

VISIBLE THINKING AND THE IMPORTANCE OF ITS IMPLEMENTATION
IN PRESCHOOL EDUCATION

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ABSTRACT

This monograph is based on visible thinking, it gathers information about its concepts, generalities, background, making thinking visible through the process of learning English, thinking routines and culture of thinking through the research of reliable sources and authors by identifying their previous knowledge about the topic and the importance of its implementation in preschool education. Visible thinking refers to the development of the learners' thinking skills through the use of different resources in the classroom such as thinking routines where learners are able to learn through visual activities. "To make the most of this useful and valued resource, educators, need to comprehend, model and spread an awareness of the effective ways of using such routines in the classroom" (Gholam, 2018, p.161). Through the analysis of the information collected, the aim is to make a proposal to implement an activity in preschool education that allows to improve the English learning process in this specific level of education where learners start awakening their thinking capabilities and English while they are acquiring the basis of the foreign language.

Keywords: Visible thinking, thinking routines, ability to think, children's thoughts, English learning

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CHAPTER 1

INTRODUCTION

Preschool is one of the most important stages in the process of learning for children, in this stage they start to interact with their environment and different elements implied in it, therefore within this interaction they discover the different factors that surround them as well as the role they might play in a society. According to Anderson et al. (2003), early development chances, set up a fundamental basis for the learning process, health and wellness of children. Some stages of the development of children are auto regulation, initial relationship making, obtaining new knowledge as well as the development of skills. During this process they start collecting and receiving information and the role developed by a teacher in this moment is essential.

Furthermore, some bilingual preschools institutions in Cajica – Cundinamarca, children are facing the lack of basis to start their process through the comprehension of the English language as a foreign language. For this reason, this monograph is mainly based on the topic visible thinking.

The Visible Thinking Approach is an approach that aims to advance children's thinking skills, encourage thinking, and make thinking visible. Any observable concrete representations that document the development of children's questions,

thoughts, and interpretations with visible thinking can be obtained. Through this documentation, teachers can enable children to participate by using thinking routines, which are short and mini strategies that develop and deepen the thinking of children. There are many (more than 30) thinking routines available for each educational level in Project Zero's publications. (Keleş & Yurt 2019, p.118).

Visible thinking is a “researched-based approach developed by Project Zero and used across subjects and settings worldwide” (Harvard, Graduate school of education, 2019). What is more, there are some thinking routines which support the visible thinking, these routines are the “cornerstones for engaging and involving students in their classroom activities and tools for teachers to follow their students’ thinking processes that help them discover their knowledge, misconceptions, reasoning ability, and understanding” (Dajani 2016, p.2).

Through this monograph based on different references, the aim is to confirm the need to use Visible Thinking in the process of learning English in preschool education by analyzing the different points of view from different authors and how the implementation of this practice will help students to improve their level and strength each of their English skills, based on different reliable sources and authors, are going to be explained in this monograph the concepts of Visible Thinking.

Significance of the Study

The need of basing this monograph on the topic and problem previously described, is to understand the concepts and generalities as well as gathering information about perspectives and previous experiences concerning to Visible Thinking. The students of some bilingual preschool institutions in Cajica, are not acquiring basis to start their process through the comprehension of

the English language as a foreign language, that is why this proposal is very important to carry on. These students have a short road ahead to primary school, where they must be more independent English speakers, owing to the fact that most of them are going to continue their academic life at bilingual schools where is demanding to have a certain level of English in the first grade of primary, additionally it is important to start awakening and developing their thinking skills.

Although, the role of a teacher of English has many functions in the classroom, one of them is to try to stimulate thinking in their students among activities which awake their interest in the things around them and let them to externalize their thoughts through speaking, writing and drawing, because as Richhart & Perkins, 2008, said: “Learning is a consequence of thinking. Students' understanding of content, and even their memory for content, increases when they think through—and with—the concepts and information they are studying” (p.1). Therefore, this means that teachers daily need to work hard to make suitable the externalization of their thoughts and should be consistent with the modeling and encourage the students' processes, also the support of parents will help in the process.

Through the application of Visible Thinking through thinking routines, which according to Salmon (2010) “These are short, easy-to-learn mini strategies that extend and deepen students' thinking and become part of the structure of everyday classroom life” (p.133). Students may improve their skills, and the Visible Thinking will be noticed in their daily works developed in class and at home.

This proposal is reliable because through my experience as a teacher for many years in different levels of English and during the last three years. I had the experience to be a self-contained teacher in preschool, in Cundinamarca as well as teacher assistant in Los Angeles

California. Visible Thinking has allowed me to notice a huge improvement in the student's learning English process and their abilities to think. To show that Visible Thinking using thinking routines really helps the students to develop their thinking skills. This monograph gathers information about the topic to understand the concepts from the sources consulted, with the query of many authors who have researched and implemented the Visible Thinking and also analyzing all the different reliable sources.

For all the above mentioned as well as the statement of the problem, it is considered to be important to research about this topic in order to acquire knowledge about it and that it serves as a foundation for early childhood teachers.

Statement of the Problem

Some bilingual preschool institutions in Cajicá have an education problem going on, because although most of the teachers are bilingual and qualified, in this specific level of education the thought is that they should not be treated through a bilingual environment and also that is not necessary to start developing the thinking abilities of preschoolers, most of the teachers are used to teach like the “old school”, so they do not innovate, or they do not even have a knowledge or background about thinking routines, and the teaching process is carried out by readiness activities, such as coloring books and some handcrafts and the preschoolers are not developing their thinking skills.

