show amounts or the number of times a value occurs. These types of graphs make it easier to see the differences of the data compared. Therefore I used

this form of graph to organize the different types of BE. I applied this method because in this way the different types can be seen easily.

### **3.4 Chapter conclusion**

For answering our research questions I visited 10 bilingual kindergartens. I asked for their information about cost, schedule, requirements and curriculums as I was possible customer. I used tables to compare the kindergartens'. As we already know curriculums are used in schools as a guide of what and how to teach. Therefore curriculums were our principle data source to know what type of BE they use. In the next chapter will present what types of BE they used and what their characteristics were. I will present the results using bar graphs created in Microsoft Excel.

## CHAPTER FOUR: RESULTS

### 4.0 Chapter introduction

The previous chapter describes the subjects associated to the research methodology. Also I gave the steps that the procedure followed to gather the data. Therefore, in this chapter I will display the findings of the study. Finally, I will demonstrate and give a description of the data using graphs, having as intention to show the results.

### 4.1 Research questions

The research questions are shown below since all the data with which they will be answered is shown in this section.

RQ1- What are the different types of bilingual education used in the kindergartens examined in the study?

RQ2 -What are the different characteristics of each type of kindergarten?

### 4.2 Results

As I mentioned in Chapter 3, I used three tables to classify the characteristics that the kindergartens had. Therefore, now I present these tables but with the necessary information.

Table 4.1 *Instrument 1 used for the classification of kindergarten characteristics*

Kindergartens	Costs		Infrastructure	
<b>Kinder 1</b>	Registration	\$3, 900	<ul style="list-style-type: none"> <li>❖ Toy library</li> <li>❖ Computer room</li> <li>❖ Classroom</li> <li>❖ Bathrooms</li> <li>❖ Patio</li> </ul>	
	Tuition	\$1, 470		
	Monthly payments	10		
<b>Kinder 2</b>	Registration	\$4, 740		
	Tuition	\$2, 170		
	Monthly payments	11		
<b>Kinder 3</b>	Registration	\$3, 500	<ul style="list-style-type: none"> <li>❖ Music room</li> <li>❖ Computer room</li> <li>❖ Classroom</li> <li>❖ Bathrooms</li> <li>❖ Patio</li> </ul>	
	Tuition	\$1, 700		
	Monthly payments	12		
<b>Kinder 4</b>	Registration	\$5, 410		<ul style="list-style-type: none"> <li>❖ English classroom</li> <li>❖ Spanish classroom</li> </ul>
	Tuition	\$2, 485		



	Monthly payments	10	<ul style="list-style-type: none"> <li>❖ Music room</li> <li>❖ Psicomotorroom</li> <li>❖ Multipurpose room</li> <li>❖ Audiovisual room</li> <li>❖ Computer room</li> <li>❖ Classroom</li> <li>❖ Bathrooms</li> <li>❖ Patio</li> <li>❖ Library</li> </ul>
<b>Kinder 5</b>	Registration	\$2, 600	❖ Computer room
	Tuition	\$1, 300	❖ Classroom
	Monthly payments	10	<ul style="list-style-type: none"> <li>❖ Bathrooms</li> <li>❖ Patio</li> <li>❖ Library</li> </ul>
<b>Kinder 6</b>	Registration	\$2, 300	❖ Computer room
	Tuition	\$1, 500	❖ Classroom
	Monthly payments	12	<ul style="list-style-type: none"> <li>❖ Bathrooms</li> <li>❖ Patio</li> </ul>
<b>Kinder 7</b>	Registration	\$4, 579	❖ Computer room
	Tuition	\$2, 568	❖ Classroom
	Monthly payments	10	<ul style="list-style-type: none"> <li>❖ Bathrooms</li> <li>❖ Patio</li> <li>❖ Library</li> </ul>
<b>Kinder 8</b>	Registration	\$2, 500	❖ Classroom
	Tuition	\$1, 800	❖ Bathrooms
	Monthly payments	10	<ul style="list-style-type: none"> <li>❖ Patio</li> <li>❖ Children's house</li> </ul>
<b>Kinder 9</b>	Registration	\$7, 400	❖ Music room
	Tuition	\$3, 650	❖ Computer room
	Monthly payments	10	<ul style="list-style-type: none"> <li>❖ Classroom</li> <li>❖ Bathrooms</li> <li>❖ Patio</li> <li>❖ Library</li> <li>❖ Gym</li> </ul>
<b>Kinder 10</b>	Registration	Information not provided	❖ Library
	Tuition	Information not provided	❖ Computer room
	Monthly payments	Information not provided	<ul style="list-style-type: none"> <li>❖ Patio</li> <li>❖ Classrooms</li> <li>❖ Bathrooms</li> </ul>

