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Teaching Literacy to Nonliterate Spanish-Speaking Students with Interrupted Formal Education (SIFE): The Freire-UDL Literacy-Alfabetización Model and Guide

Maria João Mendes
mmendes@lesley.edu

Teaching Literacy to Nonliterate Spanish-Speaking Students with Interrupted Formal Education (SIFE): The Freire-UDL Literacy-*Alfabetización* Model and Guide

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By

MARIA JOÃO MENDES

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DISSERTATION APPROVAL FORM

Approvals

In the judgment of the following signatories, this Dissertation meets the academic standards that have been established for the Doctor of Philosophy degree.

Dr. Maria de Lourdes B. Serpa: Signature: _____ _____

Doctoral Committee Chair Date

Dr. Mary Cazabon: Signature: _____ _____

Doctoral Committee Member Date

Dr. Claudia Rinaldi: Signature: _____ _____

Doctoral Committee Member Date

Dr. Susan Patterson Signature: _____ _____

Director, Ph.D. Individually Designed Date

Dr. Brenda Matthis Signature: _____ _____

Director, Ph.D. Educational Studies Date

Dr. Jonathon H. Gillette Signature: _____ _____

Dean, Graduate School of Education Date

Dedication

My father instilled in me the restless desire to fulfill the higher dream.

My mother taught me integrity, honesty, and the importance of always doing the best.

To my parents whose lives were a lesson of courage, resilience, and hard work!

To my daughter, Natasha, who has brought meaning to my life that is beyond words.

You have made me the proudest mother!

To my husband Jim who has endowed me with love, the peace of mind, courage,

and unwavering support in my journey to accomplish this work.

To my loving grandchildren, Hunter and Ethan, may this work be an inspiration for your life endeavors and a testament that dreams can always come true. Please Dream Big!

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Abstract

This research has focused on the creation of the Freire-UDL Literacy-*Alfabetización* Model and its application to practice in the development of a *Teacher's Guide* to support educators in teaching literacy/*alfabetización* to nonliterate Spanish-speaking students with limited or interrupted formal education (SIFE/SLIFE) in 40 hours or less. A two-fold problem was the impetus to this study: The urgency to teach a significant number of nonliterate Spanish-speaking SIFE/SLIFE to read effectively through their home language (L1), Spanish; and the need to support Spanish bilingual middle and high school SIFE educators in teaching their nonliterate Spanish-speaking students how to read in a short amount of time. It has been shown that learning to read only happens once. Three research questions framed this study, which included three phases: (1) A comprehensive study of Freire's method of *Alfabetización* and *Conscientización*; (2) The creation of the Freire-UDL Literacy-*Alfabetización* Model; and (3) The development of the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* and its validation. The Freire-UDL Literacy-*Alfabetización* Model integrates Freire's pedagogy with the UDL Framework to maximize literacy learning opportunities for diverse nonliterate Spanish-speaking EL adolescents. Ten Massachusetts urban district Spanish bilingual SIFE teachers participated in validation of the model and the *Teacher's Guide*. In addition to reviewing the guide these teachers experienced literacy activities in *conscientización* (thinking) and *alfabetización* (literacy). Responses to the validation questionnaire indicated that teachers found the Freire-UDL Literacy-*Alfabetización* Model and *Teacher's Guide* to be clear and very helpful in its implementation. Recommendations for further research and practice are included.

Keywords: SIFE, Freire, UDL, ELs, bilingual reading, literacy or ELL, ESL TESOL, Bilingual, *Alfabetización*

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Acronyms

EL	English Learner
ELD	English Language Development
ELL	English Language Learner
ESSA	Every Student Succeeds Act
L1	First Language
L2	Second Language
MADESE	Massachusetts Department of Elementary and Secondary Education
NCLB	No Child Left Behind
NLP	National Literacy Panel
NRP	National Reading Panel
SIFE	Students with Interrupted Formal Education
SLIFE	Students with Limited or Formal Education
UDL	Universal Design for Learning
WIDA	World-class Instructional Design and Assessment

Chapter 1: Introduction

> Language-minority students who cannot read and write proficiently in English cannot participate fully in American schools, workplaces, or society. They face limited job opportunities and earning power. Nor are the consequences of low literacy attainment in English limited to individual impoverishment. U.S. economic competitiveness depends on workforce quality. Inadequate reading and writing proficiency in English relegates rapidly increasing language-minority populations to the sidelines, limiting the nation's potential for economic competitiveness, innovation, productivity growth, and quality of life. (August & Shanahan, 2006, p. 1)

The purpose of this study was to create a new literacy model and a teacher's guide to support educators in teaching nonliterate Spanish-speaking SIFE to read, in 30 to 40 hours.

English learners (ELs) are the fastest-growing school-age population in the United States. The estimated 4.2 million EL students, or 8.8% in the academic year 2003-2004, increased to 4.5 million students, or 9.3%, by 2013-2014 (Kena et al., 2016). As far back as 2006, Francis, Rivera, Lesaux, Kieffer, and Rivera pointed out that in the prior two decades the number of ELs had increased 169%, whereas the general student population had grown only 12% (2006); notably, 80% of ELs spoke Spanish (Goldenberg, 2008), a percentage that remains constant. In 2014-2015, Spanish was the home language for approximately 3.7 million, or 77.8%, of all EL students (McFarland et al., 2017). Among this large population are SIFE, students who are nonliterate in Spanish. Although the steady growth of ELs in K-12 public schools in the United States has gained much attention in the field of education, their educational needs have not been adequately addressed (Thomas & Collier, 2002). This problem is even more severe among the

fast-growing EL subpopulation of SIFE/SLIFE, students with limited or interrupted formal education (Advocates for Children of New York, 2010; DeCapua & Marshall, 2015; Ruiz-de-Velasco & Fix, 2000).

In my 35-year teaching career at the middle school level, I encountered students, most notably Spanish-speaking students, who were either nonliterate, or whose literacy skills were very low, in their first language. Because until recently schools were not prepared to use adequate educational frameworks, such as Universal Design for Learning (UDL), or even basic literacy programs in students' first language, I witnessed many SIFE/SLIFE fail their classes as well as state exams, repeat the school year, and rarely make progress academically, mirroring many of the same trajectories of students with interrupted formal education enrolled in the New York City schools (Advocates for Children of New York, 2010). At the end of middle school, I saw these students handed off to high school with only minimal literacy skills, echoing similar experiences to those that Watson (2010) so eloquently reported in her dissertation on high school students with limited formal education. She described a case among many she had been involved in, which required deciding whether one of the SIFE should graduate from high school although his skills remained very low:

> I recall with unyielding clarity the final meeting between me as ESL department head, the guidance counselor who usually determines graduation eligibility, and the very generous-hearted, student-centered principal, to decide whether this student would be allowed to graduate—this meeting stands in my memory as emblematic of the problem. At the end of the long exhaustive conversation (the last of many) in which all the issues involving state and school policies and instructional options remained intractable to resolution, the principal finally closed the matter, saying, "What can we really do for him here

> anymore?" The student was allowed to graduate, the family was appeased, his constant appeals to talk to "school authorities" ceased, the school didn't have to pay for him anymore, teachers didn't have to modify lessons anymore, and we didn't have to gerrymander his schedule anymore. This one was off our plate (pp. 116-117).

Unfortunately, I encountered scenarios like this one every year during my teaching career. In this case, Watson learned later that this high school student was unable to be admitted to a community college or even get a job at a paper box factory because he was unable to fill out the application.

I advance the idea, however, that these students can learn—but schools have failed to provide them with adequate literacy-learning educational support. Language of instruction in the school achievement of all ELs, specifically SIFE/SLIFE, is critical. Notwithstanding, language policy restrictions have been implemented throughout the United States that limit the amount of time permitted to teach ELs in their first language. Because SIFE/SLIFE are ELs, educational policies regarding ELs have the same implications for this subpopulation. Furthermore, it is important to point out that only recently have researchers identified and acknowledged SIFE/SLIFE as a subgroup of ELs (Porter, 2013), and often schools do not get data on immigrant students' prior schooling (Browder, 2014; DeCapua & Marshall, 2015). Therefore, also unknown is the exact number of SIFE/SLIFE that attend American schools (Browder, 2014; Porter, 2013) and, as a result, they often receive only the support allotted to ELs.

I pointed to the compelling and poignant example of Watson's (2010) case of a high school student with limited formal education because it not only took me back to the many similar disheartening cases I witnessed in my teaching career, but also brought to bear the urgency of developing an efficient literacy-learning approach that meets these students' needs. It

is important, however, to analyze some of the factors that have contributed to schools' failure to educate SIFE and, consequently, to identify promising educational approaches that will address their needs and enable them to succeed in the workplace and in life.

Problem Statement

This study addressed a two-fold problem, the urgency to teach a significant number of nonliterate SIFE/SLIFE to read effectively and the need to address middle and high school educators' lack of adequate preparation to teach Spanish-speaking nonliterate SIFE/SLIFE how to read through instruction in their native language (Ruiz-de-Velasco & Fix, 2000). Reading is language-based and it only happens once in life (M. L. Serpa, personal communication, January 25, 2017). Also, students transfer their reading proficiency skills from their native language (L1) to a new language (L2, in this case, English). This linguistic interdependence has been demonstrated through extensive research (Collier, 1989; Cummins, 1981, 1982; Goldenberg, 2008; Thomas & Collier, 1997).

Therefore, students' literacy skills in the native language are fundamental for their English literacy acquisition and school success (Bigelow & Tarone, 2004; Collier, 1989, 1995; Cummins, 1981, 2000, 2001; Freeman & Freeman, 2000; Garrison-Fletcher et al., 2008; Goldenberg, 2008; Klein & Martohardjono 2015; Menken, Kleyn, & Chae, 2012; Short & Fitzsimmons, 2007; Thomas & Collier, 2002). Nonliterate Spanish-speaking SIFE/SLIFE have not yet had the opportunity to learn how to read at all (DeCapua & Marshall, 2010a; DeCapua, Smathers, & Tang, 2007) and, given their very beginning level of English proficiency, if they are to achieve mature literacy skills, they must acquire the basic literacy skills in their native language. To address this problem, it is urgent that nonliterate Spanish-speaking SIFE/SLIFE learn to read through instruction in Spanish, their home and proficient language.

Goldenberg (2008) is one of many authors who assert that reading skills in the first language help students read in the second language. This author pointed out that reading skills also transfer across languages that even have different alphabetic systems. In addition, *alfabetización* in English is a more complex process than *alfabetización* in Spanish. Spanish is a "transparent language"; its alphabetic writing system has consistent grapheme-to-phoneme correspondences. On the other hand, English is an "opaque language" with a similar alphabet, but with a morphophonemic writing system that is complex: individual letters may represent more than one phoneme, and more than one letter may represent a single phoneme (Ijalba & Obler, 2015). Learning to read in English is already a complex process for native English speakers; it is a much harder challenge for students who are learning how to speak it.

Evidence shows that *alfabetização/alfabetización* (literacy) in Portuguese or Spanish, respectively, can be learned in 3 months or less (Brown, 1978), while it may take an average of 3 years in English. However, the evidence ((Ruiz-de-Velasco & Fix, 2000) also showed that middle and high school teachers had not yet been prepared to teach nonliterate Spanish-speaking SIFE/SLIFE how to read. Seeking to find out how many universities/colleges offered classes to prepare educators to teach Spanish reading, I searched Google Scholar and obtained zero results. In addition, there is no licensure requirement currently for educators who teach SIFE/SLIFE (Massachusetts Department of Elementary and Secondary Education, 2017).

Compounding the issue of the lack of teacher preparation in teaching middle and high school students to read, SIFE/SLIFE are at the highest risk of dropping out of school (Advocates for Children of New York, 2010; DeCapua et al., 2007; Fry, 2005; Klein & Martohardjono, 2015; Susso, 2016; Walsh, 1999). Notably, Spanish-speaking students account for 77.8% of all ELs and Hispanic students continue showing a higher school dropout rate than that of White and

Black students in the country (McFarland et al., 2017). In Massachusetts, Hispanic students had a dropout rate of 4.2. % in 2016-2017, accounting for 42% of all dropouts (Massachusetts Department of Elementary and Secondary Education, 2017).

This extraordinary rate of dropout among Hispanic high school students is a tragedy. Inappropriate literacy instruction may be one of the causes of these students' missed opportunity of having a productive life, a result of schools not having educated them. Spanish-speaking SIFE/SLIFE do not yet have basic literacy skills in Spanish, are not proficient in English, and "are expected to meet the same standards as the average native-born students regardless of how little time they have spent in the U.S." (Browder, 2014, p. 2). It is of paramount importance for schools to determine what can work for these students and their education. In addition, to meeting general academic-testing requirements, such as those of the Massachusetts Comprehensive Assessment system (MCAS), EL students are expected to show annual English language-development (ELD) progress—a double burden. Fry (2005) pointed out that arriving students who had experienced school difficulties prior to immigrating to the United States showed a 70% dropout rate, in comparison with an 8% rate for immigrant students without prior academic deficits. Walsh (1999) referred to these students as "the highest of high risk students," adding, "These students are overrepresented in dropout rates, non-promotions, special education referrals, and often disciplinary actions, the result of their high level of frustration" (p. 7). In the same vein, Advocates for Children of New York (2010) explained that due to SIFE/SLIFE's low literacy skills, these students have often been misplaced in special education programs, struggled academically for years without making progress, and finally dropped out.

It is imperative and ethically urgent to educate nonliterate SIFE/SLIFE in schools throughout the nation if we want to prepare them to have a job in today's high-technology world,

in which computers and tablets are commonly used to access the necessary information to complete work-related tasks. It is pressing to stop the large school dropout rate among this student population so they can eventually be part of the future workforce of this country. The devastating effects of not becoming literate—therefore not succeeding academically, and dropping out of school—are well documented in the literature (August & Shanahan, 2006; Darling-Hammond, 2010; Morse, 1997; Suárez-Orosco & Suárez-Orosco, 2009; Thomas & Collier, 1997). August and Shanahan (2006) also point out the serious consequences of not becoming literate in English and, therefore, not succeeding academically; they assert that low literacy not only leads to an impoverished life but also hinders the economic advancement of the country. This reality is of great concern to educators and U.S. policymakers, given that ELs will comprise the majority of the future workforce in the nation. Darling-Hammond (2010) highlights the devastating effects of failing to educate our youth. She points out that women who do not complete high school are more likely to receive welfare, while men who do not complete high school are more likely to be in prison, than their counterparts who graduate. "Most inmates are school dropouts, and more than half of the adult prison population is functionally illiterate—with literacy skills below those required by the labor market" (p. 24). Costs associated with these social services and incarcerations cost the nation $200 billion a year. It is, then, a priority to identify effective instructional strategies to meet nonliterate SIFE/SLIFE's basic academic needs, so these students can become successful in school and beyond.