Dewey (1933) cited by Farrell, T. (2014, p.3) states;

No matter how much an individual knows as a matter of hearsay and information, if he has not got attitudes and habits of this sort, he is not intellectually educated. He lacks the rudiments of mental discipline. And since these habits are not a gift of nature (no matter

how strong the aptitude for acquiring them); since, moreover, the casual circumstances of the natural and social environment are not enough to compel their acquisition, the main office of education is to supply conditions that make for their cultivation. The formation of these habits is the Training of Mind. (p. 28)

To teach to this age is very important to awake the student's creativeness and critical thinking by introducing Visible Thinking through thinking routines, so the students feel motivated and comfortable listening to a foreign language, in this case English which is not their mother tongue. As we can confirm from the experience shown in the article of Angela Salmon (2016) "This approach gives shape to an emergent curriculum, because it makes children's thinking, needs and interest visible to the teacher. Not only that, later we will see how uncovering children's thinking helps the teacher identify children's wonderings" (p.16).

In these preschool institutions sometimes it is difficult to teach a foreign language because these students are aged from two to six and some of them do not speak fluently even in their mother tongue, also because they feel confused when the teacher is speaking English in the classroom because they do not realize that a different language exists. Additionally, to this their parents' support is not suitable because they do not have time to spend with them or because they do not handle the language making difficult the teacher's labor. Visible Thinking Approach as Salmon (2016) mentions, "It provides educators with a flexible framework that fosters students' thinking and depends their understanding. It leads teachers to create cultures of thinking in their classrooms, showing students that thinking is valued, promoted, and visible." (p.2).

Other authors state:

Visible Thinking is achieved by observing how students internalize their thoughts in English language classrooms. It is an approach to teaching and learning that emphasizes the use of thinking routines and documentation to make thinking more visible in classrooms. Thinking routines are easy-to learn structures, mostly taking the form of simple sets of questions or metaphors that naturally involve students in thinking processes. These routines may expand the students' repertoire of cognitive strategies, because the routines constitute a major form of organizing memory and thinking (Dajani 2016, p.4).

Therefore, it will lead them to learn how to think effectively through thinking routines suitable for their age. The problem is based taking into account the importance to understand the concepts, characteristics, scope and generalities of Visible Thinking in early childhood through the question, *how to improve the process of learning English as a foreign language in preschool learners by implementing Visible Thinking in the classroom?*

Objectives

General Objective

To recognize the importance of the implementation of Visible Thinking in the learning process of English as a foreign language in preschool education.

Specific Objectives

To identify the previous knowledge and experiences and concepts about Visible Thinking through the research of documents and projects about the topic mentioned by the analysis of its evolution and dimensions in English learning through reliable sources.

To make a proposal about how to implement Visible Thinking in learning strategies for the foreign language acquisition in preschool education.

CHAPTER 2

LITERATURE REVIEW

Visible Thinking Generalities

In the beginning, Visible Thinking was an initiative of “Project Zero”, which means that through the “Harvard School of Education”, its group of researchers began to investigate about thinking and other dispositions through the learning process in every level. As it is stated by Dass, Arumugam, Dillah, & Nadarajah, (2016), since 1967, the foundation of the project is to research practices in learning processes, including students and institutions, understanding, improving learning as well as thinking, are part of its goals. Thinking process between educators and students may be improved when this process is done in a visible manner through learning.

Some authors who have research in different manner and contexts on Visible Thinking, have proposed various definitions of Visible Thinking, in this chapter, some of these definitions are going to be described and also a table with some of the authors concepts and conceptions about Visible Thinking is going to be displayed (see table 1).

Table 1 *Visible thinking concepts –own creation*

Concept	Author
“Visible Thinking is a research-based approach that looks into how we can encourage learners’ engagement, independence and understanding”	(Papalazarou, C. 2015, p.37).
“The Visible thinking methodological approach is a framework that enhances students’ abilities regarding the use of thinking as a strategy for learning, supported by the use of “thinking routines””	(Paredes, J. C., Leiva. 2017, p.4).
“VT is a flexible framework for enhancing and enriching classroom learning”	(Dajani, M. 2016, p.4)
“The Visible Thinking Approach is an approach that aims to advance children's thinking skills, encourage thinking, and make thinking visible. Any observable concrete representations that document the development of children's questions, thoughts, and interpretations with visible thinking can be obtained”	(Keleş, S., & Yurt, Ö. 2019, p.118)
“The central idea of Visible Thinking is to make thinking Visible due you learn better what you can see and hear”	(Parada Rodríguez, N., & Ruiz de Galarreta Galán, I. 2015, p.237)
“The Visible Thinking approach to teaching and learning uses thinking routines and documentation created by children or teachers to make the thinking process more visible in the classroom in a natural, manageable way”	(Salmon, A. K. 2010, p.27)

Furthermore, according to Parada & Ruiz (2015), Project Zero was founded to understand and improve knowledge. Moreover, the project Visible Thinking, which is part of Project Zero, was held in 2005 by a group of researchers, through years of investigation about children thinking and learning. The main idea of the project was to make thinking visible, because learning is easier through observing and listening. To promote learning in different areas along with the development of thinking in students, there were designed the thinking routines. “The use of the Thinking Routines tries to turn the classroom into a place where the group and individual thinking is valued, visible and encouraged as a part of the daily experience of the students” (Parada & Ruiz, 2015, p. 237).

Visible Thinking is an approach which is suitable, handle and flexible to use in the classroom to teach any subject and it is a way to help students to achieve their goals, also fostering in each of them a critical thinking, giving freedom to express their ideas about what is around them, as well as acquiring skills and abilities to strengthen their way of thinking in a deeply and meaningful way, due to fact that all kind of learning material is suitable and applicable in all levels of education if the target is to apply all the dispositions and routines of Visible Thinking.

Furthermore, some authors stated:

What, exactly, is Visible Thinking? Here’s a technical definition: Visible thinking refers to any kind of observable representation that documents and supports the development of an individual’s or group’s ongoing thoughts, questions, reasons, and reflections. Mind maps, charts and lists, diagrams, worksheets all count as visible

thinking if—and this is an important if—they reveal learners’ unfolding ideas as they think through an issue, problem or topic. (Tishman & Palmer, 2005, p.1).

