The University of San Francisco USF Scholarship: a digital repository @ Gleeson Library | Geschke Center

Master's Theses

Theses, Dissertations, Capstones and Projects

Spring 5-18-2018

Bi or Multilingualism and its Curriculum for Children with SLI

Jeongmin Ryou ryou70@gmail.com

Follow this and additional works at: https://repository.usfca.edu/thes

Recommended Citation

Ryou, Jeongmin, "Bi or Multilingualism and its Curriculum for Children with SLI" (2018). *Master's Theses*. 1044. https://repository.usfca.edu/thes/1044

This Thesis is brought to you for free and open access by the Theses, Dissertations, Capstones and Projects at USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. It has been accepted for inclusion in Master's Theses by an authorized administrator of USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. For more information, please contact repository@usfca.edu.

University of San Francisco

Bi or Multilingualism and Its Curriculum

For children with SLI

A Field Project Proposal Presented to The Faculty of the School of Education International and Multicultural Education Department

In Partial Fulfillment
Of the Requirements for the Degree
Master of Arts in Teaching English as a Second Language

By Jeongmin Ryou May 2018

Bi or Multilingualism and Its Curriculum

For children with SLI

In Partial Fulfillment of the Requirements for the Degree

MASTER OF ARTS

in

TEACHING ENGLISH AS A SECOND LANGUAGE

by Jeongmin Ryou May 2018

UNIVERSITY OF SAN FRANCISCO

Under the guidance and approval of the committee, and approval by all the members, this field project (or thesis) has been accepted in partial fulfillment of the requirements for the degree.

Approved:	
GA Guan	_05/04/2018
Instructor/Chairperson	Date
Committee Member*	Date

^{*}Added only if there is a second reader

TABLE OF CONTENTS

	Page
Acknowledgements	
110Stract	······································
Chapter I – Introduction	1
Statement of the Problem	1
Purpose of the Project	
Theoretical Framework	
Significance of the Project	
Limitations of the Project	
Definition of Terms	
Chapter II – Review of the Literature	12
Chapter II – Review of the Literature	12
Introduction	13
The Positive of Evidences of Bi- or Multilingualism in SLI	
The Benefits of Bi or Multilingualism	
Minimalism in SLI	
The Significance of Early Intervention for SLI	
Summary	
	2=
Chapter III – The Project and Its Development	27
Brief Description of the Project	28
Development of the Project	
The Project	
	22
Chapter IV – Conclusions and Recommendations	33
Conclusions	34
Recommendations	
References	36
Appendixes	43

ACKNOWLEDGEMENTS

This field project has been a long journey of trying to collect all of my learning and teaching. However, it was definitely a beautiful experience. The more I learned, the more I realized how little I knew about teaching and learning. During this project, I have come to understand that true teaching comes from the virtue of learning. My journey was very enlightening and this project has become a valuable asset.

First of all, I wish to extend a special acknowledgment to God. He always encouraged me whenever I wanted to give up on this challenge. I would also like to express my deepest gratitude to Dr. Yi Guan for providing ongoing support for me in many ways. Finally, I am deeply grateful to Dr. Sedique Popal for educating me on new teaching methods through his classes.

Additionally, I would like to express my gratitude to Josie who paved the way for me, Eunjee Choi who proofread my project, and Unjung Kim who encouraged me during our innumerable coffee breaks. I would like to thank my family members: Daniel, Joshua, James, Justin and especially my husband. He has always inspired me with his great courage and financial support. Finally, I would like to give an honorable mention to my parents in Korea who always pray for my family. This project could not have been without the love and support from everyone.

ABSTRACT

Most people think that children with language disorders do not have the capability of being bi -or multilingual. Specific Language Impairment (SLI) is a delayed development of language in which individuals present impairment only in their language functions. For this reason, it is not easy for others to accept the idea of these individuals learning two or more languages as they still question the possibility and potential of bi-or multilingualism of children with SLI.

The world is globalizing and the economic climate among nations keeps changing. The changing world commends and requires bi- or multilingual individuals. This tendency toward bi- or multilingualism gives an impetus to learn multiple languages and accordingly, educational systems specifically for developing multiple languages continue to be developed. Despite this trend, the curriculum for developing bi- or multilingualism in children with SLI has been very inadequate throughout the society and furthermore the nation.

The purpose of this project, which is based on SLI children age 3-6, is to inspect the possibility of bi- or multilingualism on SLI children and to create a curriculum, which consists of six modules, accordingly. It includes a variety of visual and auditory materials for each module, offers well-tailored daily lesson, and helps children with SLI learn the target language simply and easily.

This project provides tips for teachers and can be also referenced when a teacher creates his or her own curriculum. Each module is flexible and should be tailored to the individual, while also being facilitated to make sure that understanding of the target language ensues. Furthermore, this project is significant as a new curriculum for children afflicted with language disorder.

CHAPTER I INTRODUCTION

Purpose of the Project

Theoretical Framework

Significant of the Project

Limitations of the Project

Definition of Terms

CHAPTER I INTRODUCTION

Statement of the Problem

"I never taught language for the purpose of teaching it; but invariably used language as a medium for the communication of thought; thus the learning of language was coincident with the acquisition of knowledge." -Anne Sullivan Macy-

A few months ago, my four-year- old son, Justin Kim, was advised to be tested for SLI, He was diagnosed by the school psychologist and speech-language professional based on the Individualized Education Program (IEP), which indicates what kind of support and a child needs to be successful in school. My son's English evaluations and tests indicated that he had not been able to reach the developmental milestones in the area of Receptive Language (or language comprehension), which is the ability to understand the meaning of language and Expressive Language (or language production), which is the ability to express one's thinking or idea into the spoken and written language (Chabra, 2015; Benton,1964). Children with both receptive and expressive language impairment have relative difficulties when deducing meanings, usingpragmatics, and comprehending vocabulary and syntax (Boyle, Mccartney, O'Hare & Law, 2010).

According to a statistical survey of children with language disorders in the U.S., nearly 1 in 12 (7.7 percent) U.S. children ages 3-17 has had a disorder related to voice, speech, language, or swallowing in the past 12 months. The number of these disorders is highest at 11% among children aged 3 to 6 compared to other groups of children. And over 55.2% of U.S. children aged 3-17 received intervention services last year. In addition, approximately 5% of children in the first grade have noticeable speech disorder, including speech sound disorder, including stuttering

and dysarthria. 3.3 % of U.S. children ages 3-17 have a language disorder that lasted for a week or longer during the past 12 months. Specific language impairment is one of the most common childhood learning disabilities, affecting approximately 7 to 8 percent of children in kindergarten in the U.S. According to this statistic, there are not a few population of children with SLI in the U.S. (*NIDCD*). Although L2 children with SLI are increasing, the population does not reach to optimal point so that the study for bilingualism on SLI was not prevail to be developed (Paradis, Cargo, Genesee, Rice, 2003).

Most Typically developing (TD) children acquire a native language without any problem. According to Chomsky, children can be proficient a native language in such a short time because of innate abilities in language, called a language acquisition device (LAD) (1965). However, children with Specific Language Impairment (SLI), who do not have problems hearing or developing motor, cognitive, thinking, or social skills, have difficulties in acquiring even a primary language (Lenado, 1989). Such this developmental language disorder occurs in 5-8% of preschool children and results in the retardation of language skills in them (Jung, 2008). Gopnik and others proposed a "feature-blindness", whose feather is unable to be interpretable, about the lack of nproperties of universal grammar on SLI (1990). Furthermore; my son's performance fell in the typical age level category. For these reasons, he started receiving language treatment provided by the school district. One day, however, surprisingly, I discovered that my son could count to 10 in Spanish. I found out that my son has been learning Spanish at school. Suddenly, one question arose, "Is it really impossible for children with SLI to be multilingual?" Many teachers and institutions have not pursued bilingualism or multilingualism for children with SLI because of the common misperception that it would be detrimental to a child's language development. Regardless of the adequate empirical and scientific evidence on multilingual SLI

children, the common notion is that bilingualism in SLI could damage their cognitive, social, and emotional, and primary language (Hakuta, 1990; Paradis, 2007). As such, these beliefs of bilingualism in SLI have created a myriad of myths and misperceptions in this society and widespread negative attitudes have impeded the development of multilingual curriculum for children with SLI (Paradis, 2007).

Globalization explains the multiple processes and practices that increases rapidity of the economic cycle of people and products across the globe. The tertiarization of the economy transforms the economy, ultimately altering social groups, their linguistics and their culture differences (Sliva, 2007).

Bi- or multilingual individuals have many advantages in that they are more likely to get more job opportunities in the global economy. According to an interview of California employers, bilinguals were preferred to be retained than their monolingual counterparts. Today, high-powered Fortune 500 companies hire bilinguals and biliterate employee in order to serve as client liaison (World forum). Globalization offers a premium of enhanced opportunities, higher occupational status, and higher earnings for those with bi- or multilingual competence.

Furthermore, speaking more than two languages may benefit an individual's intelligence. Over the past decade, bi- or multilingual individuals have received higher test scores on standardized tests, exhibiting sharper problem solving skills and mental perceptions that allowed them to access a higher social status. In the late 1990s, research found that bilingual children have greater attention spans when problem solving compared to a monolingual (Krizman, 2014).

In short, the widespread negative attitudes for bi- or multilingualism in children with SLI have impeded the development of their multilingual curriculum. Bi- or multilingual individuals have many advantages in that they are more likely to obtain opportunities in the global economy

that benefits the individual's intelligence. However, these benefits of bi- or multilingualism have only been available to typically developing children even though children with SLI deserve to receive the same opportunities.