Purpose of Study

This action research study focused on the creation of the Freire-UDL Literacy-*Alfabetización* Model and the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* to support Spanish bilingual educators in teaching nonliterate Spanish-speaking students with limited or

interrupted formal education (SIFE) how to read, in less than 3 months. The development of this new applied theoretical model was based on the study of Paulo Freire's method of *Alfabetización* and *Conscientización* (Brandão, 1981; Brown, 1978; Freire, 1967, 2015) and its integration with the UDL Framework (Hall, Meyer, & Rose, 2012; Meyer, Rose, & Gordon, 2014).

I was compelled to address the needs of this segment of the student population because I have dedicated 35 years of my life teaching Spanish-speaking children and learning from them. Their culture and language have been their most valuable legacy to me. Therefore, it was with a heavy heart that I witnessed many of these nonliterate students fail to be promoted, struggle in their classes, and in the end be pushed to the high school without having their needs met.

In Brazil, Paulo Freire taught adults how to read within 30 to 40 hours (Brown, 1978). By integrating the Universal Design for Learning (UDL) framework and the Freirean methodology, as illustrated in the Freire-UDL *Alfabetización*-Literacy Model, teachers will not only accelerate Spanish-speaking SIFE's process of learning to read, but also will make literacy learning even more accessible.

Theoretical Frameworks

This study merges two theoretical frameworks: Freire's literacy pedagogy and UDL. Freire's *alfabetización-conscientización* is a widely used approach to teaching reading in less than 3 months to nontraditional students in many countries around the world, with documented success among nonliterate populations. Creation of the Freire-UDL *Alfabetización*-Literacy Model was informed by Freire's critical literacy theory in the context of critical pedagogy, a complex, multidimensional approach that incorporates cultural, political, and social factors in addressing the needs of marginalized individuals. Refer to Chapter 5 for an in-depth account of this approach and its principles.

The UDL framework, developed in the 1990s based on emergent research in neuroscience, created a new approach to literacy learning education (Hall, Meyer, & Rose, 2012). It is grounded in three core principles: *Multiple Means of Engagement*, *Multiple Means of Representation*, and *Multiple Means of Action and Expression*. These principles reflect, respectively, the three brain networks responsible for learning: the affective network, the recognition network, and the strategic network (Lapinski, Gravel, & Rose, 2012; Meyer et al., 2014; Rose & Meyer, 2002). UDL stands in opposition to one-size-fits-all curricula that traditionally were developed to meet the needs of the mythical "average" student, without addressing learning differences and variability. With respect to the struggles of non-"average" students with traditional curricula based on the concept that students are homogeneous, neuroscientists concluded that, "the curriculum, rather than the learners, was the problem" (Edyburn, 2006; Meyer, Rose, & Gordon, 2014). See Chapter 3 for a detailed description of the UDL approach.

I posit that applying UDL's three core principles to Freire's pedagogy of *alfabetización* and *conscientización* creates a new, more accessible literacy model for teaching nonliterate Spanish-speaking SIFE/SLIFE to read. The new Freire-UDL Literacy-*Alfabetización* Model and the associated *Teacher's Guide* document this innovative approach.

Research Questions

The research questions that guided this study, with a focus on creating an effective literacy model and a teacher's guide that facilitates its implementation with nonliterate Spanish-speaking SIFE/SLIFE, are as follows:

1. *What were the key concepts and principles of Paulo Freire's Pedagogy of* Alfabetización *and* Conscientización *that informed the researcher in the creation of*

*the new Freire-UDL Literacy-*Alfabetización *Model for nonliterate Spanish-speaking SIFE/SLIFE?*

2. *What were the necessary procedural steps to integrate UDL with Paulo Freire's method/pedagogy of* Alfabetización *to create a new Freire-UDL Literacy-*Alfabetización *Model™ for practical use with nonliterate Spanish-speaking SIFE/SLIFE?*
3. *How to create and validate the* Freire-UDL Literacy-*Alfabetización* Teacher's Guide *that applies the Freire-UDL Literacy-*Alfabetización *Model* ™?

Study Design

This action research study was designed to create and validate the Freire-UDL Literacy-*Alfabetización* Model and its application to the *Freire-UDL Literacy-*Alfabetización *Teacher's Guide,* to support middle and high school educators in teaching *alfabetización* (literacy learning) to nonliterate Spanish-speaking SIFE. Action research is a type of qualitative study that aims to bring change, particularly in education, by changing teaching and learning methods in order to solve a problem (Taylor, Wilkie, & Baser, 2006).

This research work was carried out in three phases:

Phase one. Foundational Inquiry and Creation of the Freire-UDL Literacy Model

Foundational Inquiry. To enable the development of the Spanish Freire-UDL Literacy Model, the researcher selected, reviewed, and studied the relevant literature and support materials to become well versed on Freire's pedagogy of literacy/*alfabetización*. The researcher also reviewed relevant literature, including UDL.

Exploration and Integration. The researcher explored how to integrate Freire's pedagogy of *alfabetización* and *conscientización* and the UDL framework to create the Spanish

Freire-UDL Literacy-*Alfabetización* Model. The integration of these two educational approaches is the conceptual foundation of this new literacy model (see Figure 8).

***Creation*.** The creation the Freire-UDL Literacy-*Alfabetización* Model is a foundational blueprint to the development of the *Teacher's Guide* to explicitly provide Spanish bilingual teachers the necessary guidance and resources to implement this innovative approach to literacy learning through Spanish instruction with nonliterate Spanish-speaking SIFE.

Phase two. Creation of the Freire-UDL Teacher's Guide Steps

Phase two in this process focused on the creation of the *Freire-UDL*-Alfabetización *Teacher's Guide*, which connected theory with practice. The *Teacher's Guide* is the practical application of the Freire-UDL Literacy-*Alfabetización* Model for educators to use in teaching nonliterate Spanish-speaking SIFE to learn to read through Spanish instruction in less than four months.

The Spanish *Freire-UDL Teacher's Guide* is very explicit in providing Spanish bilingual teachers the necessary guidance and resources to implement this innovative approach to literacy learning through Spanish instruction with nonliterate SIFE. The creation of the Freire-UDL Literacy-*Alfabetización* Model was foundational to this process because it provided a blueprint that informed practice in the preparation and creation of the *Teacher's Guide*.

Phase three. Validation of the *Teacher's Guide*

Phase three focused on the initial validation of the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* and consisted of six steps.

SIFE Teacher Reviewers. Ten volunteer Spanish bilingual SIFE teachers were selected to participate in a validation workshop of the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* to be held at a public-school site. Two outside reviewers also participated in this work.

Research Tools: Letter of Consent and the Freire-UDL-*Alfabetización *Teacher's Guide Validation. Tools were created. See Appendices D and E, respectively, for the Letter of Consent and the Freire-UDL Validation Questionnaire.

Workshop Preparation. Workshop content and sample literacy materials were created.

Workshop Session. Delivery of the validation workshop was carried out by this researcher, who introduced the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* (Pilot Version) and the Freire-UDL Literacy-*Alfabetización* Model to bilingual Spanish SIFE teachers (potential users), to learn from potential users and gain their feedback. Teachers reviewed the guide in sections and experienced the process of *alfabetización* and *conscientización* during a sample lesson. A copy of the final guide was provided to each Spanish bilingual teacher.

Data Collection. The Freire-UDL Literacy-*Alfabetización* Validation Questionnaire (See Appendix E) was administered to the teachers who participated in the workshop.

Data Analysis. Analysis of the Freire-UDL Literacy-*Alfabetización* Validation data was conducted, and the suggested changes to the guide were made based on suggestions from the participating teachers and the two outside reviewers.

The three phases in this action research study were fundamental to creation of the Freire-UDL-*Alfabetización* Model and *Teacher's Guide,* which were designed to help teachers in middle schools and high schools address illiteracy among nonliterate Spanish-speaking SIFE.

Significance of this Study

This study has scholarly, pedagogical, policy, and social justice implications. While it adds to the body of research on SIFE (Browder, 2014; DeCapua & Marshall, 2010a; DeCapua et al., 2007; Freeman, Freeman, & Mercuri, 2001; Klein & Martohardjono, 2006; Klein & Martohardjono, 2015; Medina, 2009; Porter, 2013), it is the first study that addresses Spanish-

speaking SIFE who have not yet had the opportunity to learn how to read in their native language. Prior research studies on SIFE/SLIFE have focused on identifying instructional practices that address the academic needs of students who, although having low literacy skills, can read.

This study has pedagogical implications in that it creates a new literacy model that middle and high school educators can use to significantly curtail the time required to teach nonliterate Spanish-speaking SIFE/SLIFE how to read. Through use of the model for instruction in Spanish, SIFE/SLIFE can achieve literacy in 30 to 40 hours, as opposed to the several years required using traditional teaching methods in English. While Spanish-speaking SIFE/SLIFE may be placed in programs that provide academic support in these students' native language, middle and high school teachers typically are not prepared to teach reading (Ruiz-de-Velasco & Fix, 2000). This research provides a tool for professional development in this area.

This study has social justice implications because it is grounded in the Freirean pedagogy of emancipatory literacy, which replaces the traditional, hierarchy-based instructional model with an egalitarian partnership model of co-created learning. Freire advocates that students learn to read the world before they learn to read the word (Freire & Macedo, 1987). In other words, as with Freire's participants, when students are led to analyze their social context and life realities, they will become aware of future possibilities and, therefore, become empowered to change their situations. They will gain confidence that they, too, have the right to transform their life situation into a better one. This research underlines the urgency of the Freirean project. In today's world, literacy is essential both for employability and for empowered participation in routines of daily life.

Definition of Terms

The following terms are used throughout these chapters.

Alfabetización, Acción y efecto de alfabetizar. Teaching to read and write so that each student uses the written "word to read the world," in order that she or he may to continue to learn and grow.

Conscientización. The process of developing a critical awareness of one's social reality through reflection and action. Action is fundamental because it is the process of changing reality. Freire wrote that because the social myths we all acquire are located within a paradigm of dominance/oppression, learning is a critical process that depends upon uncovering real problems and actual needs. See http://www.freire.org/component/easytagcloud/118-module/conscientization/.

EL. English learners. The acronym has been recently shortened from ELL (English language learner) (Browder, 2014). ELs are students who do not speak English or whose native language is not English and are not able to complete the required work in a typical classroom in English (Massachusetts Department of Elementary and Secondary Education, 2017).

L1. A person's first language or home language (Browder, 2014). In this study ELs' first language is Spanish.

L2. A person's second-learned language. In this study, ELs' second language is English.

Nonliterate. Individuals who have not yet had access to reading instruction (Burt, Peyton, & Adams, 2003).

SIFE/SLIFE. Students with interrupted formal education/students with limited or interrupted formal education. According to the Massachusetts Department of Elementary and Secondary Education (2017, p. 6), the legal definition of SLIFE is as follows:

A student should be identified as SLIFE if **all** of the following criteria are met:

1. The student is an English language learner as defined in G.L. c. 71A, §2(d).
2. Is aged 8 to 21 years.
3. Entered a United States school after grade 2 **or** Exited the United States for six months or more.
4. Prior exposure to formal schooling is characterized by no formal schooling, **or** interruptions in formal schooling, defined as:
    a. at least two or fewer years of schooling than their typical peers, **or**
    b. consistent, but limited, formal schooling.
5. Functions two or more years below expected grade level in native language literacy relative to typical peers.
6. Functions two or more years below expected grade level in numeracy relative to typical peers.

Universal Design for Learning (UDL). An educational framework based on neuroscience research. Its essence is to offer curriculum and instruction that is accessible to all students from the outset by anticipating and removing barriers to learning (Meyer et al., 2014). A video that explains Universal Design for Learning is available at http://castpublishing.org/books-media/udl-theory-and-practice/

Limitations of the Study

A first limitation of this study is that the new literacy program whose development is reported here is geared only to Spanish-speaking SIFE/SLIFE; the model does not meet the needs of SIFE/SLIFE who speak languages other than Spanish**.** Second, the new SIFE/SLIFE literacy model addresses mainly the needs of Spanish-speaking SIFE/SLIFE who have not yet

had the opportunity to learn how to read, not students who, despite having gaps in their formal education, can read. Third, the model has been validated in only one session with Massachusetts Spanish bilingual educators. Finally, there are some limitations in the implementation of this model if teachers do not provide sufficient opportunities for students to develop *conscientización* within the process of *alfabetización*; furthermore, it is imperative that educators implement Universal Design for Learning in their lessons. To assist teachers with the fidelity of implementation of the model, I recommend the use of the fidelity checklist provided as a resource for teachers in the *Teacher's Guide*.

The Researcher's Role

In my 35 years as a middle school teacher, I taught English to Spanish-speaking students, first as an ESL teacher, and later as an English language arts teacher. At this school, 80% of the student population was Hispanic, with origins in various countries in Latin America. I taught students from the Dominican Republic, Puerto Rico, Mexico, Colombia, El Salvador, Honduras, Guatemala and, in recent years, a student from Spain joined this diverse group. To only say that I taught these students doesn't do justice to my experience for I also learned much from them. They taught me about their cultures, values, and ways of looking at the world. They shared with me their experiences in the old and new countries. During the time I was an ESL teacher, I found that my students related to me because, like them, I too had immigrated to the United States and, therefore, understood their struggles inside and outside school. I knew what vocabulary was most important for them to learn in order to navigate their new world. I knew that, like me, they would soon be their parents' voices, for typically they were the only ones in their family learning the new language. During the time I was an ELA teacher, my students related to me because, if they had just exited the Structured English Immersion (SEI) program, they felt safe knowing that this

teacher could speak Spanish to them if they needed explanation or clarification in their first language. Spanish-speaking students who were born in the United States, or had lived in the country for most of their lives, were always pleasantly surprised, when they were assigned to my class, to find out that I could speak the language they had learned at home. Countless times my students chose to speak to me in Spanish, showing their monolingual peers how proud they were of their language and cultures. They were also aware that I could call their homes and communicate with their families if it were necessary.