Visible Thinking, aims to apply different types of routines in the classroom to nourish and promote children and adolescents thinking skills from preschool to high school. According to Keleş & Yurt (2019), researchers team, quantify the positive aftereffect of instruction programs going on through preschool education to high school. Part of these investigations is the Visible Thinking, that states that the outcome of thinking is learning. Through the learning of any subject or topic, is possible to implement Visible Thinking in the classroom, and it has been evident that is applicable to any level of education.

For preschool learners it could be a meaningful experience to learn the basis of English as a foreign language through Visible Thinking, regarding to the fact that the process of learning is present in each step or level of education and there are always new things to learn through thinking. Ritchhart & Perkins (2008), stated that the aftereffect of thinking is learning. Students boost their knowledge and also their memory improves by thinking about the concepts and all the data that is being studied. If learning is a consequence of thinking, young learners are able to acquire knowledge while they are using their thinking abilities by just staring at a picture, a fragment of a photo, a piece of a puzzle and thinking through this or any kind of observation. According to Pinedo, García, & Cañas, (2018) “Visible Thinking is a flexible and systematic research-based approach to integrating the development of students' thinking with content learning across different subjects and educational levels” (p.2).

Furthermore, the article Visible Thinking in Action states:

The idea of Visible Thinking helps to make concrete what a thoughtful classroom might look like. At any moment, we can ask, "Is thinking visible here? Are students explaining things to one another? Are students offering creative ideas? Are they, and I as their teacher, using the language of thinking? Is there a brainstorm about alternative interpretations on the wall? Are students debating a plan?" (Visible Thinking in Action, n.d, para.5).

For the above mentioned, it can be inferred that is feasible to make a thoughtful classroom in different classroom levels and contexts. As it is evident, it is not something difficult to do in class and it is easy to implement; as teachers we can obtain more than when we are teaching a topic being the ones who lead the classroom, however with this approach not only the teacher but the students will be able in some manner to lead the development of the class, with the basis learnt about thinking and the previous practice of thinking in a meaningful way during all their learning process as well as awakening their inner leadership skills.

Visible Thinking may lead students to discover their innate ability to think, which will improve the way they acquire knowledge. To learn a foreign language, in this case English, preschool students tend to learn through imitation, but if they start learning English through Visible Thinking this approach and method will open their minds and will let them try to start thinking in the target language and the learning process will be meaningful. According to Tishman & Palmer (2005), Visible Thinking reveals a potential perspective of knowledge. Knowledge is alive, frequently molded and it cannot be defined by precise factors. As a result, each student is able to state ideas, thoughts and begin molding his/her own pattern of knowledge and in this case, it might be possible to achieve it by learning the simple basis of the foreign

target language.

In conclusion, summarizing some of the concepts and through my own perspective, it can be inferred that Visible Thinking is a flexible approach based on investigation, with the aim of including the thinking development of learners through the learning of content in any subject and educational level and the target to make thinking visible. It promotes the use of thinking and learning how to think as a technique for acquiring significant knowledge by the implementation of thinking routines.

Visible Thinking background

Visible Thinking might achieve to encourage students to learn English in a meaningful and easier way as well as to motivate them and make them feel comfortable during the class and make thinking visible. Previous studies or previous experiences from some authors regarding Visible Thinking are going to be briefly described in this chapter. Some of these studies showed different experiences and different contexts where Visible Thinking and thinking routines were applied; through the analysis of this information, it would be possible to give a closer look to the topic and recognize its applicability in different contexts, situations and different kind of students and educators, as well as the dimensions of thinking.

There are stated five dimensions of thinking, according to Marzano (1988), “Metacognition, Critical and creative thinking, thinking processes, Core thinking skills, the relationship of content area knowledge to thinking”. (p.17). Also as stated by Marzano (1988), metacognition concerns to the consciousness and domination of thinking; on the other hand, the topics that are predominant in thinking literature, are critical and creative thinking. A person’s thinking may be depicted as high or low, despite the singular abilities implicated. Moreover, it can be inferred that through domination of the processes involving thinking and how critical or

creative a person is, the first two dimensions, metacognition and critical and creative thinking, might be the foundation to start a thinking process, and in this context an activity involving Visible Thinking through thinking routines.

Furthermore, “thinking processes”, is another significant dimension, the mental setting of operations. Formation of concepts, decisions, investigation, and writing creation, are thinking processes, frequently rich, varied and convoluted, implicating the use of many thinking skills Marzano (1988). In addition, core thinking skills which is the fourth dimension as stated by Marzano (1988), can be described as the dimension which is vital for the other dimensions’ operation. Moreover, core thinking skills, are a way to perform specific tasks, such as analyzing arguments. In addition, the previous four dimensions briefly described, work at the same time, which means it is a process of thinking when they are applied in a simultaneously way.

The relationship of content area knowledge to thinking, which is the fifth dimension, as it is inferred in its name, content is intrinsic to knowledge and somehow are linked together while learning. According to Marzano (1988), many investigators think that abilities of thinking should not be and cannot be taught separately from content because of the fact that content is unable to be divided with cognition. In addition, it can be inferred that these dimensions proposed by Marzano, are suitable and are part of a cognitive processes where learning how to think is the main objective.

A previous study was carried out about “Using Thinking Routines as a Pedagogy for Teaching English as a Second Language”, by Majida “Mohammed Yousef” Dajani. 2019, during the school year 2014-2015. In this study six teachers were volunteers to implement Visible Thinking as thinking routines in fourth and fifth grade for almost a semester. During this study, the methodology used was qualitative research. According to Dajani (2016), the techniques used

were observation of classroom, field notes, recording videos, collection and discussion with teachers and students on their impressions about the thinking routines implementation.