Purpose of the Project

The purpose of this project is to inform public institutions, speech-language pathologists (SLPs), and parents of the potential of Bi- or Multilingualism in children with SLI and create a new curriculum that implements bi- or multilingualism for SLI children. Thus, this project can be referenced when creating a new bi - or multilingual curriculum that is individualized and modularized for each child with SLI. Chomsky stressed the necessity of 'not a theory, but a program' related to Minimalism of Grammar (MP) (1995).

All curriculums furthering bi- or multilingualism in children with SLI should be adapted to each individual child's specific degree of language deficit because there are a variety of labels for children with deficits. Therefore, this project offers well-tailored and boiled-down modules of grammar for teachers, pathologists, and institutions to use.

In modern linguistic theory, abstract linguistic principles with microscopic data have increased and grammatical structures have become more intricate and diverse (Roeper 2011). As such, these complexities do not fit to SLI children. Thus, new curriculum should be tailored accordingly to the SLI individual's trait while maintaining flexibility in order to account for the variability of each case.

This project offers the modularized curriculum based on bare essentials of grammar and phonology and these six 25- minute modules should have attached auditory & visual aids:

Cognate module (eg,.English *telephone* and Spanish *telefono*), Tense module (the past, present, and future), Morpheme module (as a content word), Pragmatic module (as a conversation/oral

expression study), Semantics module (as a meaning study), and Articulate module (as a correction of pronunciation). Although these modules do not account for all existing grammar, these modules have been observed to be effective in SLI children.

In the present day, the grammatical deficits shown by children with SLI was understood as the vital nature of a SLI child's language faculty (Rice, Ruff Noll, & Grimm, 1997). Modules should thus be assigned to the SLI child based on his or her deficit and each teaching module of the target language should begin verbally with simple and easy terms in the L2 that could be understood. For example, children with SLI frequently have problems with marking tense on their verbs (Rice & Wexler, 1996). They say, "He go to school." The teacher can then utilize the words such as 'will go,' 'went,' and 'goes' from Tense module with auditory and visual aids. Furthermore, SLI children have difficulties in learning words due to their weakness in semantic structure and phonological nature (Conti, 2003). Utilizing cognate words that are similar meaningfully and phonologically to their first language is more effective when they learn L2 vocabulary (Caramazza & Brones, 1979). By utilizing these modules, when SLI children are told two words such as 'run' and 'dog' from a morpheme (or word) module in the target language, they would then be able to make a sentence with these words like 'The dog runs," "A dog runs," "The dog ran," and so forth (Paradis, Crago, Genesee, & Rice, 2003). Therefore, these modules should be utilized to maximize the learning potential of an L2 in an SLI child.

In sum, these modularized curriculum modules can be utilized as a reference for teachers, pathologists, public institutions, and students. This project presents well-simplified and well-tailored modules in grammar that should be utilized when teaching SLI children in order to promote awareness of the respective target language easily and effectively.

Theoretical Framework

This project is based on the Natural Approach, the Audio-Lingual Method, and the Affective Filter Hypothesis. The following theories support this field project.

The Natural Approach (NA) is based on Krashen's Language Acquisition Theory and developed by Krashen and Tracy Terrell (1995). Krashen declared: "they should be given the opportunity to "pick up" a language, and shouldn't be forced to "study" grammar in the classroom" (Brown, 2004). The NA approach is primarily designed to be used for beginning learners (".. is for beginners and.... is designed to develop basic communication skills - both oral and written" (Krashen & Terrell, 1983). The NA is aimed at developing basic communication skills, that is, language commonly used in everyday life such as in conversation, when shopping, and the like. This approach focuses on 'comprehensible input (meaningful occasions of language use)', which is essential for assessing to the language acquisition, and places less emphasis on error correction or grammar rules. Comprehensible input is presented using techniques such as Total Physical Response (TPR), body language or mime (Kreshen, 1995).

Slow speed production has been well known in children with SLI (Kail,(1994), Miller, Leonard, & Tomblin, (2001), Leonard et al.(2007), Windsor & Hwang,(1999)). However, the oral production of the NA may be crucial for children with SLI. Students should be exposed to his or her native language daily and should practice dealing with a simple given situation provided by the teacher. Activities based on vocabulary should be developed rather than those based in grammar in order to put an emphasis on communication. This approach stresses the point that acquisitionis occuring in the "natural" way. Hence, Krashen and Terrell stated that "acquisition can take place only when people understand messages in the target language" (Krashen and Terrell, 1983). In this respect, the teacher has the key role of creating an interesting variety of

activities in the classroom such as commands, games, etc. in order to assimilate the students in their native language.

The Audio-Lingual Method (ALM) was chosen as the second theoretical framework because this oral-based practice has paramount importance in SLI children. The ALM, a method firmly grounded in linguistic and psychological theory, was widely adopted in the U.S. and was utilized as the principal approach to teaching foreign languages in the 1960s (Richards and Rodgers,2001). This approach is based on behaviorism and the structural linguistics represented in dialogue and pattern drills based on the language used by native speakers, utilizing structures such as phonemes, morphemes, and syntax(Brooks, 1964). One of the main tenets of the ALM is that all language is primarily developed orally, and as such, children learn their first language orally prior to reading and writing. Linguists emphasize that a process of habit formation is necessary to acquire audio-lingual skills (Brown, 2004). Furthermore, within the ALM, the primary Aural-Oral approach was invented by Charles Fries, and he stated that language should be taught by using "intensive oral drilling of its basic pattern" (Fries, 1945). These drills are based on everyday dialogue and are repeated and tested until their responses are automatic. This approach will helpful for SLI children to understand the authentic patterns of target language.

Finally, I adapted Carl Rogers's Affective-Humanistic Hypothesis in my project. Carl Rogers was a founder of humanistic psychology in the U.S., and his humanism was based on the Skinnerian psychology and Ausubel's rationalistic theory (Brown, 2008). Rogers had studied Humanistic Psychology and helped people form a full picture of reality in a non-threatening environment. He felt that given a non-threatening ambience, learning could be more accessible for an individual because he believed that people could reach their full potential when they live at peace with their feelings (Rogers, 1977). It is more important to consider the learners'

emotions such as anxiety or fear than teaching them something. In a positive, friendly climate, students will feel more comfortable speaking about a topic they brought up and could therefore learn a language more effectively during their time in the classroom. A teacher's empathetic, open mind can set the optimal stage for learning especially because children with SLI have the tendency to be introversive in nature. Thus, referencing Rogers's Affective-Humanistic Hypothesis will be advantageous to all children with SLI.

Significance of the Project

The bi- or multilingual curriculum that I develop in this project can be useful as a reference for teachers and SLI children. This project highly recommends to teachers, parents who are homeschooling their SLI children, and pathologists who are testing the possibility of bi- or multilingualism in SLI children. This project offers a new angle on SLI children's potential for bi- or multilingualism and encourages all teachers who work with SLI children to create a new lesson plan specifically for each student. In addition, this project approaches to specialists who work with children afflicted with language disorders, children on the autism spectrum, and people who are interested in this topic itself.

This curriculum designed a variety of modules related to the grammatical domain and each module is subdivided into more specific modules that enable the teacher to facilitate them in the classroom.

The well-modularized curriculum will help children with SLI in improving their skills of acquiring their target language. Primarily, it can minimize wasted time because all modules are independent and individualized for each child, rarely overlapping. Moreover, each module enables the children to reinforce language habit formation in the classroom because it is very simple, but also intensive and repetitive. The aural and visual aids will concrete their learning

and improve their cognitive ability. Finally, these benefits will lead to a metalinguistic ability in which one is able to think flexibly and abstractly.

Based on the SLI characteristic, it is easy for teachers to facilitate each module because they are very simple and never overlapped (Simple Module, Simple Use). Furthermore, if the school has a bi- or multilingual program, 'time utilization' can be an important issue and these modules take less time and energy because each module is limited to 25 minutes (Less Time, Less Energy). The teacher can also utilize the 'audio & visual module' as concrete materials so that students can strengthen their learning in the classroom. The only thing the teacher should concentrate on before utilizing this curriculum is analyzing children accurately in order to consolidate an exact approach for the SLI child.

In sum, modularized curriculum and tailored modules are solely needed for children with SLI and their teachers. Children with SLI can benefit in language skill, cognitive ability and metalinguistic ability from the use of this curriculum while teachers benefit from saving time and energy.

Limitations of the Project

This project is limited in the fact that studies and statistics on the validity of bi- or multilingualism in SLI children were a dearth of research because of how this paper specifically addressed the aspect of grammatical domain. Furthermore, there was difficulty in finding existing bi- or multilingual curriculums for SLI students both in the United States and in other countries as they are scarce in nature (Tucker,1998). Therefore, there was great difficulty in presenting an accurate, effective, appropriate new model for developing a bi- or multilingual curriculum for SLI children as there was not that many to reference in the first place.

Definition of Terms (OPTIONAL)

Affective-Humanistic Hypothesis

An approach is that emphasizes for the individual and his or her feelings and stresses on the importance of non-threaten ambience than materials or methods (Rogers, 1977).

Audio-Lingual Method (ALM)

A method of foreign language teaching which emphasizes the teaching of listening and speaking before reading and writing. It uses dialogues as the main form of language presentation and drills as the main training techniques. Mother tongue is discouraged in the classroom.(Fries, 1945)

Individualized Education Program (IEP)

The IEP, a legally binding document, is meant to address each child's unique learning issues and include specific educational goals (The Short-and-Sweet IEP).

Natural Approach (NA)

The NA is based on a theory of learning which is developed by Krashen and Terrell and aims to foster naturalistic language acquisition in a classroom setting. It emphasizes communicative competence or functional ability, rather than the importance of grammar and the correction of student errors. In the natural approach, it allows to emerge spontaneously after students attend to comprehensible language input (Krashen & Terrell,1995).