It was, therefore, disheartening for me to witness how many Spanish-speaking students came to our school without literacy skills in their native language; and to observe that, they were being assigned to ESL classes in which their needs were not being met. Later, after learning basic oral English skills, these students were placed in general education classes where they struggled, and often failed to be promoted. One student, who spoke English fluently, and showed excellent comprehension when texts were read aloud and discussed in class, stands out in memory. This student had very low literacy skills, and therefore could not complete writing assignments. Due to his good conduct and great effort, he was promoted to the high school at the end of the school year without adequate literacy skills. This student's experience, and the experiences of the many other such students whose struggles, I knew, were preventable or remediable, compelled me to create a literacy model for nonliterate Spanish-speaking students that would help educators teach SIFE/SLIFE how to read in 30 to 40 hours.

Summary

In this chapter, I introduced the focus of this dissertation, the *alfabetización* needs of Spanish-speaking students with limited or interrupted formal education (SIFE/SLIFE). I gave a brief overview of SIFE's educational trajectories in U.S. schools. I stated the purpose of the

study, which included the creation of the new Spanish Freire-UDL Literacy-*Alfabetización* Model and *Teacher's Guide* to support Spanish bilingual educators to teach nonliterate Spanish-speaking SIFE/SLIFE how to read through Spanish instruction in 30 to 40 hours. Additionally, I introduced the concept of integrating the two theoretical frameworks, UDL and the Freire's *Alfabetización-Conscientización*, which informed the creation of the new Spanish Literacy-*Alfabetización* Model and *Teacher's Guide*. I stated the three research questions that guided the study as well as the necessary phases to carry out the research work. Last, I showed the significance of the study by pointing out its scholarly, pedagogical, policy, and social justice implications. This chapter ended with reference to some of the study's limitations.

Chapter 2: Literature Review, SIFE/SLIFE

The purpose of this literature review is to lay the theoretical background and foundation for this study, specifically related to understanding the student population that is the focus of this work. The chapter also gives an overview of existing research on SIFE/SLIFE and their place in our schools. Because SIFE/SLIFE are a subpopulation of ELs, some of the educational issues pertaining to ELs also impact SIFE/SLIFE's educational trajectories and, therefore, are presented in this chapter. I will discuss some of the factors that have contributed to the school failure of SIFE/SLIFE within the ELs' educational context in the U.S. and also some promising approaches that will foster their school success. Although I have reviewed an extensive bibliography for this dissertation, in the interest of focus, I only present findings most significant to my study.

SIFE/SLIFE in U.S. Schools

As early as 1993, it was estimated that within the EL population, 20% of students in high school, and 12% in middle school, had missed two or more years of schooling, and that their educational needs were not being met in ESL or bilingual classrooms (Freeman et al., 2001; Ruiz-de-Velasco & Fix, 2000). For example, Walsh (1999) reports that according to school officials in Boston, it was estimated that there were between 40% and 75% of high school students with limited formal schooling who arrived from rural or war-afflicted areas in Africa, Asia, the Caribbean, and Latin America. Medina (2009) wrote in a *New York Times* article that 29% of all students entering the New York Public Schools lacked formal education and faced the daunting challenge of catching up academically. The author stated that educators and experts on these students' needs advance that "teenagers who arrive unable to read in any language face tremendous pressure to earn an independent living while racing to catch up on more than a

decade of academic building blocks" (p. A1). The state of New York was the first to initiate the process of identifying and educating these students (Porter, 2013). In 2005-2006, according to the New York City Department of Education, as cited in DeCapua et al. (2007), there were approximately 18,900 SIFE/SLIFE among the more than 141,000 ELs attending New York Public Schools. This reality is of great concern, given that the number of ELs has increased dramatically in schools throughout the United States compared to the rest of the general school population (Browder, 2014; Francis et al., 2006; Goldenberg, 2008; Porter, 2013) and, consequently, there has been an increase in SIFE, a subpopulation of ELs.

The academic backgrounds of SIFE vary significantly. While some of these students have attended schools in their countries but had their formal education interrupted due to war, migration, lack of resources, and other circumstances others have never had the opportunity to participate in school before they came to the United States, and some of them are not yet literate in their native languages (DeCapua & Marshall, 2010a; DeCapua et al., 2007). For this reason, DeCapua and Marshall (2010a) added "limited" to the term SIFE, an acronym originally coined by the NYC Public Schools (Porter, 2013) creating the new term, SLIFE (Students with Limited or Interrupted Formal Education). For the purpose of this dissertation, the terms SIFE and SLIFE are used interchangeably.

SIFE ELs have greater academic needs for intensive and appropriate interventions than their non-SIFE EL counterparts. According to No Child Left Behind[1] (No Child Left Behind Act,

[1] President George W. Bush signed the NCLB Act of 2001 into law in 2002. Its objective was that all students receive equal standards-based educational opportunities. Schools were held

CLB, 2001) and Every Students Succeeds Act[2] (Every Student Succeeds Act, ESSA, 2015), schools expect all students to become proficient in English and to develop and achieve gradelevel standards in all academic areas, including critical thinking skills. But many SIFE first need to acquire basic skills in literacy and math (DeCapua et al., 2007; Ruiz-de-Velasco & Fix, 2000). In other words, "[they] are expected to meet the same standards as the average native-born student regardless of how little time they have spent in the U.S." (Browder, 2014, p. 2). Although research shows that schools have been working on identifying educational strategies to meet these students' needs, many SIFE/SLIFE are misplaced in special education programs (Advocates for Children of New York, 2010; Susso, 2016). Others end up in general monolingual English education classes and, because of their low literacy skills and English language barriers, are not given the opportunity to catch up, often failing and dropping out of school. It is urgent and imperative that schools be ready to meet these students where they are.

A small body of researchers has focused on the education of SIFE and recommended instructional models to meet these students' academic needs (DeCapua, & Marshall, 2010a;

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accountable by reporting all students' scores by subgroups on standardized testing. Schools received sanctions if they did not bring students to a proficient level on these state tests.

[2] President Barack Obama signed the ESSA Act into law in 2015, which replaced the NCLB. ESSA kept some of the same aspects as NCLB, such as testing students in reading and math every year from third to eighth grade and reporting their scores by subgroups. However, in addition to student test scores, states may evaluate schools using another measure, such as school safety or access to advanced course work. Student performance is still the most important measure.

DeCapua et al., 2007; Freeman & Freeman, 2002; Klein & Martohardjono, 2006, 2009, 2015; Porter, 2013; Tarone, Bigelow, & Hansen, 2009; Tarone, 2010; Zehr, 2009). Most of these studies address the needs of SIFE who, although having low literacy skills in their native languages, can still read print. However, in reviewing the literature, I found that there is a lack of research on pedagogical methods to teach SIFE who have never had the opportunity of learning how to read in their first languages. It is, therefore, urgent to identify effective and efficient research-based instructional practices that educators can use to teach this group of students to read in their first language so they can more easily acquire English literacy and achieve academically. For example, three studies (DeCapua & Marshall, 2010a, 2010b; Freeman & Freeman, 2002; Porter, 2013) have focused on identifying best instructional practices to assist SIFE in developing literacy and critical thinking. They have stressed the importance of creating culturally responsive classrooms, in which students collaborate by working in groups, drawing on SIFE's backgrounds and experiences to inform new teaching, and developing a meaningful curriculum that focuses on culturally relevant themes.

In *Closing the Achievement Gap: How to Reach Limited-Formal-Schooling and Long-Term English Learners*, Freeman and Freeman (2002) reviewed the research on best practices, classroom environment and routines, and adequate materials that educators should use to meet SIFE's academic needs. They identify four essential keys in the education of these students:

> Engage students in challenging, theme-based curriculum to develop academic concepts.
>
> Draw on students' background—their experiences, cultures, and languages.
>
> Organize collaborative activities and scaffold instruction to build students' academic English proficiency.
>
> Create confident students who value school and value themselves as learners. (p. 16)

In the same vein, DeCapua and Marshall (2010a, 2010b) developed The Mutually Adaptive Learning Paradigm (MALP), an instructional model that brings together aspects of the SLIFE learning paradigm and aspects of the predominant U.S. formal educational paradigm. The authors explain the difference between learning in Western-style schooling, such as the United States, and learning in other parts of the world's educational contexts. In the United States, the emphasis is on critical thinking and literacy, as well as developing abstract and scientific ways of thinking; in contrast, SIFE typically have experienced a pragmatic learning style, which values learning that is beneficial and relevant to their daily lives. DeCapua and Marshall (2010a) also stress the importance of cultural impacts on learning by pointing out that, while the U.S. individualistic culture promotes individual achievement, SLIFE generally come from collectivistic cultures, which promote group relationships and responsibilities. The authors advance that the three components of MALP (see Figure 1, next page) create a classroom setting that helps educators to introduce and transition SIFE/SLIFE to the U.S. educational system.

DeCapua and Marshall (2010a) conducted a 5-month qualitative study in one high-school class with 16 students whose ages ranged from 15 to 20. They set out to investigate whether the implementation of MALP would assist SIFE/SLIFE in the development of literacy and academic thinking, as well as in their engagement and participation. The authors concluded that the three components of MALP—accept conditions for learning, combine processes for learning, and focus on academic tasks with familiar language and content—increased students' growth in literacy skills, academic ways of thinking, and motivation and participation. While these studies (DeCapua & Marshall, 2010a, 2010b; Freeman & Freeman, 2002) bring forth invaluable recommendations in supporting SIFE's school education in the United States, they do not address the needs of those students who have not yet learned how to read.

Building on instructional practices recommended in the above studies (DeCapua & Marshall's, 2010a, 2010b; Freeman and Freeman, 2002), Porter's (2013) dissertation examined how the process of having high-school SIFE craft their biographical digital stories would

Components of MALP	Learning Paradigm: SLIFE		Learning Paradigm: U.S. Schools
Accept conditions from SLIFE	Immediate relevance Interconnectedness		Future relevance Independence
Combine processes from SLIFE and U.S. schools	Shared responsibility Oral transmission	with with	Individual accountability Written word
Focus on U.S. learning activities with familiar language and content	Pragmatic tasks		Academic tasks

Figure 1. The Mutually Adaptive Learning Paradigm (MALP)
This is the visual representation of an instructional model that brings together aspects of the SLIFE learning paradigm and aspects of the U.S. formal educational paradigm (DeCapua & Marshall, 2010a).

promote the type of instruction that capitalizes on their strengths by incorporating the knowledge and experience that they bring into their learning. She advances that rather than looking at SIFE's native languages and cultures as a deficiency, it is critical to value the experiences and knowledge that they bring to our schools. Porter (2013) conducted a 5-month ethnographic study with 7 high school SIFE out of 18 ELs who together attended a culturally responsive ESL/SEI level III class. While students created storyboards, wrote scripts, and synthesized scripts and visuals using iMovie, they combined different forms of orality with non-print literacy in group discussion, oral storytelling, and visuals. In the process, they also incorporated both technological and print literacy. The author reports that the ESL teacher in this class promoted

different types of literacy, bridging orality with print literacy, an important aspect of MALP (DeCapua & Marshall, 2010a, 2010b). This research supports the understanding that most SIFE come from cultures in which knowledge is transferred orally, rather than through print. Therefore, using orality at first in the instruction of SIFE, and gradually incorporating written text in their learning, is critical. In addition, the ESL teacher in this classroom used SIFE's prior knowledge to inform her instruction and promote collaboration among students, another important aspect consistent with the MALP model. This is also an essential practice that Freeman and Freeman (2002) advance in their instructional recommendations for SIFE.

Porter (2013) found that the SIFE she studied created compelling digital stories about their lives and experiences in the United States by drawing upon their prior knowledge. This culturally responsive classroom promoted SIFE's ways of learning and thinking at the same time that it facilitated their transition to the U.S. educational system. This approach helps to confirm that MALP is a successful instructional model in SIFE's school achievement. However, it is important to note that although the participants in Porter's study had low literacy skills, they could read print. Although these findings are invaluable in supporting educators endeavoring to teach SIFE/SLIFE, they do not focus on teaching nonliterate SIFE how to read for the first time. It is, therefore, imperative to identify effective methods that educators can use to meet the needs of nonliterate SIFE.

An early study (Klein & Martohardjono, 2006) conducted with 12 Spanish-speaking SIFE reinforces this argument. The authors identified two subgroups within SIFE: students with strong basic literacy skills and students with weak basic literacy skills. Participants were ninth-graders from two different New York high schools, who were entering school in the United States for the first time. The authors developed an oral interview questionnaire, a classroom

observation checklist, and selected assessment tests, including pre-literacy tests, which are administered to young children who are learning to read, as well as content knowledge assessments. One of the assessments was the Batería III Woodcock-Munoz Tests of Achievement (Spanish), which evaluated academic language, literacy skills, and content knowledge. In their analysis of the scores, Klein and Martohardjono found that although all students showed a normal development of natural language skills, their academic language skills in Spanish indicated large gaps in basic knowledge skills required for grade-level equivalency. Notably, the authors divided their participants into two groups: weak basic readers and strong basic readers. The weak readers just scored above or below second-grade level in oral expression, listening comprehension, sound awareness, and reading comprehension. Conversely, the strong basic readers could read words quickly and comprehend connected text, and close to grade level on spelling of sounds, although they scored low (around fourth-grade level) on reading comprehension of long texts, academic vocabulary, and reasoning skills.

Therefore, the authors recommended that criteria for the identification of SIFE should be based on skills and knowledge assessments such as those used in their study rather than on individual students' self-report on their prior schooling. They also advocated that SIFE should be put into two sub-groups according to their basic literacy scores: Spanish L1 with low basic reading scores, and Spanish L1 with strong basic reading scores. The instructional goals for each group should address their identified language, literacy, and academic needs. However, according to these researchers, the weak basic readers require, "basic phonics instruction, along with word attack skills, and fundamental academic listening, reading and writing development" (p. 27). While the strong basic readers also require a well-planned literacy program, the authors recommend that teachers use these students' basic literacy scores to plan instruction that

improves their existing oral, reading, and writing skills. I argue that the instructional practices identified in these research studies (DeCapua & Marshall, 2010a, 2010b; Freeman & Freeman, 2002; Porter, 2013) would be more relevant to meeting the needs of the SIFE subgroup that shows stronger basic reading skills in Klein and Martohardjono's (2006) study. On the other hand, nonliterate SIFE would benefit more from a basic literacy program in L1, in which they could begin by learning how to read.