This study was made to assess the commitment, understanding, and their research skills by the implementation of thinking routines in English language classrooms. As stated by Dajani (2016), the teachers involved in the project, stated that some thinking routines were more used than others in English classes. However, the use of these routines enhanced students' learning as well as acquiring the knowledge of new vocabulary and concepts. Through this result, it can be inferred that thinking routines, although they were not easy to implement at first, they showed positive results on students and educators.

A thinking routine was implemented and briefly described, as stated by Dajani (2016), in fifth grade the students were arguing about the conception of competition, they were asked to play the role of judges and choose a winner poster. The students stated three items or criteria to be evaluated, color, size and brightness. Color number one, size number two, and brightness number three. The students made a chart to identify the winner poster. The knowledge of the students became visible by their interpretations. Moreover, according to Dajani (2016), "Working in groups in this activity helped students discuss the concept with each other and dialogue their decision to reach the best poster based on the criteria they set together". (p. 8). As it can be inferred, this thinking routine boosted the students thinking and socializing abilities.

Furthermore, according to Dajani (2016), in English classrooms applying Visible Thinking gave the students a picture about great thinking, how it looked like and displayed how their commitment and participation allowed them to obtain wider learning and knowledge. Through the learning English process, Visible Thinking may become a great tool for teachers and educators in order to improve their teaching, due to the fact that students may start thinking

farther and deeper unleashing all their abilities and skills in the foreign language. Dajani (2016) also inferred that teachers had the opportunity to recognize areas where the students had good abilities or weaknesses in order to reinforce on those areas. Teachers of English stated that working using thinking routines was a great way to discover students' thinking, conceptions, expectations, attitudes and above all, misapprehension.

The research or study held by Sadiye Keleş, Özlem Yurt, 2019 "Making thinking visible in early childhood education: Visible Thinking approach" was aimed to demonstrate the importance of the implementation of Visible Thinking through thinking routines in early childhood education in recent years. As stated by Keleş & Yurt (2019), studies about thinking skills in early childhood, efficient teaching techniques in the development of thinking and conceptions of educators and implementation of thinking skills, are acquiring notably importance during the last years in Turkey. As an outcome also stated by Keleş & Yurt (2019), multifaceted foundation of thinking, relied on various theoretical basis, is still being tested by diverse dimensions with different academic practices.

Therefore, this study showed the great relevance and importance that thinking routines are gaining in early childhood contexts. Keleş & Yurt (2019), also stated that the result acquired on this study about implementing these not long, and repetitive mini techniques that are thinking routines with the objective of making thinking visible to educators and staff who works with children, thinking routines as a way of tool will allow the thoughtful features of educators and thinking skills in children. According to Keleş & Yurt (2019), whether educators implement thinking routines as a piece of the daily academic life to include it in the learning practices as well as in the assessment process of children in all of the development areas, can be a meaningful and significant achievement in the teaching of thinking. Furthermore, it can be concluded that,

taking into account the previous information, these routines showed positive outcome in the learning process.

Craig Mertens described different applications and conceptions on thinking routines in English as a foreign language classroom, in his paper named “Thinking routines in EFL classrooms”. His objective through this paper, was to make known thinking routines and the way they can be implemented in English learning. Making a classroom friendly to guide the learning of English as a foreign language, it is a goal that can be achieved by the implementation of Visible Thinking, as it is stated by Mertens (2018) “A way to help guide students’ thinking in the EFL classroom is by using “thinking routines” (p.195). Thinking routines, may allow to discover inner thoughts in students and they are suitable in EFL classrooms. Mertens (2018), also inferred that students performing thinking routines, are vigorously interacting and talking among them in order to collaborate on vocabulary and grammar. Subsequently, thinking routines not only awakened children’s thoughts but their socializing skills.

Additionally, according to Mertens (2018), investigators have recognized eight ways of thinking, they play an important role in understanding’s development. Through the use of these ways of thinking as a foundation, there can be built roads for learners for being innovative, clever and creative when they are using the language they are learning. “1. Observing closely and describing what’s there, 2. Building explanations and interpretations, 3. Reasoning with evidence, 4. Making connections, 5. Considering different viewpoints and perspectives, 6. Capturing the heart and forming conclusions, 7. Wondering and asking questions, 8. Uncovering complexity and going below the surface of things” (Mertens, 2018, pp.194,195).

Furthermore, these ways of thinking according to Mertens (2018), are a great starting point to support teachers and learners through the develop of their comprehension in the English

Foreign language classroom. These eight ways of thinking can be briefly described in order as: first stage to comprehend a new topic, shape ideas about what it is being found, presenting proof on facts to justify their position, using knowledge from the past to support what is being found, consideration and consciousness of different perspectives delivers deeper understanding, knowing what is the center or basis of what is being found, formulating questions is a continuous part in understanding development, and in the last way of thinking, it is expected that students recognize of events, stories, or thoughts their complexity.

R. Pinedo, N. García, M. Cañas from de University of Valladolid Spain, presented a study named “Thinking routines across different subjects and educational levels”. According to Pinedo, García & Cañas (2018), this study has the target to display one of the functions of Visible Thinking in the classroom, specially thinking routines. These thinking routines were applied in different levels of education where teachers were aware of the use of them. Pinedo, García & Cañas (2018), inferred that the findings displayed that thinking routines are easy to implement and encourage learning and thinking in students. Furthermore, this study used a rubric to assess one of the thinking routines used. The criteria or dimensions of the rubric, are stated by Pinedo, García & Cañas (2018):

This study will analyze one of these routines along different stages, specifically "I see- I think- I wonder". “I see-I think-I wonder” promote specially these types of thinking: – Observing closely and describing what is there – Building explanations and interpretations – Making connections – Reasoning with evidence – Wondering and asking questions. (p.3).