Specific Language Impairment (SLI)

A language disorder that delays the language skills in children who do not have problems of hearing or developing motor skills, cognitive or thinking and social skills (Leonard,1989).

Speech-Language Pathologist (SLP)

A person who works to prevent, assess, diagnose, and treat speech, language, social communication, cognitive-communication, and swallowing disorders in children and adults.

CHAPTER II REVIEW OF THE LITERATURE

Introduction

Positive Evidences of Bi- or Multilingual SLI

Positive Evidences of Bi- or Multilingual SLI

The Benefits of Bilingualism

The Significance of Early Intervention for SLI

Summary

CHAPTER II REVIEW OF THE LITERATURE

Introduction

Language is one of most important indicators of human development as it integrates sensory, perceptual, attentive, cognitive, and motor abilities (Tallal, 1988). As described in the previous chapter, SLI is a language disorder that presents an impairment in language functions without damaging other functional abilities such as that in nonverbal intelligence, frank neurological difficulties, hearing loss, and oral-motor difficulties (e.g., Leonard, 1998), furthermore, without particularly developmental learning problem, social and emotional problem (Tallal, 1988). The language performance in children with SLI could be lower than what is expected at their age because of their "limited capacity container" (Hakuta, 1990), which takes place when dealing with two learning languages at the same time. Another magnified issue is the rate of language acquisition; SLI children relatively take longer when learning skills. However, this does not mean that children with SLI cannot acquire any language. They just develop language skills at a slower pace. According to the Generalized Slowing Hypothesis, Children with SLI are decelerated and protracted of their linguistic development if they are exposed to two languages because they take more time to process and develop linguistic knowledge (Milier et al, 2001). Thus, the children with SLI's limited capacity of processing language can be a limitation to pursuingbi- or multilingualism. In addition, numerous research papers published more than 15 years ago reported that children with SLI have selective deficits within their representation function linguistically (Rice, 2003; Paradise, 2007). Nevertheless, Rice demonstrates the plausible possibility and benefits of bi- or multilingualism for children with SLI through recent

empirical evidence, allowing us to deem that bi- or multilingualism in children with SLI should indeed be pursued (2017).

Albeit controversial, the literature review of my field project takes a positive stance on bilingualism on SLI and explores four themes related to the possibility of bi- or multilingualism in children with SLI and accordingly, the needs of tailored individual curriculum for them:a) positive evidences of bi- or multilingual SLI; b) the benefits of bi- or multilingualism in SLI; c) minimalism in SLI; 4)the significance of early intervention for SLI bi- or multilingualism. The first theme debases the misunderstanding of SLI bilingualism by referencing positive evidences that have a basis in empirical and scientific outcomes. Recently, many researchers have demonstrated interest in the topic of bilingualism in those afflicted with SLI and have thus conducted many experiments based on a theory or hypothesis. This project elaborates on obtained outcomes from the studies of First language (L1)- English, Second language (L2), and French-English bilingual children with SLI, including two-language immersion programs for atrisk students in the U.S. and in Canada in order to prove the possibility of SLI bilingualism (Genesee, 2007). The second theme clarifies that dual languages can affect other cognitive abilities such as that in thinking, problem solving, and perceiving (Genesee, Paradis, Cargo, 2008). Consequently, dual languages have a positive impact on cognitive development of children with SLI. The last theme expounds on relationship between minimalism and bilingualism in SLI and describes the importance of early intervention at early age in order to have more effective consequences toward bilingual children with SLI.

Positive Evidences of Bi- or Multilingual SLI

Recently published material has referenced cases that counter the common myth behind bi- and multilingualism for children with SLI. According to a recent statistical Korean study,

there was no significant difference between an Korean autistic child's grammatical judgment and that of the control group in Korean(Kim & Hwang, 2014). Moreover, this result is a good example of how bilingual learning does not interrupt their primary language, and even opens the possibility of bilingualism to children with SLI.

Paradis et al. (2000) found that bilingual children with SLI did not show any differences from monolingual children with SLI in regards to the rates and patterns of grammatical morphology. The errors of grammatical morphology can be showed in the English L2, a case where 85% of the spoken English errors in Spanish-speaking L2 children were grammatical morphemes (Dulay & Burt,1973). In other words, choosing nouns and verbs belonging to prototypical content words such as 'run' and 'dog' can make a sentence like 'The dog runs," "A dog runs," "The dog ran", and so forth. This can generate different meanings depending on how the two base content words are used (Genesee, Pardais, & Cargo, 2008).

Despite these positive findings, most bilingual curriculums have been prioritized for typically-developing children and this tendency prevails in our society, community, and across the globe. Recently, the grammatical deficits shown by children with SLI was understood to be a vital nature of a SLI child's language faculty (Rice, Ruff Noll, & Grimm,1997). However, grammatical morpheme error is not only an issue for English L2 learners, but also for both typically developing children and children with SLI as there are several overlapping elements related to developmental errors between L2 and SLI (Genesee, Pardais, Cargo, 2008).

This study exposed two Chinese L1- English L2 children with SLI to tense marking morphemes and examined them for 3 years (Paradis, Golberg & Crago, 2005; Paradis, 2007).

Chinese L1 children with TD learning English as a L2 was found to be analogous to English L1

children with SLI in using of tense marking morphemes 3 years later. That is, English L2 children with SLI can "catch up" to English L1 children with SLI.

Another study on Spanish - English bilingual children with SLI was based on Cognates, a semantic-phonological form across language such as English *telephone* and Spanish *telefono*, and Noncognates such as English *table* and Spanish *mesa* (Grasso,Pena,Bedore, Hixon & Griffin, 2018). Generally, SLI children have difficulties in learning word due to weak semantic structure and phonological nature (Conti, 2003). Utilizing cognate words that are similar meaningfully and phonologically is more effective in that it addresses this concern when learning vocabulary (Caramazza & Brones, 1979). Kohnert et al. found that 8-13-year-old Spanish (L1)-English (L2)s' scores in receptive language tasks were higher for cognate words compared to noncognate ones (Kelley & Kohnert, 2012). According to the recent results related to cognate production, bilingual children with SLI were found to have no difference in learning levels when compared to TD children (Grasso, Pena, Bedore, Hixon & Griffin, 2018).

The study of bi-or multilingualism on SLI was started with the question of "two monolinguals in one" (Paradis, Cargo, & Rice, 2003). Paradis suggested that children with language disabilities could become bilingual without severe detriments in their grammatical developments (2007). This result aroused controversy due to the common notion that bilingualism would aggravate SLI children's linguistic difficulties; however, Paradis et al. pointed out that the best assessments for SLI bilingualism have not been offered, and therefore appropriate data about the impact of SLI bilingualism could not have been presented (2003). Accordingly, Paradis exhibited successful Canadian models of typical bilingualism currently in the Montreal area and the border of the provinces of Quebec and Ontario such as that of the St. Lambert French immersion program (2007). Most children who resided in these areas are raised

complete bilinguals from birth because both English and French are used extensively in the community.(Paradis, 2004).

Bruck also examined the achievement of third grade English L1 children with SLI and found that the French language skills of SLI children was ahead of TD children in English- only program(1978a,b,1982). Accordingly, Genesee concluded that at-risk English speaking L1 children such as those with learning disabilities, language or reading impairments had not shown any salient risk in French Immersion Programs (2007).

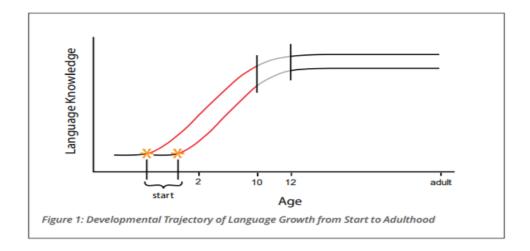


Figure 1: Developmental Trajectory of Language Growth from Start to Adulthood (Rice, 2017)

According to a study by Rice, the rate and pattern of change between five year old children with SLI and those with TD was parallel, and differed only in the fact that children with SLI had a delay in language acquisition at the start(see *Figure 1*)(2017).

In the case of L2 French children with SLI, the rate of acquiring French in SLI children was slower than that of TD children. Paradis stated that the limited linguistic input exposure may be the root cause of the delayed speed of acquiring language in children with SLI (2007). For this reason, Spanish children who are learning English as their L2 often fail to fulfill the mastery of

English. However, it puts a significant meaning in that children with SLI perceive the pattern of French.

As I discussed above, "linguistic input exposure" related to mastering L2 in SLI should be assessed for the future (Paradis, 2007; Paradis, Cargo, Genesee, & Rice, 2003). The evidence above proves that SLI children have the same potential as other normal bi- or multilingual children. Although there are many positive reports on bilingualism in children with SLI, it has been still controversial issue among children with SLI. However, bi- or multilingualism in SLI children should be always left the door open for their future.

The Benefits of Bilingualism

There are numerous cognitive advantages of learning two languages in that bilingual children outperform monolingual children in terms of verbal and nonverbal intelligence (Hakuta, 1990, Bialystok, 1999).

Early studies concluded that there was no cognitive advantage for bilingual children.

However, recent researchers found that there are potential cognitive advantages in bilinguals.

Barac showed that executive control enhanced in an L2 immersion program (2012). This section examines benefits of bilingualism in three aspects: Executive control, Problem solving & Creative thinking, and Metalinguistic ability benefits.