Based on their study, Klein and Martohardjono (2006) also concluded that although some of the students did not have interrupted schooling, they had large gaps in their academic skills due to very poor schooling quality. Hence, they posited that there might be SIFE who, despite having interrupted schooling, do not require a SIFE program. This finding has been confirmed in a recent dissertation study (Browder, 2014).

Browder's (2014) study was based on school system data and student survey results from 165 high school ELs. Browder examined educational resilience among high-school SIFE. Students were classified as SIFE if they had two of three indicators on their arrival in the school system: (1) gaps in years of schooling relative to grade; (2) low self-reported schooling in the first language, and (3) beginner-level English proficiency. The author used quantitative analysis to determine the relationship between each limited-formal-schooling indicator and educational outcomes, defined as English proficiency attainment and scores on standardized tests. Results indicated that SIFE's risk for academic failure is greater than that of other ELs. Similarly to Thomas and Collier's (2002) study, SIFE in Browder's study showed slower English acquisition when compared with other ELs; as a result, Browder (2014) points out that SIFE risk being classified as ELs for longer, eventually becoming long-term ELs (Menken & Klein, 2009; Porter, 2013). In addition, confirming many research studies (Bigelow & Tarone, 2004; Collier, 1989,

1995; Cummins, 1981, 2000, 2001; Garrison-Fletcher et al., 2008; Freeman & Freeman, 2000; Goldenberg, 2008; Klein & Martohardjono 2015; Menken, Kleyn, & Chae, 2012; Short & Fitzsimmons, 2007; Thomas & Collier, 2002), Browder also found that SIFE's low L1 literacy, rather than missing years of schooling, was associated with slower English acquisition.

Browder (2014) advances that, "This study and others provide evidence against the validity of a construct of LFS [limited formal schooling] that confounds schooling and education" (p. 181). The author affirms that it is unsound to conclude that students with gaps in schooling will consequently have low L1 literacy, and vice-versa. Therefore, he argues that using school gaps as the only qualifier to identify SIFE will leave students with low L1 literacy without adequate educational support. He concludes that lack of content knowledge, academic skills, and low L1 literacy are the causes for SIFE's low academic achievement, not lack of time spent in school. Similarly to Klein and Martohardjono's (2006) recommendations, Browder (2014) points to the need for appropriate assessment for all arriving ELs, rather than relying on students' self-report of their prior schooling, in order to provide them with an adequate educational program.

In recent dissertations (Browder, 2014; Porter, 2013) and other studies (Bigelow & Tarone, 2004; DeCapua & Marshall, 2010a, 2010b; DeCapua et al., 2007; Freeman & Freeman, 2002; Tarone, 2010), the authors have emphasized the lack of research on SIFE. However, studies on nonliterate SIFE are even scarcer. It is imperative and ethically urgent to educate nonliterate SIFE in schools throughout the nation if we want to stop the alarming school-dropout rate among this student population, and prevent them from becoming long-term ELs. These students must succeed in school to eventually be part of the future workforce of this country. Notwithstanding, factors such as language of instruction have hindered the steep progress that these students need to make in order to catch up with their English-speaking peers.

Language of Instruction

The language of instruction used in the education of ELs has been a contentious issue in the debate over language policy throughout many years. Since the 1980s, the central debate regarding the best approach to educating EL students has focused on how much native language should be provided in the instruction of these students (August & Hakuta, 1998; Brisk, 2005; Crawford, 2000; Thompson, DiCerbo, Mahoney & MacSwan, 2002; Wiley, Lee & Rumberger, 2009). Proponents of bilingual education advocate for models that foster instruction in the native language, whereas opponents support models that provide English-only instruction (Brisk, 2005; Hakuta & Garcia, 1989). Hence, the discussion over ELs' instruction has focused mostly on two methods, bilingual education or English immersion (Porter, 2013).

Models of bilingual education vary according to their linguistic goals: promoting proficiency in two languages (bilingualism and biliteracy); or supporting monolingualism (proficiency only in one language, English) (Brisk, 2005; Del Valle, 2003; Fillmore, 1991; Menken & Klein, 2010). Scholars label programs that foster bilingualism by maintaining students' first language while developing a second language "additive schooling for bilingual students" (Brisk, 2005; Crawford, 1999; Cummins, 2000; Menken & Kleyn, 2010). These programs include maintenance and two-way bilingual programs. Conversely, "subtractive schooling" defines programs that foster the acquisition of the second language at the expense of the first language (Brisk, 2005; Crawford, 1999; Cummins, 2000; Fillmore, 1991; Menken &

Kleyn, 2010; Valenzuela, 1999)[3]. These programs include transitional bilingual and English immersion programs (see Tables 1, 2 and 3).

Table 1

*Additive Forms of Bilingual Educatio*n

Type of Program	Students	Characteristics	Program Goal	Grade Level Achievement Outcome
Maintenance	ELL students from same language background	Students receive instruction in L1 and L2 Minimum of 6 years	Bilingualism and biliteracy. ELL Students achieve academic proficiency in English and native language	YES
Two-way Bilingual Dual Language Two-way Immersion[4]	ELL students plus native speakers of English	Students receive instruction in L1 and L2. One-way and Two-way Dual Language Education (See Collier and Thomas, 2004)	Bilingualism & Biliteracy Both groups of students achieve academic proficiency in English and native language at grade level and above	YES

Note. Adapted from Serpa and Lira (2012, 2016), and Campanario-Araica, McCabe, Orozco, and Rinaldi (2015), Lesley University Graduate School of Education.

[3] The researchers in the citation Brisk, 2005; Crawford, 1999; Cummins, 2000; Fillmore, 1991; Menken & Kleyn, 2010; Valenzuela, 1999) are the pioneers of the studies on Language Learning Education.

[4] Two-way Bilingual, Dual Language, and Two-way Immersion are used interchangeably to refer to the same Language Learning Education model.

Table 2

Subtractive Forms of Bilingual Education

Type of Program	Students	Characteristics	Program Goal	Grade Level Achievement Outcome
Transitional Bilingual Education	ELL students from the same language background	Students receive instruction in L1 and instruction in L2; L1 instruction decreases as students learn English	Monolingualism in English Students transition to English-only instruction	YES

Note. Adapted from Serpa and Lira (2012, 2016), and Campanario-Araica, McCabe, Orozco, and Rinaldi (2015).

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Table 3

Other Subtractive Forms of Language Learning Education in Massachusetts

Type of Program	Students	Characteristics	Program Goal	Grade Level Achievement Outcome
Sheltered English Immersion	ELL students from the same language background in a classroom	Students receive content instruction in L2 that is modified to match their level of English proficiency	Monolingualism in English Students' academic achievement and proficiency in English	NO
	ELL students from different language and cultural backgrounds	Students receive content instruction in L2 that is modified to match their level of English proficiency	Monolingualism in English Students' academic achievement and proficiency. *Note*: This type of program does not produce grade level academic achievement for most students. See English Language Learners Subcommittee (2009)	NO

Note. L1= First Language; L2= Second Language; ELL = English Language Learners.

Note. Adapted from Serpa and Lira (2012, 2016), and Campanario-Araica, McCabe, Orozco, and Rinaldi (2015).

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Although the benefits of additive forms of bilingual education in ELs' school achievement are well documented (August & Hakuta, 1998; Baker, 2006; Brisk, 2005; Crawford, 1999; Cummins, 2000; Thomas & Collier, 1997), the political climate reflecting anti-immigration sentiments that has plagued the United States since the 1990s has influenced the restriction of native language usage in bilingual classrooms.

In 1981, the late Senator S. I. Hayakawa (D-Ca) proposed an English Language Amendment to the U.S. Constitution. Although his proposal failed, it gave rise to the English Only Movement endorsed by U.S. English and English First organizations (Baker, 2006). U.S. English was founded in 1983 by Senator Hayakawa and Dr. John Tanton, the founder of the Federation for American Immigration Reform (FAIR), which demands more severe restrictions on immigration and stricter control of the nation's borders (Crawford, 1999). In 1987, English First, a more aggressive group, joined U.S. English "in lobbying for the total supremacy of English in education, voting and administration" (Baker, 2006, p. 394). The English Only Movement argues that in the United States, a society of immigrants, it is necessary to have a policy proclaiming English as the official language of the country to avoid divisions among non-English language groups (Padilla et al., 1991). The English Only Movement advocates the belief that an official language promotes unity, whereas bilingualism divides the nation (Baker, 2006; Crawford, 1999). In the eyes of many Anglo-Americans, recent immigrants (especially Latinos) are misperceived as not being willing to learn English, and therefore settling in isolated communities where they can lead their lives without learning the language (Crawford, 1999). For English Only supporters, bilingual education is the antithesis of unity and integration; rather, they contend that it promotes national disunity and disintegration (Baker, 2006). According to Crawford (1999), "The English Only lobby succeeded where earlier critics of bilingual education

failed. By making "assimilation" the paramount policy concern, it redefined the terms of the debate, calling into question even the transitional use of native-language instruction" (pp. 63-64). Under the influence of this monolingualist campaign, the goal in the education of ELs shifted from one of attaining school success by using a mix of languages in the classroom to one of learning English as quickly as possible without native language instruction (Crawford, 1999). As a result, Proposition 227 (the English in Public Schools Initiative) passed in California in June 1998, determining that language-minority students should be taught primarily in English and limiting instruction in students' first language. Bilingual education was severely restricted (Crawford, 1999; Cummins, 2001; Kilty & de Haymes, 2000; Moll & Ruiz, 2002; Ovando, 2003).

In the same vein, Ron Unz, a businessman from Silicon Valley and a board member of the Center for Educational Opportunity (CEO) in Washington, D.C. organized a statewide ballot question mandating that "all children…be taught English by being taught in English" (as cited in Crawford, 1999, p. 243). Unz argued for and funded similar initiatives in the states of Arizona and Massachusetts. In November 2000, Proposition 203 (English for the Children) passed in Arizona, also limiting the amount of time used to teach linguistic minority children in their first language (Cummins, 2001). Likewise, in November 2002, Massachusetts approved Referendum Question 2 (Massachusetts English Language Education in Public Schools Initiative), which mandated the end of Transitional Bilingual Education (TBE) (Cummins, 2001; Ovando, 2003). Under the new Massachusetts educational policy, Sheltered English Immersion programs (SEI) replaced Transitional Bilingual Programs, in which students had acquired knowledge in their first language. In the new immersion programs, academic content is taught through "the use of simple English in the classroom to impact academic content; teachers use students' native

language only to assist them in completing tasks or to answer a question" (Uriarte, Lavan, Agusti, & Karp, 2009, p. 3).

In order to evaluate the educational outcomes of English language learners in the Boston Public Schools, Tung et al. (2009) conducted the study, *English Learners in Boston Public Schools in the Aftermath of Policy Change: Enrollment and Educational Outcomes, AY2003-AY2006*, in the year before the implementation of Question 2 and in the 3 years after the implementation. This study focused on Spanish-speaking students, which is the largest group of speakers of a language other than English in Boston Public Schools. Study results highlighted differences in outcomes between Transitional Bilingual Education (TBE) and Sheltered English Instruction (SEI). The most significant results were that under TBE, students in English-language programs had lower dropout rates than students in general education programs, while dropout rates increased among students in English-language programs under SEI. Finally, the study also concluded that the achievement gap between students in English language programs and students in general education had increased throughout the four years.

Similarly, in 2009, a group of 15 administrators, educators, and academics, with the assistance of the University of Massachusetts-Boston's Gastón Institute for Latino Community, came together at the request of the Massachusetts Department of Education to evaluate the achievement status of Language Learning Education and make recommendations for increasing the academic performance of ELs in Massachusetts. The resulting data-driven report (English Language Learners Sub-Committee, 2009), showed that, using the Massachusetts Comprehensive Assessment system (MCAS) as the measure, the achievement gap between LEP (Limited English Proficient) students and EP (English Proficient) students in Massachusetts is wider than in other states in the country. This gap had widened by 2008, when the Massachusetts

Board of Elementary and Secondary Education agreed to make proficiency rather than passing the standard of achievement and the requirement for high school graduation, as measured by the MCAS (English Language Learners Sub-Committee, 2009).

The same report showed an increase in the number of ELs referred to special education since implementation of Question 2, attributing the rise to:"(a) lack of academic progress in an English-only environment (SEI or general education); (b) lack of adequately prepared assessors; (c) assessments carried out only in English without validity for this population" (p. 12). ELs at levels 1-3, the lowest levels of English proficiency according to the Massachusetts English Proficiency Assessment (MEPA), the report recommended, should not be expected to score at the Proficient level on the MCAS or other English standardized tests. This is because, the report stated: "current English instruction leads to proficiency for only about 20% of English language learners and that the time frame for even that small group of students to attain proficiency is long (five years or more in Massachusetts schools)" (p. 17).The claim was based on data from MEPA statewide results for Spring 2009 (Massachusetts Department of Elementary and Secondary Education, 2009), which showed the following percentages of ELs scoring Proficient (level 5) after five or more years' instruction in Massachusetts schools: grades 3-4, 30%; grades 5-6, 22%; grades 7-8, 18.7%; high school, 20%. The sub-committee concluded:

> This means that 80% of ELLs are not achieving within five years. In general, proficiency rates are lower in Science (where teaching and testing rely heavily on the ability to communicate content) than in math, signaling that acquisition of content by students who are still in the process of learning English is a problem. (p. 19)

The report also noted that yearly high school dropout rates among ELs in Massachusetts were twice those of English-proficient students and have increased since 2002, lessening only in 2008.

"This raises concerns about the preparation of these students for the standard high school curriculum" (p. 22).

This study of school performance among English-language learners in Massachusetts shows that restrictions in the use of students' native language for instruction has had negative consequences, such as an increase of referrals of ELLs to special education (Serpa, 2011); a high drop-out rate; very low scores on the MCAS ELA and MCAS Science, and Math tests; and lack of preparation for the high-school curriculum. In other words, the data clearly demonstrated that most ELs are not achieving at grade level under the Sheltered English Immersion policy (Serpa, 2011). Clearly, the restrictions on native language instruction that have impacted ELs' school achievement have had the same or worse negative implications for SIFE/SLIFE who are a subgroup of ELs.