Table 4.1 shows the instrument I created to classify and organize the data from the kindergartens I examined. The following table shows the second instrument I created to further classify the characteristics of the kindergartens studied.

Table 4.2 *Instrument 2 used to classify the characteristics of the kindergartens*

<b>Kindergarten</b>	<b>No. of Ss</b>	<b>Schedule</b>	<b>Method</b>	<b>Subjects</b>
<b>s</b>		<b>e</b>		

<b>Kinder 1</b>	16	8:45 am 1:00 pm	Active/Bancubi	<ul style="list-style-type: none"> <li>❖ Computers</li> <li>❖ Artistic</li> <li>❖ Gymnastics</li> <li>❖ Formation of education values</li> <li>❖ Logical mathematical reasoning</li> <li>❖ Sports</li> </ul>
<b>Kinder 2</b>	15	9:00 am 1:30 pm	Artesofia	<ul style="list-style-type: none"> <li>❖ Computers</li> <li>❖ Science projects</li> <li>❖ English</li> <li>❖ Spanish</li> <li>❖ Sports</li> </ul>
<b>Kinder 3</b>	15	8:00 am 1:30 pm	Information not provided	<ul style="list-style-type: none"> <li>❖ Music</li> <li>❖ Computers</li> <li>❖ Hawaiano/Tahitiano</li> <li>❖ Tae Kwon Do</li> <li>❖ Football</li> <li>❖ Sports</li> </ul>
<b>Kinder 4</b>	20	7:45 am 1:00 pm	Information not provided	<ul style="list-style-type: none"> <li>❖ <u>Spanish Subjects</u></li> <li>❖ Personal and social development</li> <li>❖ Language and communication</li> <li>❖ Physical and healthy development</li> <li>❖ Exploration and understanding of the world</li> <li>❖ Artistic expression and appreciation</li> <li>❖ Mathematical thinking</li> <li>❖ <u>English subjects</u></li> <li>❖ Oral instructions</li> <li>❖ Language</li> <li>❖ Quantity and space skill</li> <li>❖ Music</li> <li>❖ Fine motor skills</li> <li>❖ Motor skills</li> </ul>
<b>Kinder 5</b>	18	8:30 am 1:00 pm	Information not provided	<ul style="list-style-type: none"> <li>❖ Music</li> <li>❖ Computers</li> <li>❖ Reading circle</li> <li>❖ Brain gym</li> <li>❖ Values education</li> <li>❖ Sports</li> </ul>
<b>Kinder 6</b>	10	9:00 am 1:00 pm	Information not provided	<ul style="list-style-type: none"> <li>❖ Psicomotoreducation</li> <li>❖ Physicaleducation</li> <li>❖ Artistics</li> </ul>
<b>Kinder 7</b>	17-25	8:30 am 1:30 pm	Information not provided	<p><u>Spanish Subjects</u></p> <ul style="list-style-type: none"> <li>❖ Personal and social development</li> <li>❖ Language and communication</li> <li>❖ Physical and healthy development</li> <li>❖ Exploration and understanding of the world</li> <li>❖ Artistic expression and appreciation</li> <li>❖ Mathematical thinking</li> <li>❖ Habits</li> <li>❖ Faith education</li> <li>❖ Computers</li> </ul>