Benefits of Executive Control

Cognition refers to "inner processes and products of the mind that lead to *knowing* including attending, remembering, symbolizing, categorizing, planning reasoning, problem solving, creating and fantasizing" (Berk 2003, p218). Bialystok outlined that bilingual children developed *inhibitory control* for ignoring misleading cues, whereas attending to important information (2001). In other words, bilingual children have an ability to choose the relevant label

and inhibit the non-relevant information depending on the context (Bialystok and Marin, 2004). Thus, bilingual language systems change the appropriate brain area by practicing action and competition in order to strengthen the control attention. Interference inhibition has emerged in young children as they perform a lot of different cognitive tasks (Danenbach & Carr, 1994; Diamond & Taylor, 1996). Bialystok and Martin concluded that bilingual children perform well in given tasks such as dimensional change card-sorting and non-verbal tasks because of their improved inhibitory control(eg., Zelazo & Frye,1997; 2004). Nicolay and Poncelet investigated bilingual 8-year-old children who participated in an L2 immersion school program for 3 years and their monolingual peers(2013). Although these children were not fluent in their L2, the 3 year immersion program positively impacted attentional and executive functions (2013).

Cognitive flexibility is defined as the mental ability of being able to switch between languages according to new situations. As a part of executive functions, it is the ability to facilitate shifting between mental sets (Miyake et al.,2000). In this study, bilinguals responded and carried out their tasks much more quickly due to their increased cognitive flexibility (Prior & Macwhinney,2010). Dutch- English bilingual students and Dutch monolingual students in high school were matched based on age, education, gender, and digit span scores and were observed on a global-local switching task, as well as global (right hemisphere, RH) and local (left hemisphere, LH) processing, (eg.,Christoffels ,Haan, Steenbergen, Wildenberg, and Colzato,2015). Researchers found that the bilingual group as well as late bilingual students had smaller switching costs than monolinguals (2015). Thus, through various tasks of switching such as that of card sorting and color-shaping, this study showed improvement in executive function of shifting. However, the validity on the benefit of cognitive flexibility still remains uncertain due to the small sample size (Paap,Johnson & Sawi, 2014).

Benefits of Problem Solving and Creative Thinking

Peal and Lambert tested problem solving skills and creativity of bilingual children and monolingual children, and found that bilingual children outperform monolinguals on both verbal and non-verbal tasks; in particular, bilingual children were shown salient on tasks on mental flexibility and concept formation and introduced the concept of "balanced bilinguals" (1962). Bilingualism allows children to enhance their problem-solving skills and apply their knowledge to real-world situations as a study found that linguistic factors often affect solving word mathematics problem (Bernardo, 1991). According to Clarkson, when bilingual students in Papua New Guinea were tested in their second language (English), 39% of the errors were related to language, that is, the higher understanding of a language brought out better problemsolving performances (Bernardo & Calleja, 2005). However, some researchers suggested that language is not associated with computational and abstract mathematical aspects of word problems, but a more recent study refuted such opinions by publishing findings that bilingual students had higher levels of comprehension when solving problems in comparison to monolingual students (Bernardo, 2005). Thus, one reason to encourage bi- or multilingualism in children with SLI is the enhancement of problem-solving skills as they are often influenced by linguistic elements.

Albeit a controversial idea, bi- or multilingualism has a positive impact on a variety of cognitive domains such as creativity which is expressed by divergent thinking, an ability of forming new ideas or thoughts (Bruck, Lambert, & Tucker, 1976). This concept has been proven by an assessment of creativity and flexibility in the performances of balanced bilingual students based (Kessler & Quinn, 1987). Bialystok found out that bilingual children benefit by developing

control processes and analyzing potential conflict resolutions, including switching and updating (2001).

Although studies on the relationships between bi- or multilingualism and creativity are relatively scarce, some studies have claimed that bi- or multilingualism has negative effects or has no significant effect on a child; a study conducted by Ricciardelli found that partial bilinguals, those only fluent in one language, had no difference in these abilities when compared to monolingual children (1992). However, beginning in 1992, studies have found a connection between creativity and bi- or multilingualism (Simonton, 2008). Peal and Lambert claimed that 'balanced bilinguals,' children who are proficient equally in two languages, surpassed monolinguals on several creativity tasks; Cummins offered three hypotheses about the beneficial connection between bilingualism and divergent and creative thinking (1976). First, the bi- or multilinguals have a variety of experiences across various cultures. Second, bilingual children can switch spontaneously from one language to another in flexible thinking (the switching mechanism). Third, bi- or multilinguals can compare, contrast and differentiate word sounds and word meanings. Thus, multilinguals can gain more benefits related to their problem solving skills and creative thinking in comparison to monolinguals (Diaz, 1985).

Benefits of Metalinguistic Awareness

Metalinguistic skills are exploited as children facilitate their learning in language areas such as phonology, semantics, morphology, syntax, and pragmatics (Long, 2015). Bialystok and Codd cite 'control of processing' for metalinguistic skill (1997). In children, this skill is demonstrated in their ability to judge one's grammar and recognize words in a joke (Hakuta, 1990). Phonological metalinguistic skills can discriminate a word in a sentence and identify the word from production of separate phonemes. Semantic metalinguistic skills can categorize and

determine sensible meaning of the sentence; "I drank the chair" is not an appropriate sentences in English. Morphologic metalinguistic skills can pass judgement on tense, number, and appropriate morpheme use; "The boy has four toys," and "toy" has missing plural -s.Syntacticmetalinguistic skills can judge the type of sentence, word order of a sentence and S-V agreement within a sentence. Pragmatic metalinguistic skills can determine contextual relevance and inadequacy in conversation (Pawtowska, Robinson, & Seddoh, 2014).

Metalinguistic awareness is known as the "metalinguistic ability" and refers to the ability to think flexibly and abstractly as well as transfer knowledge about languages, that is, the ability to be able to understand both the literal meaning as well as an implied meaning (Bialystok, 1988; Campbell & Sais, 1995). Bialystok characterized metalinguistic awareness as "the analysis of linguistic knowledge into structured categories" and "the control of attentional procedures to select and process specific linguistic information(1986)." According to a recent finding, bilingual children have greater metalinguistic awareness than monolingual children (Bialystok, 1986).

Metalinguistic awareness leads children to better understanding of language structure and analysis. The advantages of metalinguistic awareness include pragmatic competence, the skill to respond appropriately, semantic competence, the skill to understand language in context, as well as translation, the skill to interpret different languages (Jessner, 2008; Galombos & Hakuta, 1988). Accordingly, pragmatic competence leads to conversation skill while making inferences and semantics leads to the understanding of multiple meanings. Therefore, metalinguistic awareness benefits the academic performance related to linguistic knowledge such as semantics, morphology, syntax, and pragmatic.

Minimalism in SLI

The minimalist program (MP) eliminates grammatical devices such as principles, conditions, rules and so on from Universal Grammar (UG) (Longa, Victor, & Lorenzo, 2008). The simpler the language rule, the easier it is to acquire. Thus, Algadi mentioned that minimalism functions should be accessible and simplified for learning (2013). This minimalism phenomenon can commonly be seen in a young child's use of language and this idea has led to new learning concepts about child language acquisition including that of SLI children. Wexler found out that young children commonly used infinitival forms where finite forms are required, a stage he called the Optional Infinitive (OI) in which children tends to minimize sentence forms (1994). For example, preschool children often use incorrect past tenses like goes, comed, seed, etc.In other words, during the OI stage, a child's words are often chosen in regard to only its context within a sentence even though it may be deemed grammatically incorrect by adults (Maftoon, & Shakouri, 2013). According to a recent finding, preschool children with SLI take an extended period of time using nonfinite clauses (Rice, & Wexler, 1996). Unlike OI which is a term specified for typically developing children, Wexler described it as an Extended Optional Infinitive(EOI) stage, which is characterized by under specification of grammatical tense in SLI children's grammar(1996). However, as a whole, linguistic evidence about minimalism is too scarce to explain how a child generates sentences prior to any linguistic experience (Maftoon, & Shakouri, 2013).

The standard Presentation-Production-Practice (PPP) formula of learning a target language is composed of 'simplified' dialogues and reading passages seeded with unnatural frequencies of linguistic features and constructions (Long, 2015). In modern linguistic theory, abstract linguistic principles with microscopic data have significantly increased and are more

intricate and diverse in grammatical structures (Roeper 2011). Roeper viewed the logic below, based on the traditional syntax containing "modules:"

- 1. All grammar does not demonstrate all grammatical modules.
- 2. A module demonstrates a Minimal Presence.
- 3. A bilingual child may allow a *Rich* module in grammar activate a Weaker Articulated Versionof the same module in the target language, that is, a grammar module shows a prominent form in one grammar and sends a signal to find it in another (Roeper, 2011).

These steps are for promoting small acquisition. Accordingly, the simpler the syntactic representation, the easier it would be to acquire (Samai, Sayyar, Sadighi, 2015).

In summary, by the trait of minimalism, the simpler the language rule is, the easier it is to acquire. It is very useful to children with SLI as aspects of the complexity of grammatical principles can be minimized and represented in the innate knowledge of all children.

The Significance of Early Intervention for SLI

Multilingualism in TD children is widespread and has a broad theoretical perspective, whereas that of children with SLI is not. All children with or without SLI follow the same learning goal related to bi- or multilingualism.

Despite the late talker's risk of having SLIs, the just 'wait-and-see' approach prevails in most countries because a high proportion of children with speech delay catch up using parent-based intervention in daily language. Thus, in 2003, mothers of children with SLI implemented Parent-Based Language Intervention in the Heidelberg (HPLI; Buschamann, 2011). Unfortunately, there are not many studies conducted on parent-based intervention for children in preschool or primary school.

Some researchers reviewed language intervention studies for children with SLI and supported the positive effect of bilingual intervention on both languages. Ebert et al. studied bilingual elementary school children with SLI (2014). This study conducted pre- and post-therapy based on expressive and receptive vocabulary during 75 minute sessions held 4 times a week, for a total of 6 weeks. Analysis of pre and post- test results concluded that bilingual interventions positively impacted both of the child's languages (Ebert et al. 2004).