Summary

In this chapter, I reviewed existent literature on SIFE/SLIFE programs and performance in U.S. schools. Based on this review, I concluded that the research conducted on these students has focused mostly on students who, although they have low literacy skills in their native language, can read print. Consequently, the recommendations from these studies do not address the needs of Spanish-speaking students who have not had yet the opportunity to learn how to read. I also presented results of educational policies pertaining to ELs that have had a negative impact on the educational trajectories of the subpopulation of ELs who are SIFE/SLIFE.

Chapter 3: Literature Review, Second-Language Reading and Universal Design for Learning (UDL)

This chapter addresses the second component of the literature review for this study, with a focus on second-language-reading research, which is foundational to the model created in this research. The review is organized in two sections. The first section reviews current reading research in a dual-language context. Dual language is perceived as an essential component in the teaching of nonliterate Spanish-speaking SIFE/SLIFE as they learn to read through Spanish instruction while learning to speak English. Learning to read only happens once (Serpa & Colombo, 2010, 2013) and, therefore, after these students learn how to read in Spanish, which takes a short amount of time, they will transfer their reading skills from Spanish as L1 to English as L2. The second section of this chapter reviews the literature on UDL. Typically, SIFE/SLIFE enter school in the United States without English oral proficiency and without knowing how to read. Consequently, if they are to succeed in school, these students must have access to a curriculum and instructional practices that meet their unique needs. UDL is an educational approach that addresses student variability, making learning accessible to all.

It is important to understand how research on reading for ELs differs from research on reading for native speakers. The framework I used for the review of the literature on second-language reading research in this chapter is based on the six essential elements of reading identified by the National Literacy Panel (NLP) (August and Shanahan, 2006), which are grouped as follows: word-level skills—phonics, phonemic awareness, and reading fluency; and text-level skills—vocabulary, reading comprehension, and oral language. The NLP found all of these elements essential for successful reading instruction of English-language learners. Word-level skills represent the basic skills required in "learning to read," whereas text-level skills represent the skills needed in "reading to learn" (Chall, 1983, 1996, cited in August & Shanahan,

2006). The review of each reading element is presented in two sections: (1) studies reviewed by the NLP (August & Shanahan, 2006) from 2002 to 2006, and (2) my review of the most relevant research conducted from 2007 to the present.

The National Reading Panel (2000): Monolingual English Students

In the 1990s, there were conflicting views, or "reading wars," throughout the United States about how to teach reading to monolingual English speakers (Shanahan, 2005). In addition to this controversy, which diminished confidence in public schooling, children's underachievement in basic literacy tests was alarming (Healey, 2002). In order to respond to this crisis, for the first time in history, the federal government, under President Bill Clinton, along with the U.S. Congress, asked the National Institute of Child Health and Human Development (NICHD) to create a panel of researchers, educators, educational administrators and parents (Shanahan, 2005). The National Reading Panel (NRP), was charged to review, evaluate in depth, and synthesize existing research on teaching English-speaking children how to read. The NRP took as a foundation for this major study the work of the National Research Council (NRC) Committee (Snow, Burns, & Griffin, 1998), which was published the day the NRP panel met for the first time.

Shanahan (2005) asserts that the NRC report "provided an excellent starting point for the [NRP] panel, as it included valuable insights into how the scholarly community was beginning to view effective reading instruction" (p. 4). Although the NRC report identified the fundamental skills in beginning reading, it did not address the most efficient instructional methods and materials to teach reading to students with different abilities (National Institute of Child Health and Human Development [NICHD], 2000). In order to expand on the work of the NRC, the NRP followed specific criteria in selecting the studies to be reviewed. These studies had to meet very

strict research methodological standards (NICHD, 2000) (for more details on the criteria that the panel used in selecting the research studies for review, see Methodological Overview in the NRP Report, 2002). The NRP panel concluded that phonics, phonemic awareness, reading fluency, vocabulary, and reading comprehension are essential elements that should be part of any reading program for monolingual English-speaking children to become avid readers. However, the NRP did not include in their review research studies on literacy in English as a second language.

National Literacy Panel: English-Learning Students

Because the NRP (2000) did not address reading for students not yet proficient in English, the National Literacy Panel (August & Shanahan, 2006) was charged with accomplishing that task. Reading in English as a second language is essential for EL students to be able to access academic subjects in English. However, most ELs have experienced the kind of education that has created a reading achievement gap in the past few decades (August & Shanahan, 2006; Echevarria, Short, & Powers, 2006; Francis et al., 2006; Kieffer, 2008; Lopes-Murphy, 2012), in particular Hispanic students who make up the largest group in this population (García, Jensen, & Scribner, 2009; Yopp & Stapleton, 2008). Addressing this achievement gap has become a pressing issue in the field of education (Lesaux, Rupp, & Siegel, 2007).

The federal government provided funding in 2002 for a panel of experts, the National Literacy Panel (NLP) on Language-Minority Children and Youth, to review, evaluate, and synthesize existing research conducted on the literacy development of language-minority students (August, Shanahan, & Escamilla, 2009). This major project was a follow-up to the NRP study. The National Literacy Panel (NLP) was tasked with reviewing existing research on reading for ELs and to generating a comprehensive report on it, which was published in 2006 (August et al., 2009). The NLP identified six essential reading elements as fundamental in

second-language reading acquisition: the same five elements identified by the NRP as fundamental to monolingual reading instruction—phonics, phonemic awareness, oral reading fluency, vocabulary, and reading comprehension; and an additional element—English oral language proficiency (see Figure 2).

Based on these findings, the NLP investigated to what extent the principles and strategies identified as essential elements of reading programs for children who are proficient in English had been shown in research to be effective with English-language learners, especially Spanish-speaking students (August & Shanahan, 2006). The NLP found many fewer research studies on literacy and ELs compared to the large number of studies of literacy and English-speaking students. It is important to note, however, that the NRP was dealing with the entire U.S. population, whereas the NLP was only addressing a small segment of the population. Nevertheless, the dearth of research on ELs and reading represents a significant gap in research on an important segment of the U.S. population.

Despite the limited available evidence, the National Literacy Panel considered that its findings sufficiently accorded with those of the National Reading Panel (August et al., 2009; Irujo, 2007) as to recommend application of the NRP's five essential elements to reading instruction for ELs (August &Shanahan, 2006; Irujo, 2007); but, again based on its own findings, the NLP recommended that oral language should also be considered essential to ELs' literacy development. This sixth element is critical because, as Lesaux and Geva (2006) explain, monolingual classes do not emphasize oral language in reading instruction because students who are native speakers typically have already mastered this skill by the time they enter school. I will further address the importance of oral language in literacy for ELs later in this chapter.

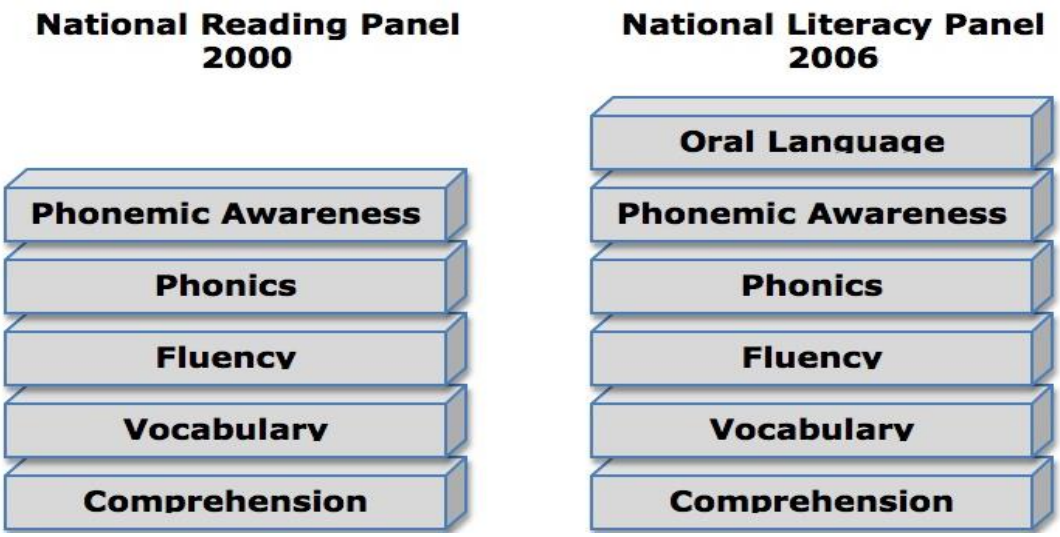

Figure 2. Reading Essential Elements Identified by NRP and NLP. (Serpa & Colombo, 2013)

Definitions of National Literacy Panel Elements.

In its recommendations regarding the six essential elements of reading instruction for ELs, the NLP relied on definitions that are widely accepted in the field of reading research.

Oral Language Proficiency. A complex construct that includes receptive and expressive skills which encompass knowledge of phonology, vocabulary, morphology, grammar, and discourse features (August & Shanahan, 2006).

Phonemic Awareness. The ability to identify and manipulate the individual sounds in spoken words (Shanahan & Beck in August & Shanahan, 2006).

Phonics. The association between the sounds in spoken words and the letters that represent those words (Shanahan & Beck in August & Shanahan, 2006).

Oral Reading Fluency. The ability to read written words with accuracy, speed, and proper expression (Shanahan & Beck in August & Shanahan, 2006).

Vocabulary. Word knowledge that includes two categories: oral vocabulary, comprising words that are recognized in speaking or listening; and reading vocabulary, comprising words that are recognized or used in printing (NICHD, 2000).

Reading Comprehension. The ability to construct accurate meaning from a written text as the reader interacts with the text (NLP, August & Shanahan, 2006; NICHD, 2000).

The next section provides a brief introduction to the research reviewed by the National Literacy Panel on each of these six essential reading elements, followed by my review of the most relevant research conducted from 2007 to the present.

Oral Language Proficiency (Element 1)

The National Reading Panel focused only on native monolingual English and, therefore, did not include oral language proficiency as an essential in learning to read for English proficient students (EPs). Classroom instruction for these students generally does not focus on oral English, as it is their native language and oral proficiency is assumed (Lesaux & Geva, 2006). Conversely, English learners (ELs) begin school speaking a language other than English and need to acquire oral language proficiency in English as L2 to participate successfully in classrooms where English is the language of instruction for reading, writing, and content-area instruction (Saunders, Foorman, & Carlson, 2006; Saunders & O'Brien, 2006). Furthermore, "For younger ELLs, oral English proficiency is of critical importance because it is associated with subsequent English literary skills, which in turn account for school success" (Tong, Lara-Alecio, Irby, Mathes, & Kwok, 2008, p. 1012). Oral English proficiency plays a fundamental role in the development of English reading acquisition among ELs (August & Shanahan, 2006; Genesee, Lindholm-Leary, Saunders, & Christian, 2006). August and Shanahan (2006) underscore the importance of promoting extensive oral English-development during ELs'

instruction in literacy skills. Notwithstanding, Saunders and O'Brien (2006) point out the dearth of empirical studies on oral language development and, therefore, the limited understanding of specific aspects of such development. Saunders et al. (2006) further emphasize the paucity of the research by pointing out that just 50 studies were identified in a review of research conducted in the United States on English oral language outcomes and sound methodology for ELs; and that among these, only one addressed instruction. The authors commented:

> These studies examined oral language assessments, home language use, classroom language choice and use, and developmental aspects of English oral language development. Only one study examined the effects of instruction on students' English oral language proficiency. Hence, there is no U.S. research literature to guide the design and delivery of oral ELD [English Language Development] instruction or to substantiate its effects. (p. 182)

Clearly, there is a need for additional research on the development of instructional practices for ELs.

In pointing out the importance of English oral language proficiency, Geva (2006) states that although English oral language proficiency is but one of the components of literacy development among ELs, the National Literacy Panel dedicated a separate chapter to it in their research-review report. They looked at oral language proficiency through vocabulary, grammar, and listening comprehension, and divided their review into two sections: (1) studies that examined the relationship between English oral language proficiency and word-level reading skills; and (2) studies that examined the relationship between English oral language proficiency and text-level skills. Interestingly, however, the National Literacy Panel Report presents more specific information relevant to the reviewed studies on the other five essential reading elements,

by including a discussion of treatments, than on studies pertaining to oral language proficiency. Rather, review of studies on English oral language proficiency focused more on the discussion of results obtained from these investigations—that is, on outcomes, as opposed to inputs. Hence, Table 12 in *Appendix A* is more limited in presenting information regarding participants and treatments for the studies referenced by the NLP on oral language proficiency. The table features studies that examine the relationship between English oral reading proficiency and word or pseudoword reading. These studies investigated whether ELs' limited English proficiency affected their development of word-reading skills in relation to those of their EP peers (Geva, 2006).

The results of the majority of the studies reviewed by the NLP on the relationship between oral language proficiency and the ability to apply phonological processing skills to English word and pseudoword reading skills showed that oral language proficiency had a positive but moderate effect on word-reading skills. Phonological processing skills, such as phonemic awareness and rapid automatized naming, as well as measures of working memory, were shown to be stronger predictors of English word and pseudoword reading skills than English oral language proficiency. However, Geva (2006) emphasized that due to the paucity of studies examining the effects of oral language proficiency and phonological processing skills on word-level reading skills of ELs in upper grades, these conclusions can only be drawn with confidence regarding younger ELs. It is also important to note that the relationship between English oral language proficiency and word-reading skills is associated, in part, with factors related to how oral language proficiency is assessed. The author cautioned that some measures of language proficiency may be assessing other skills, such as working memory and general mental ability (i.e., oral cloze tests), and not only oral language proficiency. Therefore, the relative lack

of relationship between English oral language proficiency and word reading skills in some studies can be attributed to limitations in the measure of oral language proficiency. That is, some oral language skills may be more related to word and pseudoword reading than others. For example, there is a stronger correlation between lexical knowledge and word reading than between syntactic knowledge and word reading (Geva, 2006). Hence, oral language proficiency plays a greater role in ELs' reading fluency, and therefore, in their reading comprehension, than is generally realized.