From the above it can be inferred that as well as Mertens (2018), Pinedo, García & Cañas (2018) used in their research the ways of thinking or thinking moves which are part of the thinking routine “I see-I think-I wonder”. As stated by Pinedo, García & Cañas (2018), “This study will analyze one of these routines along different stages, specifically "I see- I think- I wonder"” (p. 3). In this study there were used the ways of thinking, as criteria to assess the implementation of thinking routines in three levels. As stated by Pinedo, García & Cañas (2018), in this study the participants of different academic levels such as preschool, middle school and high school, were fifty-four percent female and sixty-one percent male. These students were part of classrooms where their teachers were actively implicating thinking cultures.

The study showed positive results, as Pinedo, García & Cañas (2018) affirm, they had proved with the results that thinking routines are applicable and suitable in every educational level, thereby adjusting the instruction processes to the ones that students need in this century. Also stated by Pinedo, García & Cañas (2018), the criteria used to study the thinking routines is a great tool to evaluate impartially these routines, also it is suitable for every academic level and all types of routines. In addition, it can be concluded that the rubric or criteria this study used to evaluate, can be a useful tool to implement in any kind of Visible Thinking activity.

The previous studies that have been briefly analyzed so far in this monograph, have shown that Visible Thinking through its most useful techniques and strategies which are thinking routines, is a helpful tool to enhance students` learning, development, understanding and thinking.

The following study is an action research project that belongs to Angela K, Salmon Assistant Professor Early Childhood Education, Florida International University, USA. “Young learners making thinking and language visible”. This project took place in Miami, Florida in two

bilingual early childhood institutions, with the aim of analyzing the internal management of English language learners' bilingual institutions where the majority of the children enrolled in their homes and community have a Spanish language environment and mainly English language at school. The methodology used was based on qualitative research, according to Salmon (2018), the students were weekly videotaped by the researcher, gathered the documentation of the teachers and arranged meetings in order to discuss about the data two times monthly for extend of time of six months.

The findings and results after analyzing the data obtained, displayed that the project demonstrated that thinking routines are a great tool for educators as well as students. As it is stated by Salmon (2008), the paper displays the outcome at the English language development of young English language learners while they were enrolled in thinking routines. It is inferred that such routines are a strong tool to help educators in order to understand the internal functioning of the learners' minds through the way they express their thinking in their first and second language. Moreover, according to Salmon (2008), while children were in playing activities in a small group, English was spoken.

Firstly, being an early childhood educator is a challenge in every step of the learning process of children, even more if this process is held in a bilingual environment where the use of a foreign language is a must in mostly all of the areas. Through previous experiences in some schools as a self-contained teacher, it was evident the differences between teaching English to preschool learners using the traditional approaches and using Visible Thinking as thinking routines. As it is stated by Tishman & Palmer (2005), "This in turn encourages students to become more alert to opportunities to think things through for themselves, and helps them become active, curious, engaged learners" (p.2). The thinking routines showed to be more

efficient when acquiring the basis of the foreign language, the students were more attentive and even at that young age they were able to learn more vocabulary and think deeper during the thinking routines that during the traditional activities or textbook activities.

Secondly, acquiring knowledge facing a new language that certainly differs a lot from the mother tongue or first language of the students, is a challenge that these bilingual institutions have to deal with. English language is not the exception, it has a wide range of vocabulary and words. According to Perkins (2003), all languages including English language, has an abundant vocabulary of thinking. Therefore, many terms can be terms of thinking. “Consider terms like hypothesis, reason, evidence, possibility, imagination, perspective and routine use of such words in a natural intuitive way helps students catch on to the nuances of thinking and thoughtfulness that such terms represent” (Perkins, 2003, p.2).

Finally, a questionnaire was applied in two different bilingual preschool institutions in Cajica, based on Likert scale and Item (*see figure 1*). The questionnaire was applied to English teachers as well as principals with the aim to determine how much they agree or disagree on five statements about the implementation of Visible Thinking through their previous experiences. It was applied to twenty educators. The questionnaire also includes two questions about frequency, based on their own previous experiences as well.

	Strongly disagree	Neither agree nor disagree	Strongly agree
1. Visible Thinking is a good strategy to implement in preschool education			
2. Through the use of thinking routines is easier the learning English process			
3. It is important to implement daily at least one thinking routine			
4. Visible Thinking is not suitable for preschool classrooms			
5. Visible Thinking could become an important part in a preschool curriculum			
	Never	Sometimes	Always
7. Based on your experience, how often have you implemented visible thinking during your career as a teacher?			
8. Based on your experience, How often have you evidenced a good response from learners when applying a thinking routine during the English class?			

Figure 1. *Questionnaire design*
Note: Own design

The results on the agreement and disagreement statements, (see Table 2) showed that most of the educators surveyed, agree that Visible Thinking and thinking routines are good strategies and techniques to implement in preschool environments, and also through thinking routines the learning English language process is easier and more simple. Only one educator surveyed strongly disagree to statement number five, because she stated that Visible Thinking could not become an important part in preschool curriculum. This educator was not aware or did

not have enough information on Visible Thinking, therefore she believes is not extremely necessary to include it in the institution curriculum.

Table 2 *Agreement and disagreement results*

Statements	Strongly disagree	Neither agree nor disagree	Strongly agree
1. Visible Thinking is a good strategy to implement in preschool education		2	18
2. Through the use of thinking routines Is easier the learning English process		3	17
3. It is important to implement daily at Least one thinking routine		7	13
4. Visible Thinking is not suitable for preschool Classrooms		2	18
5. Visible Thinking could become an important Part in preschool curriculum	1	1	18

Furthermore, two frequency statements were also included and applied based on the previous experience of teachers. The results (*see table 3*) showed that most of the teachers surveyed have had previous experiences implementing Visible Thinking and also they have evidenced good response by the students when they applied it, however only one of the teachers surveyed has not had experience on Visible Thinking before, in fact the teacher was not familiarized on the topic.