A preschool held at the University of Kansas consists of morning and afternoon classes with 15 kids of ages 2-5. Each class is led by various pathologists and teachers. ½ of the 15 kids have language impairments, another ⅓ of the kids are TD children who are also second language learners and the final ⅓ of the kids are TD children who are native speakers of English. These classes focus on helping students acquire and develop communication skills by providing familiar real situations repeatedly through story time, activities and games. The uniqueness of this school, particularly, is providing simulated familiar or pseudo- situation and opportunities to use itto children with SLI in order for SLI children to acquire the communication pattern.TD children in this preschool also become a good example as a native speaker model to both SLI and L2 children.

Thus, early intervention for children with SLI enhances the development and minimizes their developmental delay. Neural circuits to create the foundation for learning and behavior are most flexible or "plastic" to acquire languages at early age(Nectac, 2011).

Summary

The literature review of my field project examined four aspects on the possibility of bilingualism in children with SLI in terms of several empirical evidences: positive evidence supporting bi- or multilingual SLI, the benefits of bi-or multilingualism in SLI, minimalism in

SLI, and the significance of early intervention for SLI bi- or multilingualism. Accordingly, the benefits on bi- or multilingualism and the importance of early intervention are quite prominent. However, there is scarce information related to bi- or multilingualism in SLI. Thus, further studies of potential of bi- or multilingualism on children with SLI should continue to be developed.

CHAPTER III THE PROJECT AND ITS DEVELOPMENT

Brief Description of the Project

Development of the Project

CHAPTER III THE PROJECT AND ITS DEVELOPMENT

Brief Description of the Project

This field project is presented in the form of a curriculum with six sample modules that are self-contained and well-tailored to each type of an individual so that he or she can practice isolated grammatical structures as a play-based. It can serve as a reference for teachers, pathologists, and public institutions who are looking to help bi-or multilingual education for children with SLI. This project is based on the characteristics of SLI and focuses more on SLI children ages three to six years old. However, it can be extended to apply to children afflicted with other language impairments. The goal of this curriculum is to enhance learners' language competence and help them develop a sense of dual languages from an early age.

Each module is designed as a 25 minute class taken five times a week for a total of ten weeks depending on children's condition. These six basic modules include crafts, games, and puzzles in order to solidify their learning in the Cognate, Tense Morpheme, Pragmatic, Semantics, and Articulate domains. Each module has an emphasized key point in each daily lesson for teachers and learners. This is an English-Spanish example.

Cognates module A

- 1. Food banana, broccoli, coconut
- 2. Shapes circle, triangle, rectangle
- 3. Transportation ambulance, train, car
- 4. Animals –carmel, elephant, lion
- 5. Places park, hospital, bank

The cognate module allows children to familiarize themselves with words that are similar in spelling, meaning, and pronunciation in their two languages, in this case English and Spanish.

Most words are very simple and easy to teach, but there is a range in difficulty within these words themselves. Thus, the teacher can choose the words they want to teach based on their child's learning level.

• Tense morpheme module B

- 1. Present tense
- 2. Past tense
- 3. Future tense

The tense module links tense and morpheme in order to make formulating simple sentences easier. Utilizing music, it can be more effective understanding of the learning of tense morpheme.

• Pragmatic module C (creative association)

- 1. Heart
- 2. Umbrella
- 3. Soccer ball
- 4. Doctor's office
- 5. Party

The pragmatic module promotes a realistic and practical mode of communication by beginning the practice of visualization with familiar words. Children can visualize a word once given the respective picture.

• Articulate module D

- 1. What is your name?
- 2. How old are you?
- 3. How are you?

- 4. What is this?
- 5. What is that?

The articulate module provides opportunities for children to express themselves clearly in the target language while helping them fix wrong pronunciations.

- Semantic module E (Story book)
- 1. Are you my mother?
- 2. The very hungry caterpillar.
- 3. Let's eat!
- 4. Bear at home.
- 5. Where are the Baby's Shoes?

The semantic module helps children understand the meaning or significance of a phrase that is in the SLI children's target language. It can be supplemented with materials such as puppets in order to help and enhance the children's understanding of each story.

This curriculum has detailed modules and a teacher's guideline in the appendix.

Development of the Project

The idea of this field project was inspired by my son with SLI. Most people think that children with a language disorder do not have the capability of being bi -or multilingual.

Unfortunately, parents themselves still question the possibility of bi- or multilingualism of their SLI children. Furthermore, most people do not have any knowledge about what kind of problems SLI children have and which programs would work for them. Even I did not recognize this plausibility of pursuing multiple languages until I saw that my son count to ten in Spanish.

In terms of the idea behind developing a curriculum, I had an opportunity to observe a Korean class for children ages three to six. These children were English speakers and were

learning Korean as their second language. Although the teacher was teaching the Korean alphabet to her students, her teaching was rather disorganized and confused. After further investigation, I ended up discovering that they had no curriculum for teaching each level of Korean proficiency, a flaw consumed time efficiently. Moreover, the lessons did not take into account the children's levels of intelligence or their immature age. I thought that the lesson should be easy especially because of their young age. I realized how much important the equipped second- language curriculum for SLI would be especially for kids such as my son.

Bi - or multilingual curriculums have rarely been developed for children with SLI. Thus, I thought about initiating an individualized curriculum for SLI children that takes into their characters and defects into account. If a well-tailored curriculum for each child is provided, these children would benefit equivalently as much as TD children would in the global society.

I investigated many studies about SLI characteristics and analyzed them thoroughly. I have also observed my son's language characteristics in order to design a more effective curriculum. I came to know five things about SLI learning style accordingly. First, an easy and intensive approach is an essential factor for bi-or multilingualism in SLI children. Their learning would not work for them when a lesson is hard and complicated. Second, the lesson needs materials that reinforce long term memory because generally, SLI children have often showed a problem accessing long term memory functions. So this curriculum reinforces long term memory functions by utilizing audial and visual aids. Third, the SLI children's ability to understand falls short of the standard. In this respect, they need repeated instruction when completing a certain task but different ways for same concepts. Fourth, SLI children have difficulties in figuring out the unit pattern, which is very crucial for developing their ability to solve problems, such as ABCABC(?)BC.... Training the ability to find patterns helps a child reach the core of a matter

and develop the ability to solve problems through concentration, memory, and intuition. Finally, SLI children are the most vulnerable to written areas but are strong on crafts. Strangely, they like coloring but are apt to color widely outside of lines. My curriculum considered all of these characteristics of SLI.

The reason I chose SLI children ages three to six for my curriculum is that it is the optimal time for intervention because the brain is very flexible during this period of time. This is good not only for fixing inaccurate pronunciation, but also for learning language patterns spontaneously. In the case of my son, he has been learning Korean for a total of three hours per week, Spanish for half an hour per week, and English thirty hours a week. It was interesting to find that there has been a slow, but gradual improvement in three languages. This plausibility of pursuing multiple languages emphasizes the need for a curriculum that fills up lacunas in language defects of SLI children. Thus, I have created a bilingual curriculum for SLI children.

The Project

The project in its entirety can be found in the appendix.

CHAPTER IV CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Recommendations

CHAPTER IV CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Specific Language Impairment (SLI) is a delayed development of language in which individuals present impairment only in their language functions. It is one of the most common childhood learning disabilities, affecting approximately 7 to 8 percent of kindergarteners in the United States. Unfortunately, regardless of this statistic, the attempts to develop a curriculum for these children are very sparse.

Due to the lack of adequate information on the topic, pursuing bi- or multilingualism in children with Specific Language Impairment (SLI) is discouraged within society because it is generally thought to impede the development of their primary language (Lenado, 1989). This misconception led to the retardation in the development of a curriculum specified for teaching multiple languages to children with SLI.

In the beginning of the 21st century, however, the economic climate and the attitude towards education has drastically changed towards encouraging children to learn multiple languages and offering equal opportunity to all individuals. This phenomenon caused studies on bi- or multilingual SLI children to increase and enlightened teachers and parents to take on the challenge of following a new learning paradigm based on bi- or multi-linguistic education specifically for SLI children. Thus, the mindset towards the possibility of bi- or multilingualism on children with SLI has shifted positively.

The purpose of this project is to validate the potential of bi- or multilingualism in SLI children and to create a new curriculum based specifically on SLI children's learning capabilities. This project can be used as a reference for creating a curriculum that is

individualized and modularized for each child with SLI. The goal of this project is to help children with SLI succeed in learning the target language through simple and easy methods.

This project is significant because it reinforces language habit formation in the classroom, helps children with SLI improve their capacity of acquiring a target language, and maximizes their cognitive and metalinguistic ability. Ultimately, this curriculum resets the limits set on SLI children for communicating with the world.

It is more important for the teacher to get an accurate sense of children with SLI and take into account which module is best suitable to them. By effectively analyzing a child and implementing this curriculum, each module will be able to facilitate more their language development. As such, this curriculum is designed to provide a well-tailored approach that maximizes the SLI child's learning.

My future goal is to expand the age limits to children over 7 years old and build up the curriculum to become more detailed.

Recommendations

The curriculum toward SLI children needs to be extended the scope, such as ages, of the investigation for bi- or multilingualism of SLI children. The current curriculum only focuses on the aspect of grammatical domain. However, I highly recommend that further study would be explored at different domains, and run the training programs such as articulating and speaking programs for maximizing outcomes for bi- or multilingualism of SLI children. In addition, each curriculum should be provided well-detailed evaluations in order to analyze the SLI children accurately.