				<ul style="list-style-type: none"> <li>❖ Songs and games</li> <li>❖ Physical education</li> <li>❖ Extracurricular activities</li> <li><u>English subjects</u></li> <li>❖ Oral instructions</li> <li>❖ Language development</li> <li>❖ Social and personal development</li> <li>❖ Intellectual development</li> <li>❖ Arts development</li> <li>❖ Physical development</li> <li>❖ Phonics</li> </ul>
<b>Kinder 8</b>	16	9:00 am 1:00 pm	Information not provided	Information no provided
<b>Kinder 9</b>	24	9:00 am 1:30 pm	Traditional/Active	Information no provided
<b>Kinder 10</b>	18-25	9:00 am 1:30 pm	Information not provided	<ul style="list-style-type: none"> <li>❖ Music</li> <li>❖ Art Workshop</li> <li>❖ Library</li> <li>❖ Computer</li> <li>❖ Educational Video</li> <li>❖ Psychomotor</li> <li>❖ Physical Education</li> <li>❖ Spanish</li> </ul>

The following table shows the third instrument I created to further classify the characteristics of the kindergartens studied.

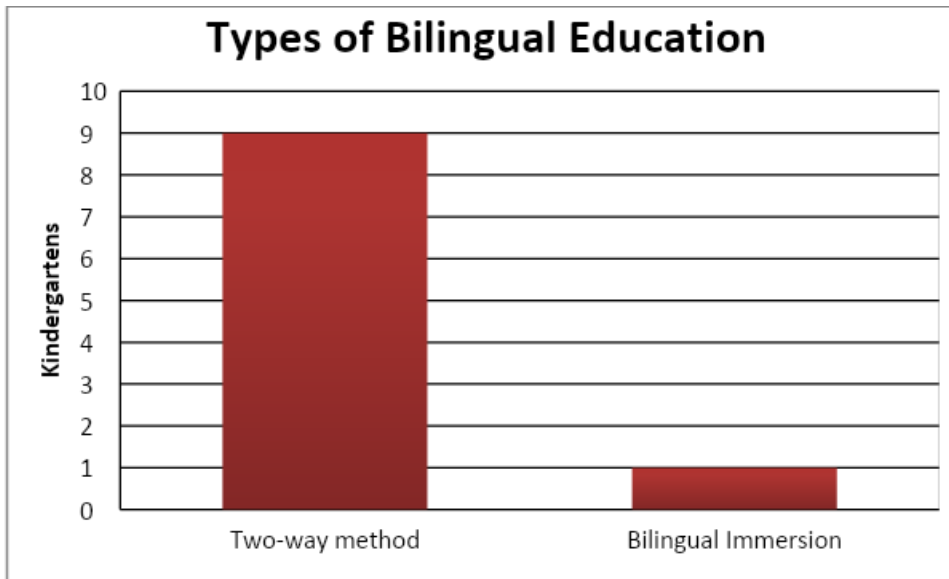
Table 4.3 *Instrument 3 used to classify the characteristics of the kindergartens*

<b>Kindergartens</b>	<b>Workshops</b>	<b>Extended schedule</b>	<b>Cost</b>	<b>Lunch</b>	<b>Teachers</b>
<b>Kinder 1</b>	Judo Swimming	7:45 am 4:00 pm	\$15 per hour	\$25 per day	Head teacher Assistant teacher
<b>Kinder 2</b>	Violin First communion	7:30 am 6:00 pm	\$220 monthly	Information no provided	Head teacher
<b>Kinder 3</b>	Theater First aids	4:00 pm	\$200 monthly	\$500 monthly	Head teacher Assistant teacher
<b>Kinder 4</b>	Language Motor skill development Perception Gymnastics Soccer Pre-ballet	4:00 pm	\$610 monthly	Information no provided	Head teacher
<b>Kinder 5</b>	Music Homework Chess Painting Chorus	4:30 pm	\$1,480 monthly	\$40 per day	Head teacher