Table 3 *Frequency results*

Statements	Never	Sometimes	Always
1. Based on your experience, how often have you Implemented Visible Thinking during your career as a teacher?	1	12	7
2. Based on your experience, how often have you evidenced a good response from learners when applying a thinking routine during the English class?	1	4	15

The way to make thinking visible in the learning English process

Preschool learners are children mostly aged from two to six, however younger or older students may be enrolled in preschool institutions. The article Preschool (*n.d*) states that “Children are most commonly enrolled in preschool between the ages of three and five, though those as young as two can attend some schools” (para. 1). They are at an age where their brains are developing and they are curious, they are intrigued, they perceive and receive stimuli from the environment that surrounds them and their senses are awake to interpret and analyze new knowledge; as Perkins (2003) mentions, “As educators, we can work to make thinking much more visible than it usually is in classrooms. When we do so, we are giving students more to build on and learn from” (p.2).

Now imagine if educators in preschool level take advantage of all these features to make the learning process meaningful through the implementation of Visible Thinking using thinking routines day by day in the classroom to teach English and unleash their creativeness, it will be a great improvement in early childhood education. “When thinking is visible, participants are aware of their own thoughts and thought processes, as well as those of the individuals with whom they are working” (Hull 2011, p.1).

This approach seeks to make thinking visible and encourage thinking, according to Keleş & Yurt (2019), solid observable manifestations that record children’s doubts, statements, thoughts and performance are possible through Visible Thinking, so teachers may be able to allow students be part of the implementation of thinking routines, which are a set of tiny strategies that help to develop the thinking skills in students, there are over thirty different thinking routines aimed for each level. “Each routine aims at a specific form of thinking which teachers can embed into the content of their daily lesson plan” (Dass, Arumugam, Dillah & Nadarajah, 2016, p. 543)

Visible Thinking and specifically thinking routines, have displayed on this monograph some characteristics and concepts based on previous studies and previous experiences. The application or implementation of Visible Thinking according to these studies, points out to the simple application of thinking routines in the classroom to make thinking visible. To apply a thinking routine, the first step is to identify the subject or topic that is going to be taught, then identify the routine of one of the aims that could cause the particular type of thinking you want to highlight (Visible Thinking, n.d). For the above, it can be inferred that according to the topic and subject to be taught, teachers are supposed to choose the thinking routine suitable for the class and thinking goals. It is already known that there have been designed many different kinds of

thinking routines from which teachers may choose, however, teachers may unleash their creativeness by designing their own thinking routines, like the simple and easy thinking routine designed for preschoolers in this paper. (see Appendix A).

Thinking Routines and Culture of Thinking

A wide range of thinking routines are designed to be applied in different levels of education; however preschool level is not the exception owing to the purpose of Visible Thinking to be suitable from preschool to high school. For Salmon (2008), “The thinking routines nurture children’s early experiences and expand them. As the name suggests, thinking routines become part of the classroom routine” (p. 129).

Thinking routines may become part of the everyday life at school, where teachers and students could be able to create a cognitive environment in the classroom based on exchanging ideas and thoughts. Mentioned by Gholam (2019), “such routines, which are usually used again and again in the classroom, promote thinking skills, call for collaboration and sharing of ideas, and above all, make thinking and learning visible” (p.53). Introducing a routine to a group of preschoolers has to be a discipline process aimed to succeed and to last in time. “When thinking is part of the routine, children become alert to situations that call for thinking, and they build positive attitudes toward thinking and learning as a result” (Salmon, 2008, p.129).

A culture of thinking might be applied by teachers since the beginning of the school year by implementing day by day in the classroom thinking routines suitable for the level and the school context, therefore according to Perkins (2003), in the search of a culture of thinking the conception of Visible Thinking allows to identify the features that a classroom should have and gives a route. When a thinking routine is applied in the

classroom every day, which can be a short routine, learners start getting used to it and develop a culture of thinking, “The ultimate aspiration is building a strong culture of thinking in the classroom. Culture, after all, is the great teacher” (Perkins, 2003, p.5). Creating a culture of thinking can be defined also as creating a habit in the students, and it will be an outstanding fact in the everyday activities in the classroom.

Students learn a lot from the classroom cultures around them, which carry the "hidden curriculum" of conventions and expectations. In order to ensure that they learn what we would really like them to, we need to take responsibility for building that culture, making it a strong culture of thinking. (Perkins, 2003, p.2).

According to Mertens (2018), these thinking routines are foundations where the students in group or individually start, examine, deliberate and handle the thinking. They are also organized models which are helpful to use their minds to create thoughts, or to display findings while the students are learning. So, it can be inferred that are useful tools to expand the learners' minds and to awake their abilities to think, and to show their thoughts during the learning process so it can be meaningful.

Finally, implementing a culture of thinking in the classroom, may be part of the lesson planning of teachers, which means that thinking routines can be linked to content and just become part of the class by applying them in a short time of the class. Moreover, according to Salmon (2008), train teachers on teaching dispositions of thinking, is a must to promote in students a thinking culture. In the same way, dispositions of thinking are carried on by using short thinking routines, simple to learn mental management.

CHAPTER 3

METHODOLOGY

This is a documentary research (monograph) aimed to gather information and inform the reader about the topic Visible Thinking in order to analyze the concepts, the importance and the influence of Visible Thinking in the learning process of English as a foreign language in preschool education mainly. The stages to develop this monograph are three, the first stage consists on gathering the information by reliable and academic resources such as Redalyc, Eric, Refseek, Google scholar, Biblioteca Unad among others.

The intermediate stage seeks to gather information through the application of a questionnaire based on Likert scale and Item, according to Mcleod (2008), Likert (1932) established the basis of grading character, through a series of questions to be answered by different people in relation to a topic, in order to identify if they agree or disagree with it. This questionnaire is applied in two bilingual preschools in Cajica Cundinamarca to preschool teachers, English teachers and principals, to identify some previous experiences in Visible Thinking. Mcleod 2008, “In its final form, the Likert Scale is a five (or seven) point scale which is used to allow the individual to express how much they agree or disagree with a particular statement” (para.5). Furthermore, analyze the data collected through the sources, and the final stage will be aimed to make the suggested corrections and the presentation of the final file.