REFERENCES

- Algadi, D. (2013). The Acquisition of Relative Clauses: How Do. UWM Digital commons.
- Benton, A. L. (1964). Developmental Aphasia and Brain Damage. *Cortex*, *1*(1), 40-52. doi:10.1016/s0010-9452(64)80012-5
- Berk, Laura E.(2003). and Elizabeth A. Levin. *Child development*. Allyn and Bacon, 2003.
- Bernhardt, B., & Major, E. (2005). Speech, language and literacy skills 3 years later: A follow-up study of early phonological and metaphonological intervention.
- Bialystok, E. (1986). Factors in the growth of linguistic awareness. *Child Development*, *57*, 498-510.
- Bialystok, E. (1999). Cognitive complexity and attentional control in the bilingual mind. Child Development, 70, 636–644.
- Bialystok, E. (2001). *Bilingualism in development: Language, literacy, and cognition*. NY, USA: Cambridge University Press.
- Bialystok, E., & Martin, M. M. (2004). Attention and inhibition in bilingual children: Evidence from the dimensional change card sort task. *Developmental Science*, *7* (3), 325–339.
- Bishop, D. V., & Edmundson, A. (1987). Language-Impaired 4-Year-Olds. *Journal of Speech* and *Hearing Disorders*, 52(2), 156. doi:10.1044/jshd.5202.156
- Bishop, D. V., & Leonard, L. B. (2000). Speech and language impairments in children: causes, characteristics, intervention, and outcome. Hove, East Sussex: Psychology Press.
- Boyle, J., Mccartney, E., O'Hare, A., & Law, J. (2010). Intervention for mixed receptive-expressive language impairment: a review. *Developmental Medicine & Child Neurology*, 52(11), 994-999. doi:10.1111/j.1469-8749.2010.03750.x

- Brooks, N. (1964). *Language and language learning: Theory and practice* (2nd ed.). New York: Harcourt Brace.
- Brown, H. D. (2008). *Principles of language learning and teaching*. White Plains, NY: Pearson Longman.
- Bruck, M. (1982). Language impaired children's performance in an additive bilingual educationprogram. *Applied Psycholinguistics*, *3*(01), 45-60. doi:10.1017/s014271640000415x
- Campbell, R., & Sais, E. (1995). Accelerated metalinguistic (phonological) awareness in bilingual children. *British Journal of Developmental Psychology*, *13*(1), 61-68. doi:10.1111/j.2044-835x.1995.tb00664.x
- Caramazza, A., & Brones, I. (1979). Lexical access in bilinguals. *Bulletin of the Psychonomic Society*, *13*(4), 212-214. doi:10.3758/bf03335062
- Center on the Developing Child at Harvard University (2008). *InBrief*: *The science of early childhood development*. http://developingchild.harvard.edu/download_file/-/view/64/
- Choi, S. (2015). Assessment of Children with Language Developmental Delay: Korean Infant and Child Development Test (KICDT) and Preschool Receptive-Expressive Language Scale (PRES), Sequenced Language Scale for Infant (SELSI). *Journal of the korean child neurology society*, 23(2), 51-56. doi:10.26815/jkcns.2015.23.2.51
- Chung, H. (2008). Speech and language disorders in children: *Korean Journal of Pediatrics* vol.51,No.9

- Conti-Ramsden, G. (2003). Processing and Linguistic Markers in Young Children With Specific Language Impairment (SLI). *Journal of Speech Language and Hearing Research*, 46(5), 1029. doi:10.1044/1092-4388(2003/082)
- Cummins, J. (1976). The influence of bilingualism on cognitive growth: A synthesis of research findings and explanatory hypotheses. Working Papers on Bilingualism, 9, 1–44.
- Darcy, N. T. (1946). The effect of bilingualism upon the measurement of the intelligence of children of preschool age. *Journal of Educational Psychology*, *37*(1), 21-44. doi:10.1037/h0056165
- Dulay, H. C., & Burt, M. K. (1973). Should We Teach Children Syntax? *Language Learning*, 23(2), 245-258. doi:10.1111/j.1467-1770.1973.tb00659.x
- G., & H. (1988). Subject-specific and task-specific characteristics of metalinguistic awareness bilingual children.
- Genesee, F., Crago, M. B., & Paradis, J. (2008). Dual language development and disorders: a handbook on bilingualism and second language learning. Baltimore: Brookes.
- Gutiérrez-Clellen, V., Simon-Cereijido, G., & Sweet, M. (2012). Predictors of Second Language

 Acquisition in Latino Children With Specific Language Impairment. *American Journal of Speech-Language Pathology*, 21(1), 64. doi:10.1044/1058-0360(2011/10-0090)
- Hakuta, K. (1990). Language and cognition in bilingual children. Retrieved 1990.
- Haynes, C., & Naidoo, S. (1991). *Children with specific speech and language impairment*.

 London: Mac Keith Press.
- In A. Padilla, C. Valdez & H. Fairchild (Eds.), *Bilingual education: Issues and strategies*. (Pp. 47-59). Newbury Park, California: Sage Publications.
- *International Journal of Language & Communication Disorders*, 40(1), 1–27.

- International Journal of Speech-Language Pathology, 15(3), 223-233. doi:10.3109/17549507.2013.783113
- Jeong, Hee Jeong (2008). "Speech and language disorder in children." doi:10.3345/kjp.2008.51.9.922.
- Jessner, U. (2008). A DST Model of Multilingualism and the Role of Metalinguistic Awareness. *The Modern Language Journal*, 92(2), 270-283. doi:10.1111/j.1540-4781.2008.00718.x
- Kim, K., Hwang, S,.(2014). Grammaticality judgments and Correlation of related variables in Children with Autism Spectrum Disorders: *Korean Journal of Educational p124-147*
- Kohnert, K. (2013). *Language disorders in bilingual children and adults*. San Diego: Plural Publishing.
- Krashen, S. D., & Terrell, T. D. (1995). *The natural approach: language acquisition in the classroom*. New York: Phoenix.
- Krizman, J., Skoe, E., Marian, V., & Kraus, N. (2014). Bilingualism increases neural response consistency and attentional control: Evidence for sensory and cognitive coupling. *Brain and Language*, *128*(1), 34-40. doi:10.1016/j.bandl.2013.11.006
- Leonard, L. B. (1989). Language learnability and specific language impairment in children. Applied Psycholinguistics, 10(02), 179. doi:10.1017/s0142716400008511
- Leonard, L. B. (2017). Specific Language Impairment. Oxford Research Encyclopedia of Psychology. doi:10.1093/acrefore/9780190236557.013.64
- Long, M. H. (2015). Second language acquisition and task-based language teaching. Chichester: Wiley Blackwell.
- Longa, V. M., & Lorenzo, G. (2008). What about a (really) minimalist theory of language acquisition? *Linguistics*, 46(3). doi:10.1515/ling.2008.018

- Maftoon, P., & Shakouri, N. (2013). Minimalism in SLA. *Journal of Language Teaching and Research*, 4(5). doi:10.4304/jltr.4.5.1091-1097
- Miller, C. A., Kail, R., Leonard, L. B., & Tomblin, J. B. (2001). Speed of Processing in Children

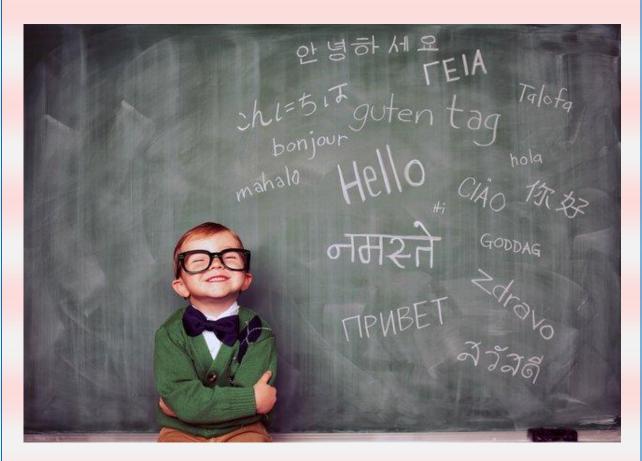
 With Specific Language Impairment. *Journal of Speech Language and Hearing*Research, 44(2), 416. doi:10.1044/1092-4388(2001/034)
- Nicolay, A.C, & Poncelet, M. (2013). Cognitive advantage in children enrolled in a second-language immersion elementary school program for 3 years. *Bilingualism:Language and Cognition*, 16 (3), 597–607.
- NIDCD: what we do. (2004). Bethesda, MD: U.S. Dept. of Health and Human Services, National Institutes of Health, National Institute on Deafness and Other Communication Disorders.
- Pallier, C. (2007). Critical periods in language acquisition and language attrition. *Studies in Bilingualism Language Attrition*, 155-168. doi:10.1075/sibil.33.11pa
- Paradis, J. (2007). Bilingual children with specific language impairment: Theoretical and applied issues. *Applied Psycholinguistics*, 28(03). doi:10.1017/s0142716407070300
- Paradis, J. (2008). Tense as a clinical marker in English L2 acquisition with language delay/impairment. *Current Trends in Child Second Language Acquisition Language Acquisition and Language Disorders*, 337-356. doi:10.1075/lald.46.17par
- Paradis, J., Crago, M., Genesee, F., & Rice, M. (2003). French-English Bilingual Children With SLI. *Journal of Speech Language and Hearing Research*, 46(2), 404. doi:10.1044/1092-4388(2003/er01)
- Pawtowska, M., Robinson, S., & Seddoh, A. (2014). Detection of lexical and morphological anomalies by children with and without language impairment. *Journal of Speech, Language, and Hearing Research*, 57(1), 236-247.