<b>Kinder 6</b>	Tae Kwon Do	Information no provided	Information no provided	\$25 per day	Head teacher Assistant teacher
<b>Kinder 7</b>	Modern dance Tae Kwon Do Soccer	2:30 pm	\$700 per semester	Information no provided	Head teacher
<b>Kinder 8</b>	Motor Art Yoga German Theater Reading Cuisine	3:30 pm	\$300 monthly	\$420 monthly	Head teacher Assistant teacher
<b>Kinder 9</b>	Gymnastics Computers Music	Information no provided	\$450 monthly	Information no provided	Head teacher Assistant teacher
<b>Kinder 10</b>	<u>Sports activities</u> Fitness Athletics Basketball Baseball Football Sport initiation Skills development workshop Volleyball <u>Art activities</u> Ballet Choir Regional dance Music Theater	Information no provided	Information no provided	They do not have this service	K1- Head teacher Assistant Teacher K2,3- Head teacher

As I mentioned before, this thesis had as main purpose to give information about types of bilingual education used in 10 kindergartens in Puebla. The tables in this chapter answer RQ2 – the characteristics of the kindergartens (discussed further in the final chapter). In order to answer RQ1 (What are the different types of bilingual education used in the kindergartens examined in the study?) I will present a bar graph produced in Microsoft Excel. In this bar graph I show the data collected about what the types of bilingual education are applied in each of the ten kindergartens visited.

Figure 4.1 *Types of bilingual education (n =10)*



In Figure 4.1 we can see the 10 kindergartens and what type of bilingual education is used in each school. Although I visited 10 kindergartens, I just found two different types of BE. The first one is the two-way method then we have the bilingual immersion (see 2.5)

### **4.3 Chapter conclusion**

In this chapter, I described and explained the tables that I used to compare kindergartens characteristics and the graph made to organize the types of BE. All these were used in order to answer the research questions. In the following chapter I will draw general conclusions of this research and I will discuss the significance and the limitations for further research.

## **CHAPTER FIVE: SIGNIFICANCE**

### **5.0 Chapter overview**

In this chapter I answer RQ1 using the information presented in chapter 4. The significance of and the conclusions of the study will be shown. I will talk about experiences I had as a researcher during this project. In the same manner I will mention some suggestions for further research and future researches.

### **5.1 Results and their significance**

In the previous chapter I presented the tables we used to gather the necessary information about the kindergartens' characteristics. I showed the information in graphics in order to get a better idea of the results. Those tables contain the characteristics from the 10 kindergartens of Puebla I visited.

Using those tables we could find different information. I noticed that according with parents' necessities most kindergartens are providing the service of "*horario extendido*" which means that you can leave your son/daughter before the normal schedule and you can pick up your child 2 or 3 hours after the official end of day. For these 2 or 3 extra-hours they have workshops where the child can do his homework or learn something new while having fun. According with their costs (registration, tuition and monthly payments) we can see that most of these kindergartens are for families from a middle socioeconomic level. Because these 10 kindergartens are private schools, they offer a small number of students in one classroom.

The average of students per classroom was 17. In 7 of these schools there is a head teacher and an assistant teacher in one classroom. We could identify two types of bilingual education used in these ten kindergartens.

## **5.2 Answers to research questions**

Remembering Research Question 1: **What are the different types of bilingual education used in the kindergartens examined in the study?**

After examining the tables I filled with the kindergarten's information and making the graphic about the types of bilingual education these kindergartens used, I can answer my research question. In the graphic I wrote the two types of bilingual education that were found. One type was the two-way bilingual method, used in 9 of 10 kindergartens. The second method was the total immersion applied just in one school.