Geva (2006) explained that this leaves an important element of reading fluency inadequately addressed: "Because of the first-language focus of the theories on fluency, less attention has been given to the potential role of oral English proficiency in facilitating reading fluency" (p. 132). The NLP found one relevant study on elementary school ELs. Geva reported Jackson and Lu's finding (1992) that students from a variety of language backgrounds who were assessed with the Peabody Individual Achievement Test (PIAT) before beginning Grade 1 showed advanced ability to comprehend text, although they scored lower than their EP counterparts on oral English tests. However, because they were as fluent as their native peers in orally reading text, word recognition, and orthographic tasks, these students were able to read more fluently than expected, given their oral language skills in English (Geva, 2006). The NLP did not find any relevant studies on the relationship between English oral language proficiency and reading fluency for ELs in middle or high school. On the other hand, studies involving ELs in elementary school revealed that there is a positive correlation between oral language proficiency and reading comprehension. Appendix A, Table 13, features studies that examine the relationship between English oral reading proficiency and reading comprehension.

The studies reviewed by the NLP on the relationship between oral language proficiency and reading comprehension revealed that well-developed oral language proficiency in English has a positive effect on ELs' reading comprehension. Notably, language proficiency, such as oral vocabulary knowledge, awareness of cognates, listening comprehension, oral storytelling skills, and syntactic skills are aspects of oral language proficiency that are associated with reading comprehension (Geva, 2006). The ability to provide definitions of words—a decontextualized aspect of language—also improves reading comprehension. Geva reminds us that although these findings are important, especially regarding young ELs' reading performance, children must acquire prior literacy skills in either the first or second language to be able to read print effortlessly. Looking at the NLP review of studies conducted on English oral language proficiency, it is clear that this is a fundamental skill in ELs' literacy acquisition. In the next section, I review selected studies on oral language proficiency from 2006 to 2015 (see *Appendix A*, Table 14) to determine whether these studies support the NLP findings.

Four studies (Hinrichs, 2008; Kieffer, 2008; Saunders et al., 2006; Tong et al., 2008) examined the role of oral language proficiency on the reading performance of ELs in Grades K-5. Kieffer's (2008) investigation consisted of a secondary analysis of data collected from the Early Childhood Longitudinal Study-Kindergarten Cohort (ECLS-K), a nationally representative sample of U.S. elementary school children. Participants were 17,205 ELs and EPs in Grades K-5. Kieffer's purpose was to identify which differences in initial English language proficiency at the time of school entry influence growth in English reading, by measuring students' English language proficiency before they began formal school. He compared two groups of ELs—those who entered kindergarten with limited English oral language proficiency and those who entered kindergarten proficient in oral English—with EPs. Like Kieffer (2008), Saunders et al. (2006)

did not conduct an intervention. Their investigation examined the effects of a separate block of time for oral-language-development instruction by observing 85 kindergarten classrooms, which varied according to whether English language development (ELD) was a separate block, and whether the students were part of an immersion or bilingual program. The participants consisted of 1,400 K EL students.

In Kieffer's (2008) study, students' reading achievement was measured with a test created by a panel of experts to assess recognition of letters, recognition of phonemes, decoding, vocabulary, and five types of reading comprehension skills. Based on the English Pre-Language Assessment Scales (Pre-KLAS), students received one of two designations: ELLs, limited English proficient (ELLs-iELP); or ELLs, fluent English proficient (ELLs-iFLP). Kieffer found ample differences between the English reading level of ELs and EPs when ELs were controlled for initial language proficiency. ELs who were proficient in oral English language when they entered kindergarten were successful in developing reading skills, whereas ELs who entered kindergarten with limited proficiency in English struggled throughout elementary school. Furthermore, the author concluded that ELs who enter school orally proficient in English obtain levels of English reading achievement equivalent to those of their EP counterparts. Conversely, ELs who enter school with limited English proficiency present great difficulties in English reading achievement. Even those students who gained oral English proficiency rapidly throughout kindergarten continued to lag behind their EP peers in third and fifth grades.

Kiefer (2008) noted that the strong performance of ELs who entered school with fluent proficiency in English oral language was consistent with prior research findings that exposure to a language other than English before kindergarten does not have a negative effect on English reading achievement. In referring to the disadvantageous situation for ELs who enter

kindergarten with limited proficiency in English oral language, Kieffer states, "For these learners, moderate proficiencies in reading at the end of kindergarten grow into large deficiencies as text demands increase, likely in part because of their persistently low vocabulary levels" (p. 865). The author explained that this lack of vocabulary in the early elementary grades has detrimental effects on students' English reading ability in the upper elementary grades. As students transition from learning to read, a stage when they use mainly basic vocabulary acquired through conversation, to reading to learn, a stage when students are required to learn content through reading, they must acquire more academic vocabulary in order to comprehend text. It is at this stage that ELs with limited initial oral proficiency stumble.

Saunders et al. (2006) administered oral language and literacy measures to kindergarten participants. They used the Woodcock Language Proficiency Battery-Revised (WLPB-R): English and Spanish forms to measure the students' oral language skills. Literacy measures were based on alphabetic knowledge—identifying letters in English and Spanish. Students were required to identify at least one sound for each of the 26 letters of the English alphabet and for each of the 30 letters of the Spanish alphabet. In addition to assessing alphabet knowledge, the authors assessed word-reading skills with the word-identification (*identificación de letras y palabras*) subtest from the Woodcock Language Proficiency Battery-Revised (WLPB-R): English and Spanish forms. For the classroom observation measures, the observers used a tape-recorded designation of minutes, and they coded instructional format, content of teaching, and teacher's language each minute and student's language every other minute. Surprisingly, Saunders et al. (2006) found that the percentage of classrooms implementing separate ELD blocks was the same for each program type, English immersion and bilingual. In examining the language and content of language/reading arts instruction, the authors found that there was little

variation in the activities that were part of oral language instruction, independent of program, class type, or language.

Discussion and listening comprehension made up approximately 94% of oral language activities in all programs, whereas little time was devoted to more abstract and academic oral language activities. Further, oral language that focused on targeted vocabulary and language structure instruction comprised only 6% of oral language activities and, therefore, was rarely observed. The non-ELD block classrooms had longer language/arts periods in comparison to ELD block classrooms. However, the classrooms with an ELD block devoted more time to oral language and literacy activities and less to non-reading and non-instructional activities. Whether in English immersion or bilingual programs, teachers who implemented ELD blocks were more efficient than those who did not. In order to find out whether a separate ELD block improved student achievement, the authors analyzed kindergarten students' oral language and literacy scores, controlling for pretest scores. They found that kindergarteners who were in classrooms which had an ELD block showed higher English oral language scores, higher word identification scores, and higher letter-sound scores, supporting the importance of a separate block of time for oral English language development in programs for ELs.

Two studies (Hinrichs, 2008; Tong et al., 2008) focused on interventions using instructional strategies to improve ELs' English language development. Tong et al. (2008) examined the effects of a 2-year (kindergarten and first-grade) oral English intervention with two program types, transitional bilingual education (TBE) and sheltered English immersion (SEI), seeking to determine which format better accelerated ELs' oral English development. Hinrichs (2008) investigated the effect of instructional strategies that promote vocabulary and listening comprehension growth in ELs in Grade 1 who are placed in monolingual classrooms with little

or no support in their L1 and, in addition, face the challenge of the number of years it takes to acquire academic language. Tong et al. (2008) conducted a three-tier intervention with 534 K-1 ELs in TBE and SEI programs. In the kindergarten year and the first semester of Grade 1, TBE-Enhanced/Experimental (TBE-E) Tier I consisted of regular academic classes instruction in Spanish in K-1; Tier II consisted of ESL intervention; and Tier III consisted of communication games developed by the research team. During the second semester of Grade 1, communication games were substituted for early interventions in reading (EIR) Level 1. SEI Enhanced/Experimental (SEI-E) instruction was structured with an identical tier intervention model in kindergarten and first grade with a separate ESL block. The only exception was that in SEI-E, English was the language of instruction used in Tier I.

Tong et al. (2008) concluded that although all students improved in their oral language development throughout the two years, independently of program type, groups with enhanced practices significantly outperformed the control groups. The authors report that SEI-Typical Control (SEI-T) classrooms had higher L2 oral language skills at the time of school entry. However, SEI students receiving enhanced practices made large gains in oral language and, by the end of first grade, they had attained equivalency with students in the SEI-T group. On the other hand, students in both bilingual groups showed the same levels of oral English skills at the time of school entry. At the end of the two years of intervention, the TBE group receiving enhanced practices outperformed their peers receiving typical instruction in language acquisition. The authors documented that the gap between the intervention and control TBE groups had increased by the end of first grade and, furthermore, they advanced that the teachers' frequent use of academic English language within an enhanced structured curriculum in TBE-E classrooms increased oral English proficiency.

Hinrichs's (2008) study population consisted of five Grade 1 participants. The intervention focused on an instructional package that targeted explicit instruction in two areas: (1) Tier Two vocabulary words, regarded as high-frequency words found in written tests and spoken language; (2) explicit instruction in the five elements of retelling: setting, characters, details and events, sequence, and ending. Hinrichs read fictional books aloud to the students and initiated conversations before, during, and after the read-aloud. The treatment consisted of three 6-week phases of instruction. In each phase, students learned 10 Tier Two words. Results showed that receiving explicit instruction in each set of words, having opportunities to experience the words in different contexts, and practicing them in conversations improved all students' vocabulary assessment scores. Regarding listening comprehension, all of the students revealed positive growth in their ability to retell a story that they listened to using the five elements. Hinrichs concluded that each student in the study showed gains in both vocabulary and listening comprehension through the use of the instructional package.

My review of the literature revealed the critical importance of English oral language proficiency as a necessary element in the English reading achievement of ELs. As previously stated, ELs must acquire English oral language proficiency to be able to participate effectively in English as a second language reading, writing, and content-area classes. Although research findings have pointed to a positive but moderate correlation between English oral language proficiency and word-level reading skills (Geva, 2006), studies have also shown a strong relationship between English oral language proficiency and reading comprehension. For example, Kieffer (2008) found that ELs who were orally proficient in English when they entered kindergarten obtained levels of English reading achievement equivalent to those of native English-speaking peers. On the other hand, ELs who entered kindergarten with limited English

oral language proficiency had significant difficulties in English reading achievement. The author further emphasized that even students who acquired English oral proficiency rapidly throughout kindergarten lagged behind their native English-speaking counterparts in third and fifth grade.

The unanimity of results in these four studies provides strong evidence for the effectiveness of enhanced oral language practices on ELs' development of English oral language proficiency. Notably, research has shown that enhanced oral language practices have yielded positive effects on ELs' English oral language development (Hinrichs, 2008; Saunders et al., 2006; Tong et al., 2008) and, therefore, researchers have concluded that effective classroom instruction is a determinant in ELs' performance in oral language proficiency.

Phonemic Awareness (Element 2)

Phonemes are the smallest units of sounds in spoken words. Phonemic awareness (PA) is defined as the ability to identify and manipulate the units of sounds in a spoken word that are represented by letters of the alphabet and, as such, it is a component of oral language. In contrast with phonological awareness, "the ability to consciously attend to the sounds of language as distinct from its meaning" (Lesaux & Geva, p. 55), phonemic awareness is a less inclusive term. As Snow et al. (1998) explain:

> Phonemic awareness is the insight that every spoken word can be conceived as a sequence of phonemes. Because phonemes are the units of sound that are represented by the letters of an alphabet, an awareness of phonemes is key to understanding the logic of the alphabetic principle and thus to the learnability of phonics and spelling. (p. 52, also stated in Lesaux & Geva, 2006, p. 55).

The study of PA dates back to the 1970s. For American English, PA comprises more than 20 components. For an overview of the assessment tasks in phonemic awareness, see Torgesen's work in *Appendix A*, Table 15.

The importance of PA in word-reading acquisition among monolingual-English speakers was well documented in the National Reading Panel (NRP) report (NICHD, 2000). This finding is supported by the National Literacy Panel's work (August & Shanahan, 2006) even though it considered a very limited number of studies on reading development among monolingual children. Notably, these studies also showed that ELs perform comparably to, or better than, native speakers of English on phonemic awareness tasks (Lesaux, Koda, Siegel, & Shanahan, 2006). Indeed, the NLP (August & Shanahan, 2006) reported on three studies (Chiappe & Siegel, 1999; Chiappe, Siegel, & Wade-Wooley, 2002; Wade-Wooley & Siegel, 1997), showing that the phonemic awareness of elementary-grade ELs experiencing literacy difficulties was comparable to that of their EP peers who presented similar difficulties (Lesaux, Koda, Siegel, & Shanahan, 2006). In other words, phonemic awareness and literacy were comparably linked in both groups. The above studies on PA assessments among ELs are presented in Appendix A, Table 16.

Given this well-documented connection between phonemic awareness (an oral language component) and reading performance by the NLP (August & Shanahan, 2006), this section reviews selected studies on phonemic awareness from 2006 to 2015 (see Appendix A, Table 17), in order to examine whether studies conducted subsequently to the NLP report confirm its conclusions on the role of phonemic awareness in literacy.

Three studies (Brice & Brice, 2009; Linklater, 2007; Walter, 2010) focused on PA with kindergarten students and one study (Yang, 2009) focused on third-graders. Both Linklater and Walter investigated whether measures of PA predicted later reading performance among ELs in

kindergarten. In addition, while Linklater's (2007) study also evaluated the growth of early literacy skills of 401 kindergarten students (289 EPs and 112 ELs), Walter (2010) examined whether an intervention focusing on PA had an effect on early reading skills of 20 ELs in kindergarten. Linklater (2007) assessed all students in the fall, winter, and spring on measures of initial sound fluency (ISF), phoneme segmentation fluency (PSF), and a combined phoneme segmentation task (C-PST). Results showed that there was not a significant difference in ISF, PSF, and C-PST kindergarten curves between ELs and EPs. The author concluded that this lack of difference suggested that, regardless of children's language status, teachers could apply the same expected growth rate when establishing student goals and evaluating their progress. Furthermore, this study showed that overall, ISF and C-PST contributed significantly to the accountability variance in both nonsense word fluency (NWF) and the Woodcock Reading Master Test Short Scale (WRMT-R/NU), showing that these phonemic measures given in the beginning of kindergarten can predict word reading and reading comprehension for EL students.