- Penfield, W. (2016). *Speech and brain mechanisms*. Place of publication not identified: Princeton University Press.
- Rice, M. L. (2013). Language growth and genetics of specific language impairment.
- Rice, M. L., & Oetting, J. B. (1993). Morphological Deficits of Children With SLI. *Journal of Speech Language and Hearing Research*, *36*(6), 1249. doi:10.1044/jshr.3606.1249
- Rice, M. L., & Wexler, K. (1996). Toward Tense as a Clinical Marker of Specific Language
 Impairment in English-Speaking Children. *Journal of Speech Language and Hearing*Research, 39(6), 1239. doi:10.1044/jshr.3906.1239
- Rice, M. L., Noll, K. R., & Grimm, H. (1997). An Extended Optional Infinitive Stage in German-Speaking Children With Specific Language Impairment. *Language Acquisition*, 6(4), 255-295.doi:10.1207/s15327817la0604_1
- Acquisition, 6(4), 255-295. doi:10.1207/s15327817la0604_1
- Rice, M. L., Wexler, K., & Cleave, P. L. (1995). Specific Language Impairment as a Period of Extended Optional Infinitive. *Journal of Speech Language and Hearing Research*, 38(4), 850. doi:10.1044/jshr.3804.850
- Richards, J. C., & Rodgers, T. S. (2001). *Approaches and methods in language teaching* (2nd ed.). Cambridge: Cambridge University Press.
- Rogers, C. R. (1977). On personal power. N.Y.: Delacorte Press.
- Silva, E. D., Mclaughlin, M., & Richards, M. (2007). Bilingualism and the Globalized New Economy: The Commodification of Language and Identity. *Bilingualism: A Social Approach*, 183-206. doi:10.1057/9780230596047_9

- Simonton, D. K. (2008). Bilingualism and creativity. In J. Altarriba & R. R. Heredia (Eds.), An introduction to bilingualism: Principles and processes (pp. 147–166). Mahwah, NJ: Lawrence Erlbaum.
- Stainback, William, Susan Stainback, and Gregory Stefanich. "Learning Together in Inclusive Classrooms." *TEACHING Exceptional Children* 28, no. 3 (1996): 14-19. doi:10.1177/004005999602800303.
- Stark, R. E., & Tallal, P. (1981). Selection of Children with Specific Language Deficits. *Journal of Speech and Hearing Disorders*, 46(2), 114. doi:10.1044/jshd.4602.114
- Talla, P. (1988). Developmental Language Disorders: Part I- Definition. *Human Communication Canada/Communication Humaine Canada*, Vol.12, No.2,
- The Short-and-Sweet IEP Overview. (n.d.). Retrieved February 18, 2018, from http://www.parentcenterhub.org/iep-overview/
- The World Economic Forum. (n.d.). Retrieved February 12, 2018, from https://www.weforum.org/

APPENDIX

Curriculum for Bi- or Multilingualism of SLI Children



Jeongmin Ryou

TABLE OF CONTENTS

Lesson plan	3
Weekly Curriculums	8
1. 1 st & 2 nd week	8
2. 3 rd & 4 th week	11
3. 5 th & 6 th week	14
4. 7 th & 8 th week	17
5. 9 th & 10 th week	21
Module Cognate Examples	25

1st – 2nd Weekly Lesson Plan

Grade Level Cluster 3-6 age children with SLI

Spanish as a Second Language

Lesson time : 25 minutes

Learning period: 2 weeks for a set of module (Mon~Fri)

(yet, depends on students' condition)

Materials: music, picture, puppets, audio, flash cards

1st-2nd Weekly Modules' Summary:

This module A taps into the students' perception of other language through three Spanish words: banano, broccoli, coco using music with Spanish. Module B provides a present morpheme 'dormir' in Spanish. Module C provides a heart picture and creates couple of associated words in English first and matches them suitable words in Spanish. Module D provides a simple self- introduction about name in Spanish. Module E provides a story book 'Eres mi mamá?' in Spanish with auditory and puppets materials.

Learning Target

Level 1	Be able to identify three daily words in Spanish and to match them in
	English from oral directions
Level 2	Be able to find the learning words and sentences in Spanish in the flash
	cards from oral directions.
Level 3	Be able to speak daily learning words in Spanish.

Formative Assessment:

- Students can sort Spanish words and English ones.
- Students can match three food words in Spanish up English ones.
- Students can speak three food words in Spanish.
- Students can speak own one's name in Spanish.

3rd – 4th Weekly Lesson Plan

Grade Level Cluster 3-6 ages children with SLI

Lesson time : 25 minutes

Learning period: 2weeks for a set of module (Mon~Fri)

(yet, depends on students' condition)

Materials: music, picture, puppets, audio, flash cards

3rd - 4th Weekly Modules' Summary:

This module A taps into the students' perception of other language through three Spanish words related to shapes: Circle - círculo, triangle- triángulo, rectangle-rectángulo using music with Spanish. Module B provides a past tense morpheme 'dormido' in Spanish. Module C provides a rainbow picture and creates couple of associated words in English first and matches them suitable words in Spanish. Module D provides a simple question about age in Spanish. Module E provides a story book 'La oruga muy hambrienta' in Spanish with auditory and puppets materials.

Formative Assessment:

- Students can sort Spanish shape words and English ones.
- Students can match three shape words in Spanish up English ones.
- Students can speak three shape words in Spanish.
- Students can question about age in Spanish.

5th – 6th Weekly Lesson Plan

Grade Level Cluster 3-6 ages children with SLI

Spanish as a Second Language

Lesson time: 25 minutes

Learning period: 2weeks for a set of module (Mon~Fri)

(yet, depends on students' condition)

Materials: music, picture, puppets, audio, flash cards

5th - 6th Weekly Modules' Summary:

This module A taps into the students' perception of other language through three Spanish words related to transportation: ambulance -ambulancia, train -tren, and car - carro using music with Spanish. Module B provides a future tense morpheme 'dormiré' in Spanish. Module C provides a soccer ball picture and creates couple of associated words in English first and matches them suitable words in Spanish. Module D provides a simple greeting question in Spanish. Module E provides a story book '¡Comamos! 'in Spanish with auditory and puppets materials.

Formative Assessment:

- Students can sort Spanish transportation words and English ones.
- Students can match three transportation words in Spanish up English ones.
- Students can speak three transportation words in Spanish.
- Students can question about greeting in Spanish.

7th – 8th Weekly Lesson Plan

Grade Level Cluster 3-6 ages children with SLI

Spanish as a Second Language

Lesson time: 25 minutes

Learning period: 2weeks for a set of module (Mon~Fri)

(yet, depends on students' condition)

Materials: music, picture, puppets, audio, flash cards

7th - 8th Weekly Modules' Summary:

This module A taps into the students' perception of other language through three Spanish words related to animals: camel-camelo, elephant-elefante, and lion – león using music with Spanish. Module B provides a present tense morpheme 'gusta' in Spanish. Module C provides a doctor's office picture and creates couple of associated words in English first and matches them suitable words in Spanish. Module D provides the expression about how to ask things in Spanish. Module E provides a story book 'Oso in casa' in Spanish with auditory and puppets materials.

Formative Assessment:

- Students can sort Spanish animal -words and English ones.
- Students can match three animal- words in Spanish up English ones.
- Students can speak three animal-words in Spanish.
- Students can question about how to ask things in Spanish.

9th – 10th Weekly Lesson Plan

Grade Level Cluster 3-6 age children with SLI

Spanish as a Second Language

Lesson time: 25 minutes

Learning period: 2weeks for a set of module (Mon~Fri)

(yet, depends on students' condition)

Materials: music, picture, puppets, audio, flash cards

9th - 10th Weekly Modules' Summary:

This module A taps into the students' perception of other language through three Spanish words related to places: bank- banco, hospital- hospital, and park-parquet using music with Spanish. Module B provides past tense morpheme 'gusto' in Spanish. Module C provides a party picture and creates couple of associated words in English first and matches them suitable words in Spanish. Module D provides the expression about how to ask things in Spanish. Module E provides a story book '¿Dónde están los zapatos del bebé? In Spanish with auditory and puppets materials.

Formative Assessment:

- Students can sort Spanish place -words and English ones.
- Students can match three place- words in Spanish up English ones.
- Students can speak three place-words in Spanish.
- Students can question about how to ask things in Spanish.

1st week & 2nd week

Target language: Spanish as a Second Language

Lesson Time: 25 minutes

Target Proficiency Level: kids with SLI 3-6 aged

Goals:

- 1. Students identify familiar fruit words, present tense 'dormir', and one's own name in Spanish.
- 2. 2. Students can know the word 'mamá' in Spanish.

Rationale: Developing language functions through learning a new language.

Monday

Module A: Cognates

A -1. Food (English - Spanish)



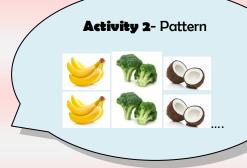
Activity 1

Listen to the word and find an appropriate flash card.

banana - banano



broccoli - brócoli





coconut - coco

Teaching tip

Make sure you repeat the pattern at least 3times to help students to figure out the unit.

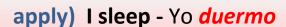
Tuesday

Module B: Tense Morpheme

B-1. Present Tense

3

sleep - dormir





Teaching tip

Have students listen to music related to present tense and repeat

Wednesday

Module C: Pragmatic

C-1. Creative Association

(English-Spanish)

mommy

love

friend -

Activity 1

Draw a heart with dotted line papers

I <u>love</u> mommy - <u>Amo</u> a mi mamá amigo



friend

Activity 2

Give the picture to students and have them induce words associated with it.

Thursday

Module D: Articulate

D-1. Self- Introduce (name) (English- Spanish)



Teaching tip

Help students practice it slowly and Impart an accurate pronunciation to students.

A: What is your name? - ¿Cuál es tu nombre?

B: My name is Justin Kim – Mi nombre es Justin Kim

Activity

Sing songs with motion.

Friday

Module E: Semantics



E-1. Story book (Spanish)
"Are you my mother?"

Teaching tip 2

Utilize puppets

Teaching tip 1

Utilize audio aids first and then show pictures for better understanding.