### **Aims**

As stated in Chapter 1 the aims of this study were to analyze the different types of BE used in kindergartens in the research location and investigate the different characteristics of each type of BE.

#### **5.3.1 Accomplishment of aims**

In the case of the first aim: to analyze the different types of BE used in kindergartens in the research location was accomplished through looking for information, reading books when I was doing chapter 2. About the second aim: to investigate the different characteristics of each type of BE was accomplished at the time I analyzed the different types of BE.

#### **5.4 Personal reflection on the research project**

This point is dedicated to express our personal experiences in the process of writing our thesis project. I am going to describe the procedure of this thesis since the beginning. The first part

is how I felt before starting. Then I will give details about how easy and difficult was each chapter. Finally, I will mention the consequences that this project has brought to our lives.

Since I started the ELT program, I knew I had to write a thesis, and that caused us some fear and apprehension. At the beginning, I thought that it would be the most difficult thing I had ever done. However, when the thesis seminar started our perspective changed.

Although it has not been so difficult, I faced some problems at the beginning. The first problem was that I was not very sure about the topic I wanted to talk about. I had a lot of possible topics, but I did not know how they could help us. I thought about our likes and our future plans. I concluded that I liked working with children and also that I wanted to open a bilingual kindergarten. So I had to know the basis of bilingual education. I also had curiosity to know if the bilingual kindergartens were really bilingual. Those were some reasons that encouraged us to choose this topic. However, I was worried about how to start. I had taken classes about academic writing in the program; however, I felt that I would not be able to write a document with a large number of pages on our own. However, since the thesis is compulsory, we moved ahead with it.

Once we defined our topic, we started the project. We were nervous about how the first part would be. We started with the outline of chapter number 1 which was easy. We got a good grade on our first chapter and that made us feel confident to continue. That was not complicated. Until that moment, we had no significant problems. Chapter two was the most difficult of all. We had some problems when looking for information. Although there were books that contained information, we did not find the information we needed. After that we started to write the chapter. We faced a lot of difficulties because sometimes we did not know how to link the ideas. Also, when we thought we had finished, we realized that we did not have enough content.



The third chapter was the easiest. We finished it quickly. The next chapter gave me some difficulties because I did not have clear ideas about how to express my results. So, it took a lot of time. Once I decided how to show the results the chapter became easier. The fifth chapter has been a great experience. Firstly because I knew it was the last chapter and because getting closer to the end of the thesis I will get closer to the end of the university. The end of this project has been satisfactory and had given us a great experience. Living and working together had made us organize and gave us confidence when writing.

### **5. 5 Limitations of the research**

As we know, not all can be done as we want, and with this study I could not do and use everything I wanted. Money and the available time were relevant obstacles for this study. I could analyze just 10 kindergartens. This was a limitation because I could not get a significant amount of the total percentage of the kindergartens in Puebla. Another limitation was that I was working at the time I was doing the research then I could not come back at any time for a guided appointment or for an appointment with the principal in order to get better information about the kindergarten. As a last limitation I have to say that the results are not generalizable. They are only from a local area: Puebla City. Therefore, we cannot assume that all or most of bilingual kindergartens use the mixed-mode method. But as the results are very satisfactory we can say that the sample was enough for this study.

### **5. 6 Suggestions for further research**

For future researchers I have three recommendations. The first recommendation I would give can be to analyze more than just 10 kindergartens. Analyzing a bigger number of schools probably not just two types of bilingual education would be found. The study would have a

better variety of BE methods. I did not have enough time for doing our research project therefore I was not able to apply more instruments. To observe bilingual classes, could be our second recommendation. If future researchers have the opportunity to observe that could be something that would help to know how those methods are applied and how students react. A third and last recommendation would be to expand the literature review chapter. Look for more terms and enlarge their definitions. Having more terms would help to understand better bilingual education.

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