Walter (2010) also compared students' scores of winter and spring Dynamic Indicators of Basic Early Literacy Skills (DIBELS) measures of phoneme segmentation fluency (PSF), nonsense word fluency (NWF), letter naming fluency (LNF), and word use fluency (WUF) after a 10-week intervention of supplemental instruction on PA. Her participants, selected based on a high-risk score obtained on the five (DIBELS) winter benchmarks, made significant progress in PA, moving from high risk to above average. Like Linklater, Walter concluded that measures of phonemic awareness, such as PSF and NWF, are predictive of early reading skills for kindergarten ELs. The results indicated that there was a statistically significant increase between winter and spring DIBELS scores in all four areas: PSF, NWF, LNF, and WUF. A high percentage of ELs met the DIBELS spring benchmark goal, although all participants had scored

at the high-risk level in all DIBELS winter benchmarks. Walter thus found that an intensive intervention in the area of PA is an important strategy for targeting weaknesses in foundation literacy skills for ELs.

Consistent with these results, Yang (2009) also found that an 8-week intervention of instruction in PA with Grade 3 Taiwanese students improved these ELs' PA and early reading skills. Her participants were two third-grade classes, an experimental group class of 34 students, and a control group class of 33 students. A five-step treatment was administered in two sessions of 40 minutes, twice a week for 8 weeks. At the end of class, students read the picture book in unison to their teacher. Yang concluded that the students in the experimental group improved their English PA, compared with the students in the control group who did not receive the same phonemic awareness instruction.

Further examining the connection between phonemic awareness and reading performance, Brice and Brice (2009) investigated whether 80 EP or Hispanic EL kindergarten students showed a difference in phonemic awareness and phonics skills based on high versus low reading ability, and on monolingual versus bilingual language abilities. The researchers used two DIBELS kindergarten benchmarks, in which fall testing included the ISF and the LNF, and winter testing included the ISF, LNF, PSF, and NWF. This study showed that participants' reading level was a major factor in their phoneme and grapheme identification ability, confirming previous research that phoneme and grapheme identification are precursor skills in learning to read for both monolingual and bilingual students (Brice & Brice, 2009). Although the achievement gap between monolingual and bilingual was not as great as the authors had expected, they recommended early intervention targeting phoneme and grapheme identification at kindergarten level to lessen the gap that was observed. Notably, Brice and Brice (2009) also

investigated whether there was a difference in the identification of voiced and voiceless phonemes, and voiced and voiceless graphemes, based on monolingual versus bilingual language abilities. Both monolingual and bilingual students more often identified words with voiced phonemes than words with voiceless phonemes. This result suggests that teachers should emphasize identifications of voiceless phonemes for both ELs and EPs.

These several studies indicated that ELs who showed word-reading difficulties also demonstrated difficulties in phonemic/phonological awareness, and suggested that the same is true for EPs with reading difficulties. These results point to a strong correlation between phonemic awareness and learning to read among ELs, which supports the NLP findings. Phonemic awareness is a precursor language skill in learning to read because "it is key to understanding the logic of the alphabetic principle and thus the learnability of phonics" (Snow et al., 1998, as cited in Brice & Brice, 2009). Phonemic awareness is an essential language component in learning to read in both first and second languages and, therefore, must be part of early reading programs for ELs.

Phonics (Element 3)

Phonics, another essential component in learning to read, is the relationship between the sounds in spoken words and the letters that represent those sounds (Snow et al., 1998; Mesmer & Griffith, 2005). According to the NRP, learning to use sound-letter relationships in decoding words is fundamental to early reading development (Shanahan & Beck, 2006). Phonemic awareness and phonics are related, because students learn to identify sounds in spoken words before learning their written representations. Shanahan and Beck (2006) asserted that, "There is evidence that approaches to phonemic awareness that include letter-sound associations are more effective than those that are only speech based" (p. 425); and Snow et al. (1998) explained that

children who lack phonemic awareness do not fully learn their phonics lessons. Consequently, some research studies, such as the Brice & Brice study reviewed above (2009), address both phonemic awareness and phonics. The NLP reviewed five studies on phonics (Gunn, Biglan, Smolkowski, & Ary, 2000; Gunn, Smolkowski, Biglan, & Black, 2002; Kramer, Schell, & Rubison, 1983; Larson, 1996; Stuart, 1999) that also examined phonological awareness. See *Appendix A*, Table 18, for a summary of these studies' findings. The results of these studies showed a positive effect on early reading development, consistent with the findings conducted by the NRP on first-language research (Shanahan & Beck, 2006; Vadasy & Sanders, 2012). Following is a review of selected studies on phonics from 2006 to 2015 (see *Appendix A*, Table 19), which are examined to assess whether they support the 2006 NLP findings on phonics.

Three studies (McCain, 2008; Miller, 2013; Vadasy & Sanders, 2010, 2012) examined the effects of phonics-based instruction on ELs' reading performance. McCain (2008) and Miller (2013) investigated whether Grade 3 ELs who participated in an explicit and systematic phonics program improved their reading achievement, while Vadasy and Sanders (2010) investigated the effectiveness of supplemental phonics instruction for low-skilled EL students in kindergarten.

The participants in McCain's (2008) study were 199 Grade 3 students: 89 EPs, 79 ELLs, 13 EPs with disabilities (EPLD), and 18 ELLs with disabilities (ELLLD). The number of participants in Miller's (2013) study was significantly smaller—29 ELLs, 8 of whom were in Grade 5. McCain's intensive, explicit, structured phonics-based programming (IESPP) intervention was delivered every day during a 2.5-hour literacy block. Measures of oral reading fluency were based on number of words read per minute, and were collected at three benchmarks. Miller's (2013) Sing, Spell, Read, and Write (SSRW) phonics curriculum, which included music, was implemented within the RTI educational framework as a tier-two reading

intervention in the Response to Intervention (RTI)[5] process. The curriculum was implemented for 30 minutes during a period of 8 months, with explicit and systematic instruction in letter names, letter sounds, short and long vowels, consonant blends, and vowel combinations through the daily repetition of songs. In both studies (McCain, 2008; Miller, 2013), participants made significant improvement in "word reading skills," known as decoding, at posttest after a phonics-based treatment.

McCain (2008) concluded that all groups (EP, EPLD, ELL, and ELLLD) showed progress in oral reading fluency as an indicator of phonics skills. However, the performance gap between students with disabilities and students without disabilities did not diminish between the pretest and posttest outcomes. Differences in performance between English speakers with disabilities (EPSWD) and English learners with disabilities (ELLSWD) were insignificant, indicating that students' oral language proficiency, which the researcher labeled as language status, did not seem to influence the acquisition of phonics; rather, the determining variable was disability. Similarly, Miller (2013) concluded that the use of SSRW phonics curriculum with ELs

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[5] RTI is a three-tiered model of intervention for learning. Its purpose is to provide "at-risk" students with support that will help them progress academically and possibly avoid referral to special education assessment. The first tier of intervention occurs in the general education classroom; it offers a research-based intervention and monitoring of progress. When a student doesn't respond to the tier-one intervention after a set period, "s/he moves into tier two, with more frequent more intensive interventions. If a student does not respond to tier-two interventions, students move to tier three, which offers even more intense and individualized interventions, such as one-on-one instruction" (Miller, 2013).

showed a positive effect on students' reading achievement. In addition, the participating teachers reported an increase in students' confidence and motivation to read after implementation of the program, as well as an improvement in decoding skills, which helped their oral reading fluency, comprehension in reading, and spelling in writing.

Vadasy and Sanders (2010) went a step further than McCain (2008) and Miller (2013) and investigated the effectiveness of supplemental phonics instruction, focusing on both type and amount of classroom instruction. Their sample consisted of 148 low-skilled EL and EP kindergarten students. The researchers assessed all the students' early literacy skills using three measures: two measures of alphabetic knowledge (letter name and sound accuracy) and a test of phonological awareness. Regardless of oral language proficiency status, the treatment group outperformed the control group significantly at posttest in alphabetic skills, word reading (decoding), spelling, passage-reading fluency, and comprehension. However, EL students had lower performance at posttest than EPs and showed a significantly lower response to treatment on word-reading than their EP peers. In examining the benefits of classroom phonics time on all students' outcomes, Vadasy and Sanders (2010) concluded that "the treatment effect on spelling was greater for students in lower phonics classrooms[6] whereas the treatment effect on comprehension was greater in higher phonics classroom" (p. 989). Students in lower phonics classrooms showed a greater improvement in spelling, whereas students in higher phonics classrooms showed a greater improvement in comprehension. Also, ELs' pretest receptive English vocabulary positively predicted most posttests and interacted only with treatment on

[6] Lower phonics classrooms emphasized meaning-oriented reading instruction, whereas higher phonics classrooms emphasized word-oriented instruction (Vadasy & Sanders, 2012).

phonological awareness. Although these findings corroborate the benefits of phonics instruction on students' reading outcomes, the authors advanced that questions remained about early interventions for ELs, such as components of classroom literacy instruction, timing of intervention, and precursor reading and language skills which impact response to intervention. The authors pointed out that there was a lack of research on identifying instructional features that may improve the reading performance of students with different levels of literacy and oral language proficiency skills. They stressed the importance of teaching phonemic and alphabetic skills along with explicit phonics instruction, particularly before first grade. Other experts would question this recommendation (Serpa and Colombo, 2010, 2013), arguing that there is no essential need to teach letter names or the alphabet sequence as components of the initial phonics instruction. Letter-sound relationships are what students need to master in the process of learning to read printed language.

To examine phonics treatment effects over time for ELs and EPs, as well as to address aspects of classroom literacy instruction, Vadasy and Sanders (2012) conducted a follow-up research study. They followed the same students for 2 years, those who had received the supplemental kindergarten phonics-based treatment and those in the no-treatment control group. The authors investigated whether instructional time on word-study, such as phonics and spelling, and instructional time on word meaning, such as vocabulary and comprehension, influenced students' outcomes. During the two first and second grades for these students, most were assessed each fall and spring on measures of reading, spelling, reading fluency, and reading comprehension. In addition, each year they invited teachers of students from the original study (Vadasy & Sanders, 2010) to conduct classroom literacy observations three times, November/December, February/March, and May/June, using an adapted version of the

Instructional Content Emphasis—Revised (ICE-R; Edmonds & Briggs, 2003) as the observation tool.

In this 2012 study, Vadasy and Sanders found that supplemental phonics intervention in English during the kindergarten year continued to show benefits for ELs and EPs 2 years after the treatment. For ELs the improvements were significant on word reading and spelling, whereas for EPs the benefits were significant on word level, fluency, and comprehension. They posited that the differences may have been due to the lesser oral language proficiency level of ELs. Upon converting the students' average standard scores into percentiles, the authors concluded that after 2 years, EPs scored near the 50th percentile on word reading, spelling, and comprehension, while EL students scored near the 50th percentile only on word reading. In other words, 2 years after the kindergarten intervention, EL students still lagged behind EP students in comprehension. Moreover, 2 years later the gap had increased to about 10 standard score points. The researchers attributed this gap to EL students' limited vocabulary knowledge in English as their second language, an indication that their knowledge was still under development.

Vadasy and Sanders (2010) concluded that these results suggest that English language proficiency is fundamental in order for the supplemental phonics instruction to be beneficial for outcomes beyond those targeted by the intervention. While EPs showed improvement on more advanced reading skills with code-focused instruction, ELs needed more support on oral language and vocabulary, which promotes fluency. This finding confirmed Irujo's (2007) recommendations for effective literacy instruction for ELs.

Irujo (2007) pointed out that systematic phonics instruction is very effective in helping ELs learn to decode words, regardless of their language proficiency. However, it does not improve students' reading comprehension if their oral language proficiency is not at the level of

the texts they are supposed to read. Irujo emphasized the importance of combining reading instruction with intensive development of the oral language in L2 needed to understand text. The author asserted that "teachers must pay attention to the meanings of the words used to teach phonics skills. Teaching students to decode words they don't know only reinforces the idea that 'reading' is pronouncing sounds out loud rather than creating meaning" (p. 3). I focus on oral language proficiency later in this chapter.

Vadasy and Sanders (2012) also reported that kindergarten pretests on alphabetic knowledge predicted longer-term outcomes for EL students, but not for EP students when there were instructional variables present. However, when instructional variables were absent, alphabetic knowledge predicted outcomes for both ELs and EPs, which, according to the authors, confirmed prior research that EL students had lower alphabetic knowledge than their EP peers at the beginning of the study. These findings suggest that phonics intervention has a greater impact for kindergarteners who have low alphabetic knowledge.

With regard to classroom literacy instruction, the researchers observed that taking into account word study- and meaning-focused activities that students received, the results differed for ELs and EPs. EL students who were in the bottom half of their kindergarten class at the beginning of the study and received word study-focused instruction (phonics and spelling) in Grade 1 and word meaning-focused instruction (vocabulary and comprehension) in Grade 2 showed the strongest benefits in the second-grade outcomes. The authors concluded that the treatment impacts were small or non-existent for students who received more time for word study instruction (phonics and spelling) in Grade 1. However, EP students reached greater treatment impacts if they received more time for word study (phonics and spelling) instruction in Grade 2.

This review of the literature on phonics shows that in addition to phonemic awareness, phonics is a fundamental component in *learning to read* among ELs, supporting the NLP findings. Therefore, phonics instruction should be part of reading programs for ELs. It is important to provide extra time for phonics instruction along with oral language development so ELs can learn to speak the sounds of the new language and recognize them. In addition, they must learn the various combinations of letters that make the same sound and the meanings of words used in phonics instruction (Irujo, 2007).

Oral Reading Fluency (Element 4)

Fluency in oral reading (vs. speaking in a second language) gained more attention as an essential component in learning to read after a large study conducted by the National Assessment of Educational Progress (NAEP) on fluency status, which found 44% of 4th graders to be disfluent with grade-level stories (NICHD, 2000). During much of the twentieth century, oral reading fluency was viewed simply as proficient word recognition; therefore, instruction focused mainly on the development of word recognition, neglecting fluency (NICHD, 2000). However, reading fluency is more than word recognition: it means reading with accuracy, expression, and speed (Shanahan & Beck, 2006). Fluency depends upon rapid word recognition that allows for the reader to have enough cognitive resources left to simultaneously attend to the meaning of the text (Healey, 2002; Shanahan, 2005; Shanahan & Beck, 2006, Wang, 2011). In other words, without fluency, readers will be overloaded attending to word identification, precluding comprehension. Students who read text slowly and, therefore, have low fluency have difficulties with comprehension (Shanahan & Beck, 2006; Snow et al., 1998). Reading fluency also entails the ability to group words into grammatically correct sentences, to rapidly apprehend appropriate

punctuation (that mimics oral communication), and to determine when to put emphasis and make pauses in text (NICHD, 2000; Shanahan & Beck, 2006).