This monograph is developed under some basis of the qualitative research approach, because through a deep reading and searching it is possible to analyze the concepts, the importance and the influence of Visible Thinking in the learning process of English as a foreign language in preschool education. Denzin and Lincoln (2011) cited by Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R (2013) propose the definition as:

A set of interpretative, material practices that make the word visible. These practices transform the world. They turn the world into a series of representations including fieldnotes, interviews, conversations, photographs, recordings and memos to self... qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them. (p.3).

Although this monograph has its basis on qualitative approach, it is linked to grounded theory, and is suitable to implement some of the basis of this theory to write this monograph, Strauss & Corbin (1994), emphasized that grounded theory focus its basis on flourish the theory by grounded information, which is consistently collected and interpret. Theory emerges during the investigation through the process of collecting and analyzing the information. Linking qualitative research and grounded theory, will allow to carry out all the stages of this paper gathering and analyzing useful information to achieve all the objectives proposed.

Furthermore, this is a documentary paper that gathers information collected through reliable sources and this methodology is suitable because it allows to identify theories also through the previous experience as an English teacher, Strauss & Corbin (1994), state that

investigators may also find theory based on previous knowledge and research, and joining together the information and the theories is a process that has to be conscientiously held. The implementation of Visible Thinking and thinking routines, the concepts and generalities about them, are going to be analyzed in this monograph in order to identify how suitable Visible Thinking is in the process of learning a foreign language in this case English.

CHAPTER 4

RESULTS

According to the sources researched and the brief questionnaire applied, this section shows some results and findings. After analyzing the reliable sources and based on the authors statements and research, it was evident that Visible Thinking has made an impact in the educational field, authors who have made a research on the topic or have implemented Visible Thinking as well as thinking routines, authors like Dajani (2016), found that “Different facets of understanding were revealed, students were able to explain, interpret and sometimes apply their understanding through the mini projects that they were required to do” (p.8). This statement means that students were able to comprehend through the use of thinking routines in the classrooms according to the activities proposed.

Visible Thinking background was a meaningful part of this monograph because it revealed the most important findings about some previous studies about Visible Thinking and thinking routines. Through the development of this monograph. It was possible to analyze and comprehend the scope that Visible Thinking has in the educational field. When Visible Thinking was applied and implemented in the different contexts and areas, students and teachers found easy and simple the use of thinking routines and there was an improvement in the learning English language process.

It can be inferred that implementing thinking routines, might be challenging for teachers and students, first of all because teachers have to plan how they are going to implement them in case they want to use an existing thinking routine, or how they are going to design it. Moreover, for students it might be challenging because they are facing something new in their English class, as stated by Mertens (2018), “Using thinking routines is different from what they have done in English classes before. Students make a lot of assumptions about what to do and how to do it from their previous experience” (p.201). However, once the thinking routine becomes part of everyday classes, teacher and students may accustom and take advantage of the benefits they obtain from thinking routines.

The objectives proposed to develop this monograph, have been fulfilled, due to the fact that it was possible to identify previous knowledge and experiences through the Visible Thinking background and through the reliable sources consulted. Regarding to the question of the problem *how to improve the process of learning English as a foreign language in preschool learners by implementing Visible Thinking in the classroom?* It can be stated that Visible Thinking is an approach that is suitable and applicable in every educational context and level, from early childhood education to high school education, also it can be a simple and easy routine designed to be used by preschoolers or a more difficult routine designed for higher levels and demonstrating its effectiveness and improvement in terms of understanding, acquiring knowledge and vocabulary in the target language.

It is going to be displayed a thinking routine that is own material, which is a simple proposal to implement Visible Thinking in learning strategies for the foreign language acquisition in preschool education, it is going to be a simple, easy and short routine that can be applied even if the institution is not bilingual just by changing some of its procedures. The name

of the routine is “I see and I know my words”, the aim of this routine is to show the children an image or picture where the children are supposed to recognize shapes or forms learning the vocabulary related to the image, in bilingual contexts, the teacher would be able to teach not only English vocabulary but math terms; on the other hand, if the purpose of the teacher is just teaching vocabulary, this routine is suitable too.

Procedure

- Show the image to children
- Ask precisely questions, for example, what can you see?
- Allow the child to think for a couple of minutes, remember they are fostering their thinking skills.
- When the child starts to name the shapes or things he/she thinks are shown in the picture, start reformulating the answers using the target language, in this case English.
- It is supposed that when the student says: “Veo una casa”, the teacher must reformulate saying: “You see a house” that is amazing! always using the target language. (See appendix A).

Characteristics:

- Name of the thinking routine: “I see and know my words” a routine to recognize new vocabulary in English.
- Purpose: To awake observation and thinking skills in children, describing what they see using the target language.
- Application and / or design criteria: This thinking routine “I see and know my words” can be applied in any moment of the class, as an icebreaker to introduce the new topic or after recognizing the topics or previous knowledge.

To implement or design a thinking routine it is a must to think first the level of education in which is going to be applied, in order to select the material, image, video etc. suitable to the previous knowledge of students and their age. Then taking into account the subject and the topic, the routine is designed or chosen. According to Ritchhart, Palmer, Church, & Tishman, (2006), the specific disposition of thinking routines is based on labeling them, which means to give them a name. These names frequently describe the steps of the thinking routine, so after it has been designed teachers must name it. In addition, the main idea is to use any picture or image according to the topic, taking into account that in this case the routine is applied in preschool because in this level students are learning to write and read.

Children are supposed to look at the image, think deeply, start flourishing what they can see and the teacher is able of asking some more questions, “Where do you think this picture takes place?”, “How many trees can you see?”, “which shape are the fruits in the tree?”, so the possibilities are many to be creative and make children think. Through this thinking routine the children are thinking deeply, so their cognitive abilities are present whenever they are using their thinking skills, also their communicative abilities are also implied, owing to the fact that they are communicating and expressing their ideas and thoughts based on what they are seeing. This is what this thinking routine may outcome, thinking, understanding and communication. First the children are deep in thought and finally they make visible what they are thinking.