Activity 1

Spot –the- difference related to a story

Activity 2

Find the True or False pictures related to a story

3rd week & 4th week

Target language: Spanish as a Second Language

Lesson Time: 25 minutes

Target Proficiency Level: kids with SLI 3-6 age

Aims:

- 1. Students learn familiar shape words, past tense 'dormido' and one's own age in Spanish.
- 2. 2. Students learn about an age-question in Spanish.

Rationale: Developing language competence to acquire a new language.

Monday

Module A: Cognates

A -2. Shapes (English - Spanish)

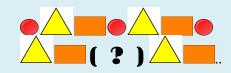
Activity 1

Listen to the word and find same shapes around us.



circle - círculo

Activity 2 — pattern





triangle- triángulo

Teaching tip

Make sure you repeat the pattern at least 3times to help students to figure out the unit.



rectangle- rectángulo

Activity 3

Make shapes with clay.

Tuesday

Module B: Tense Morpheme

B-2. Past Tense



Slept -dormido





I slept - dormí

Teaching tip

- Have students Listen and repeat
- Help them to speak the learning individually by rotation

Wednesday

Module C: Pragmatic

C-2. Creative Association (English-Spanish)



It's rain - *Es lluvia*It is a rainbow - *Es un arcoiris*

Activity 1

Give the picture to students and have them induce words associated with it.

Activity 2

Fill a half picture of umbrella.

Thursday

Module D: Articulate

D-2. How old are you? (English- Spanish)



♠: A: How old are you? - ¿Cuantos años tienes?

B: I am four years old. - Tengo cuatro años.

Teaching tip

- Listen and repeat
- Help students practice it slowly and Impart an accurate pronunciation to

Activity

Sing songs with motion.

Friday

Module E: Semantics

E-2. Story book (Spanish)

"The very hungry caterpillar"



Activity 1

Find the True or False pictures related to a story.

m^> ■ ■ ■ ■ ■ ■ ■

Teaching tip

Utilize audio aids first and then show pictures for better understanding.

Activity 2

Spot —the- difference related to a story.

5th week & 6th week

Target language: Spanish as a Second Language

Lesson Time: 25 minutes

Target Proficiency Level: kids with SLI 3-6 aged

Aims:

- 1. Students learn familiar transportation words, future tense 'dormiré' in Spanish.
- 2. 2. Students learn about greeting expression in Spanish.

Rationale: Concrete the concepts of each word in Spanish and push the boundaries of vocabulary.

Monday

Module A : Cognates

A -3. Transportation (English - Spanish)



ambulance - ambulancia



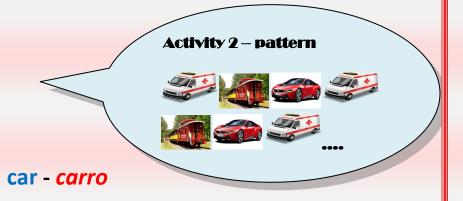
Activity 1

Listen to sound of vehicles and find an appropriate one.

train -tren

Activity 3Matching shapes





Tuesday

Module B: Tense Morpheme

B-3. Future Tense



Will sleep - dormiré



I will sleep - voy a dormir

Teaching tip

- Have students remind past, present tense.
- Listen and repeat

Wednesday

Module C: Pragmatic

C-3. Creative Association (English-Spanish)

Activity 1

Draw a soccer ball with colored pencils.



ball

Activity 2

Give the picture to students and have them induce words associated with it.

I like soccer - Me gusta el fútbol

la pelota

ball -

Thursday

Module D: Articulate

D-3. How are you? (English-Spanish)

♠: A: How are you? - ¿Cómo estás?

B: Good. - Bueno.

Activity

Sing songs with motions.

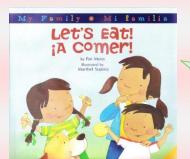
Teaching tip

- Listen and repeat
- Help students practice it slowly and Impart an accurate pronunciation to students.

Friday

Module E: Semantics

E-3. Story book (Spanish)
"Let's eat!"



Activity 1

Find the True or False pictures related to a story.

Teaching tip

Utilize puppets & audio aids Show pictures for better understanding.

Activity 2

Spot –the- difference related to a story.

7th-week & 8th week

Target language: Spanish as a Second Language

Lesson Time: 25 minutes

Target Proficiency Level: kids with SLI 3-6 age

Aims:

- 1. Students learn familiar animal words, present tense 'gusta' and the words, 'doctor' and 'shot'(trio) in Spanish.
- 2. 2. Students learn how to question things in Spanish.

Rationale: Extend the language boundaries in Spanish.

Module A: Cognates

A- 4. Animals (English – Spanish)



Camel - Camello



Activity 1

Listen the sound and find its animal.

elephant - elefante





Activity 2 pattern





lion – león

Module B: Tense Morpheme

B-4. Present Tense



Activity

Apply learned words so far. Ex) broccoli, tren (train)..

Teaching tip

- Listen and repeat
- Show pictures (learned words) and have students apply them.
- 剃 I like a banana Me gusta un banano.

Module C : Pragmatic

C-4. Creative Association (English-Spanish)



shot

Activity

Playing Doctor

Teaching tip

Prepare stethoscopes, shots for Playing Doctor.

doctor

18

I see a doctor. - Veo un doctor.

I see a shot. - Veo un tiro.

Module D: Articulate

D-4.What is this? (English- Spanish)



Activity 1

Use Flash cards and have students answer the question.

Activity 2

Sing a song with motion

A: What is this? - ¿Que es esto?

B: It is a car. - Es un auto.

Teaching tip

Utilize the song to learn this expression and flash cards.

Module E : Semantics

E-4. Story book (Spanish

"Bear at home"

Activity 1

Find the True or False pictures related to a story.



Activity 2

Spot –the- difference related to a story.

Teaching tip

Utilize puppets & audio aidsShow pictures for better understanding.

9th-week & 10th week

Target language: Spanish as a Second Language

Lesson Time: 25 minutes

Target Proficiency Level: kids with SLI 3-6 age

Aims:

- 1. Students learn familiar animal words, past tense 'gusto' and the words,'cumpleaños' and 'fiesta' in Spanish.
- 2. 2. Students learn how to question things in Spanish.

Rationale: Extend the language boundaries in Spanish.

Module A: Cognates

A-5. Places (English - Spanish)





park - parque



Activity 1

Listen the sound and find its place.

Activity 2 pattern



hospital-hospital



bank - banco

Module B: Tense Morpheme

B-5. Past Tense



Activity

Apply learned words so far. Ex) broccoli, tren (train)..

Teaching tip

Listen and repeat.

Show pictures (learned words) and have students apply them.

I liked a ball - Me gustó una pelota.

a banana - un banano

Module C : Pragmatic

C-5.Creative Association (English-Spanish)

Activity 1

Blow balloons and make cone hats with color paper.



birthday

party

Happy birthday - Feliz cumpleaños

Happy party - Feliz fiesta

Activity 2

Learn a birthday song.

Module D: Articulate

D-5. What is that? (English- Spanish)



Activity 1

Use Flash cards and have students answer the question.

Activity 2

Sing a song with motion

A: What is that? - ¿Que es esto?

B: It is a bank. - Es un banco.

Teaching tip

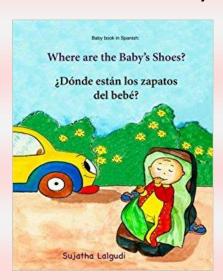
Utilize the song to learn this expression and flash cards.

Module E: Semantics

E-5. Story book (Spanish)



"Where are the Baby's Shoes?"



Activity 1

Find the True or False pictures related to a story.

Activity 2

Spot -the- difference related to a story.

Teaching tip

🐠 - Utilize puppets &audio aids Show pictures for better understanding.

Module Cognate examples (for teachers)

(English - Spanish)

1. Food

Pizza - pizza

Hamburger - hamburguesa

Steak - bistec

Pasta - pasta

Cereal- cereal

Spaghetti - espaquetis

Lasagna- lasaña

Mango - mango

Tortilla -tortilla

Ensalada -salad

Broccoli- brócoli

Tea-té

Tomato-tomate

Pancakes- panqueques

Chips-chips

Salsa-salsa

Banana-banano

Melon -melón

Lemon- limón

Lemonade-limonada

Yogurt- yogur

2. Shapes

Circle-circulo

Cone-cone

Cube-curva

Cylinder-cilindro

Ellipses-elipse

Hexagon-hexagon

Octagon-octagon

Oval- oval

Pentagon-pentagon

Point-punto

Pyramid- Pirámide

Rectangle-Rectángulo

Rhombus-rombo

Semicircle-Semicírculo

Sphere-esfera

Triangle-Triángulo

Tube-tubo

3. Transportation

Air-aire

Airplane-aeroplano

Ambulance-ambulancia

Automobile-automóvil

Bicycle-bicicleta

Boat-bote

Bus-autobús

Canoe-canoa

Car-carro

Gas-gasolina

Helicopter-helicóptero

Map-mapa

Motor-motor

Motocycle-motocicleta

Route-ruta

Submarine-submarino

Taxi-taxi

Tractor-tractor

Train-tren

Wagon-vagón

4. Animals

Camel-camello

Crocodile-cocodrilo

Dinosaur-dinosaurio

Dolphin-delfín

Elephant-elefante

Giraffe-jirafa

Gorilla-gorila

Kangaroo-canguro

Lion-león

Tiger-tigre

Zebra-cebra

5. Places

Supermarket-supermercado

Restaurant-restaurante

Café-café

Bank-banco

Hospital-hospital

Dental clinic- clínica dental

Pharmacy-farmacia

Laboratory-laboratorio

University-universidad	
Museum-museo	
29	