Criteria or dimensions to be evaluated: the children are going to be evaluated, step by step, during the own designed thinking routine “I see and I know my words” (see table 4). The criteria are based on the “Thinking moves” stated by (Mertens, 2018). However not

all the moves are taken into account in this thinking routine proposed, due that it was designed for preschool children and it does not require all the criteria.

Table 4 *Criteria or dimensions*

Criteria	Description according “I see and I know my words”
Observing closely and describing what’s there	The students are able to observe in detail the image and describe what is being seen. There are no right and wrong answers, the idea is to allow the students to interpret the image by themselves.
Building explanations and interpretations	The students are supposed to recognize the shapes, figures or items from the image and start to interpret everything they see, using the target language with the guidance of the teacher.
Considering different viewpoints and perspectives	Through this stage, the students are told to imagine more situations going on in the picture, or named more objects or items that are suitable for the context of the image.
Wondering and asking questions	This is the final step, where the students are able to ask questions according to the activity. This criterion allows teachers to comprehend student’s curiosity and understanding.

(Mertens, 2018, pp.194,195)

Note: The table is own designed. However, the criteria cited in the table, is part of the study *Thinking Routines in the EFL Classroom. Language and Culture: The Journal of the Institute for Language and Culture*, 191 – 202 (Mertens, 2018, pp.194,195).

When this routine is implemented with preschoolers, they start feeling curiosity, motivation and the process of learning English flows naturally and children are using their thinking abilities analyzing every shape so they can recognize them in a different context not just in the classroom. The educator is autonomous to change, improve or modify these thinking routines, there are no boundaries to unleash creativeness when applying a thinking routine.

CHAPTER 5

DISCUSSION

Through the display of the results found in this paper, it can be inferred that Visible Thinking is not a new approach, from different education fields it has been used to reinforce or improve teaching and learning process. Although there are not many foundations or previous studies about Visible Thinking and thinking routines in English learning language, the authors who have researched on this specific topic, have found many positive outcomes when applying Visible Thinking and thinking routines as described in the results section.

Firstly, as stated in the introduction, the aim of this monograph was to confirm the necessity of using Visible Thinking in the learning English process in early childhood education based on the results found at the end of the development of the documentary research. Secondly, according to the results and the design of a simple and useful thinking routine suitable for early childhood education, it can be inferred that the statement of the problem can be solved or improved by the implementation of thinking routines.

The main contribution of this monograph is to have had the opportunity to explore, interpret and analyze the different positions, concepts, experiences and perspectives of researchers and authors who have had a closer approach to Visible Thinking and share this information with readers who are interested in Visible Thinking and that way broaden their previous knowledge or their perspectives to implement something new. Moving forward, there

are some facts which have to be taken into account after the reading of this paper beyond the positive outcome and findings regarding that in Cajica there are not many educators who implement thinking or educators who are familiarized on the topic but do not apply it.

The survey applied in two bilingual institutions in Cajica, although it showed there was a previous knowledge on the topic, teachers are not currently applying Visible Thinking in their English language classrooms, and that is the main challenge to create a culture of thinking in teachers and students, also because sometimes teachers may feel that designing or applying these routines takes extra time, (Dajani, M, 2016), stated that “....teachers should realize that using thinking routines is a process that takes time and needs practice; therefore, they need to be patient, persistent, perseverant, consistent and risk taker”. (p.12). This means that is affordable the implementation of such routines, it just has to be a process where educators should be engaged and committed on this purpose.

Regardless of previous experiences on Visible Thinking that teachers may have, implementing thinking routines as previously stated can be a great challenge, but once educators and students are used to them, it becomes easy to maintain in the daily academic life, besides, teachers are able to alter the dynamic of the thinking routines, as well as change them or redesign them according to their needs or the difficulties or troubles they might find during their implementation. According to Ritchhart, Palmer, Church, & Tishman, (2006), it is frequently seen that teachers adjust or change the routines to suit their achievements and necessities of the students thereby keeping in mind that these routines are instruments to serve an intention not only exercises.

CHAPTER 6

CONCLUSION

This monograph should be read by educators and parents, for the reason that Visible Thinking has demonstrated that in early childhood education can be improvements and changes in the quality of learning a foreign language in this case English. It can be concluded also that most of the findings showed positive results in its implementation, thereby, these institutions in Cajica, may be improved the learning process of the preschoolers just by implementing the proposed routine in their everyday practice. Early childhood education is not just a matter of subjects to be learnt just in the academic institutions, parents also may find useful the implementation of Visible Thinking at home to improve and enhance children's behavior and thinking.

Furthermore, through summarizing the concepts of Visible Thinking in this monograph, there were achieved the personal goals set to work on this topic, because the writing of this paper manage to be adequate and readable for education professionals in all areas, as well as for students of different teaching careers, community in general interested in this topic and parents, although this topic is not highly common, through this monograph the concepts, generalities and characteristics for its implementation may be a useful tool in further applications in preschool education or any academic level. Finally, it can be concluded that through the design of the proposal which is a thinking routine suitable for preschool, teachers may be able to implement it

as well as having basis or guidance to create their own thinking routine in an easy and simple way.

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APPENDIX A: THINKING ROUTINE “I SEE AND KNOW MY WORDS”

Ask: What can you see?

- Allow the student think about it for some minutes.
- Make sure the student names shape by shape.
- Reformulate the answer using the target language.
- If the objective of the thinking routine is also to identify math terms. It can be possible, to ask, how many fruits there are in the tree? how many stars can you see? Etc.

As an educator, there is no limit to be creative using these routines according on what it is expected to achieve during the learning process.



Figure 2. *“I see and know my words” thinking routine*
Note: Own design