The National Reading Panel found that after native speakers participated in repeated oral reading passages, their reading achievement improved, especially when they received instruction by teachers and peers. Their report concluded that oral reading fluency is indicative of overall language proficiency. This conclusion, however, applied primarily to native (L1) speakers (NICHD, 2000). However, while the NRP found 51 studies on reading fluency instruction and concluded that these practices led to greater fluency and better comprehension, the NLP only found two studies (De la Colina, Parker, Hasbrouck, & Lara-Alecio, 2001; Denton, 2000) that investigated fluency instruction for English-language learners (Shanahan & Beck, 2006). The two studies reviewed by the NLP are presented in Appendix A, Table 20.

According to Shanahan and Beck (2006), both studies on ELs found that students who received a fluency intervention made progress in word reading. The authors pointed out, however, that in contrast with Denton's (2000) study, subjects in De la Colina et al.'s (2001) study also showed improvement in reading comprehension, corroborating the importance of fluency in reading. Students' oral reading fluency improved more than their reading comprehension, a finding that is also consistent with the NRP's findings on native English speakers (Shanahan & Beck, 2006). The NLP found only two studies on oral language fluency with ELs that showed fluency interventions were beneficial for ELs. These findings are similar to those observed by the NRP on oral language fluency for proficient English speakers (Shanahan & Beck, 2006). These two studies thus indicated that oral fluency is associated with L2 proficiency for ELs in the same way that it is associated with L1 proficiency for native speakers. Following is a review of selected studies on oral reading fluency, from 2006 to 2015

(see *Appendix A*, Table 21), which examines whether these later studies support the NLP's 2006 findings on oral reading fluency.

Three studies (Allen-DeBoer, 2008; Chirchick, 2009; Wang, 2011) examined whether a fluency intervention had a positive effect on oral reading fluency of ELs. Two of the studies (Allen-DeBoer, 2008; Chirchick, 2009) included participants in Grades 4 and 5, while Wang's (2010) study targeted only Grade 5 students.

Allen-DeBoer's study consisted of a single-case multiple baseline design with three male Latino ELs whose language proficiency was level 3. She used the response to intervention (RtI) framework, given that the participants' reading fluency was at the 10th percentile. The researcher investigated the effects of a modified *Corrective Reading* program on the oral reading fluency of these three students. *Corrective Reading* is an explicit, systematic phonics-based direct instruction curriculum, which consists of four parts: word attack, story reading, daily reading checkout, and a workbook assignment. For this study the daily reading checkout, as well as the workbook assignment, were omitted in order to include more time for oral fluency-building exercises. Instead of the daily reading checkout, each student completed a daily oral reading probe, read a DIBELS grade-level passage for one minute, and documented their rate and errors. As part of the modifications to the *Corrective Reading* program, there were Spanish translations of various vocabulary words, Spanish cognates, visual aids, review of vocabulary for meaning and accuracy, review of vocabulary errors for meaning, and the use of gestures to promote oral reading fluency. Students graphed their words correct per minute (WCPM) and errors on a piece of pre-formatted graph paper, which allowed them to see and monitor their progress, a motivational factor. The intervention consisted of 40 minute-sessions of the 2.5-hour after-school program, three times per week for 10 weeks.

As a pre- and posttest measure, students took the Woodcock-Muñoz Language Survey—Revised (WMLS-R) in Spanish and English to assess growth in reading and comprehension skills. In addition, as qualifying criteria for this study, the Decoding Placement Test was used to determine the *Corrective Reading* placement level and DIBELS oral reading fluency benchmarks probe to determine oral reading fluency level. In order to determine if there were any cross-language transfers from English to Spanish, the researcher also used a pre- and post-intervention measure to assess students' oral reading fluency in Spanish. In reviewing the WMLS-R pre- and posttest results, Allen-DeBoer (2008) reported that participants' reading English scores increased an average of 1.5 grade-level equivalent, and comprehension scores increased an average of 1.6 grade-level equivalent as a result of the intervention. According to the WMLS-R Spanish results, participants' scores increases 1.9 grade-level equivalent in reading and 0.7 grade-level equivalent in comprehension. The author concluded that the students' increased scores in oral reading fluency may have been the result of a focus on decoding and phonemic awareness through the systematic phonics-based instruction provided in the intervention. The increase of more than one grade-level equivalent score in reading for all participants supports the Theory of Automaticity (La Berge & Samuels, 1974, cited in Allen-DeBoer, 2008; & Wang, 2011), which posits that an increase in fluency results in an increase in comprehension. In addition, the author also reported that according to the pre- and posttests on the WMLS-R, the three students showed a concurrent increase in English and Spanish reading comprehension skills after an English reading intervention. This result is again consistent with those of prior research studies.

Both Chirchick's (2009) and Wang's (2010) studies included a larger sample. Chirchick's participants were 76 ELs. Twenty-four students were part of the control group:14 in Grade 4, 10 in Grade 5; and 26 students were part of the treatment group: 14 in Grade 4, and 12

in Grade 5. Chirchick (2009) investigated whether a supplemental reading program that included content-based English-Language Development (ELD) and Specially Designed Academic Instruction in English (SDAIE) pedagogies would increase students' reading fluency and motivation. The intervention took place three times a week for 8 weeks. To develop students' fluency, each intervention session included five research-based learning activities: read aloud, phonemic awareness, syllabification, fluency, and academic vocabulary. To increase students' motivation, teachers used cooperative learning strategies, provided opportunities to discuss lesson material, and used rewards throughout the reading intervention sessions.

In Wang's study, there were 50 Grade 5 ELs in the treatment group, and the results after the intervention were compared to available archive scores of 47 students in Grade 5 in the school year 2008-2009. Wang (2011) investigated the effectiveness of repeated-reading procedures on reading fluency and comprehension. The intervention took place for 15 minutes per day, 5 days per week, for 11 weeks during the school's original English reading periods. The participants read one lesson during each intervention, for a total of 55 lessons from the QuickReads Level C books. Each lesson was read three times: the first time, the student read alone; the second time, the student read with the teacher; and the third time, the student read alone again. Then the number of words read in a minute was recorded in a log.

Both Chirchick (2009) and Wang (2011) found that opportunities for repeated oral reading led to a significant increase in students' scores on oral reading fluency. In addition, Wang also reported a 2.67% increase in scores on comprehension from November to February (without treatment), but a 5.41% increase in scores from February to May (with treatment). These results are consistent with Allen-DeBoer's (2008) findings, and with the Theory of

Automaticity (La Berge & Samuels, 1974, cited in Allen-DeBoer, 2008; & Wang, 2011)—increase of fluency results in an increase of comprehension.

My review of literature on reading fluency shows that in addition to phonemic awareness and phonics, fluency is a fundamental component in learning to read for ELs (as it is for native English speakers). This conclusion supports the earlier NLP findings. Fluency plays a major role in skilled reading because it impacts comprehension (and is based on the efficient use of phonics). Consistent with the Theory of Automaticity (La Berge & Samuels, 1974, cited in Allen-DeBoer, 2008; & Wang, 2010), if a reader's attention is focused on word recognition and decoding skills, the cognitive capacity required for comprehension is compromised. The relationship between fluency and comprehension has impelled researchers to find effective instruction strategies to improve students' oral reading fluency. Although in my literature review I found that repeated reading was one of the instructional practices used in studies that showed a positive effect on fluency and comprehension, Irujo (2007) cautioned that ELs cannot achieve oral reading fluency if they have not achieved speaking fluency. The author pointed out that repeated readings of texts that contain unknown vocabulary and sentence structures will not increase fluency, and that teachers should only use texts which students can understand.

Vocabulary (Element 5)

Vocabulary knowledge, another essential element in learning to read, is strongly related to reading comprehension. The NRP explained that in the process of learning to read, learners rely on their oral vocabulary as they encounter words in the text. In describing the importance of vocabulary, the NRP stated:

> A benefit in understanding text by applying letter-sound correspondences to printed material only comes about if the resultant oral representation is a known word in the

> learner's oral vocabulary. If the resultant oral vocabulary item is not in the learner's vocabulary, it will not be better understood than it was in print. (NICHD, 2000, p. 4-15)

Hence oral vocabulary is fundamental in the transition from oral to written forms, and reading vocabulary is key in the comprehension of text (Biemiller & Boote, 2006; NICHD, 2000). Notably, this finding puts ELs at a disadvantage, when compared with their native English-speaking peers, due to their more limited oral exposure to English words before learning to read (Irujo, 2007; Shanahan & Beck, 2006).

Vocabulary knowledge is fundamental for students' reading comprehension. However, "[Vocabulary] is the single most encountered obstacle" for ELs when they must comprehend and learn from texts in school (Jiménez, 1994, cited in Silverman, 2007, p. 368). Similarly, August and Hakuta (1997) asserted that "vocabulary is the primary determinant of reading comprehension" (cited in Silverman, 2007) and Rupley, Logan, and Nicholas (1998/99) referred to vocabulary as "the glue that holds the stories, ideas, and content together and facilitates making comprehension accessible for children" (Cited in Dietrich, 2008, p. 6). Although vocabulary is thus crucial in reading comprehension, children typically receive little or no vocabulary instruction during the primary grades (Biemiller & Boote, 2006; Crevecoeur, 2008; NICHD, 2000). Biemiller and Boote (2006) pointed out that by the end of Grade 2, average EP students know 6,000 root word meanings, whereas students in the lowest quartile know 4,000 root words, and students in the highest quartile know 8,000 words. Also by the end of Grade 2, average students acquire another 1,000 word meanings per year. The researchers explained that a gap of 2,000+/- root word meanings is equivalent to two grade levels, and that such differences persists throughout the elementary school years, leading children with below-grade vocabulary levels to face a "slump" by Grade 4. Although the importance of vocabulary in reading

comprehension is well documented, the NLP found only three research studies of English vocabulary learning, including one that was very brief, in contrast with 45 studies the NRP identified on vocabulary teaching with native English-speakers (Shanahan & Beck, 2006). The three studies reviewed by the NLP are presented in *Appendix A*, Table 22.

These three studies (Carlo et al., 2004; Pérez, 1981; Vaughn-Shavuo, 1990) reviewed by the NLP on vocabulary instruction with ELs showed results consistent with the findings of those with native speakers of English reviewed by the NRP (Shanahan & Beck, 2006): that vocabulary instruction improves reading comprehension. In Vaughn-Shavuo's and Carlo et al.'s studies, students in the treatment groups learned more vocabulary words and improved more on word meanings, respectively, than students in the control groups. In Pérez's study, the treatment group showed improvement in reading comprehension after working on word meanings, a result that corroborated the NRP's findings that vocabulary is a key element in learning to read. However, more research studies need to be conducted to identify effective vocabulary instruction for English language learners (Shanahan & Beck, 2006). Following is a review of selected studies on vocabulary, from 2006 to 2015 (see *Appendix A*, Table 23), which examines whether these later studies support the NLP's 2006 findings on vocabulary instruction and reading comprehension.

Six studies (Biemiller & Boote, 2006; Cena, 2009; Crevecoeur, 2008; Dietrich, 2008; Montgomery, 2007; Silverman, 2007) examined the comparative effect of vocabulary interventions for ELs and EPs in early elementary grades. Silverman's participants consisted of 72 kindergarten students—44 EPs and 28 ELs. She investigated whether a research-based vocabulary intervention implemented across classrooms would help ELs and EPs learn the words at similar rates. Crevecoeur's (2008) purpose was to investigate how ELs and EPs responded to direct vocabulary intervention, whether the intervention effects favored ELs or EPs, and whether

the results of ELs and EPs were comparable. That study reexamined the data from a federally funded 3-year research program (Project VITAL: Vocabulary Instruction Targeting At-risk Learners) designed to develop and evaluate the effectiveness of direct vocabulary instruction for kindergarteners. Participants included 122 K students: 17 ELs and 25 EPs in the treatment group, and 31 ELs and 49 EPs in the control group. Both studies showed that all the outcome measures favored all the participants in comparison with controls.

Silverman's (2007) intervention was based on storybook read-alouds three days per week for about 30 to 45 minutes each day. The curriculum included 12 books, with one book read each week. Targeted vocabulary instruction focused on 5 to 10 words each week. At pretest, EPs scored 10 points higher than ELs on all initial vocabulary measures, a significant difference that may have been due to limited oral language proficiency among the EL participants. After intervention, both EPs and ELs showed significant gains on knowledge of target words from pretest to posttest on the Researcher Vocabulary Assessment (RVA). However, there were no significant differences between the two groups at both posttest and follow-up, indicating that as an effect of the intervention, ELs were catching up to their EP peers. On the picture vocabulary subtest, ELs' knowledge of target words grew faster than that of EPs. Silverman found, in other words, that with vocabulary instruction, ELs learn words as fast as, or faster than, EPs. At the end of the treatment, ELs knew 19 words more than at pretest, while EPs knew 14 more words. On an oral vocabulary test, ELs could provide definitions for 21 more words than they could at pretest, whereas EPs were able to give the definitions of 17 more words. Although EPs knew more target words than ELs before the intervention, there was no difference in knowledge of target words between the two groups after the intervention. The author concluded, "If teaching

methods are appropriate for ELLs, they can learn what is explicitly taught as easily as [EPs]" (p. 378).

Conversely, Crevecoeur (2008) found that although both ELs and EPs benefited from vocabulary intervention, outcome measures indicated that EPs showed a greater benefit from intervention than ELs. In the VITAL program, participants learned 54 target words during 36 half-hour storybook readings and activities throughout the 18-week intervention. The storybooks had high-interest plots as well as rich, engaging language. The interventions incorporated effective vocabulary instruction strategies that supported vocabulary learning within the context of the storybook readings. Students were taught three target words from a story each week and discussed them in post-reading activities. They engaged in activities that supported them in identifying, interacting with, and discussing the target words, using researcher-developed materials such as illustrations and photographs.

Before intervention, EPs had significantly more general receptive vocabulary than ELs: all EPs scored similarly and all ELs scored similarly on pretest PPVT-III, and the difference between EPs' and ELs' scores was statistically significant. Also on pretest, whole-group means for treatment and control groups showed no statistically significant difference. But posttesting showed that EPs in the treatment group showed significant gains when compared with EPs in the control group, as did ELs in the treatment group when compared with ELs in the control group. But the treatment effect size for ELs was smaller than the effect size for EPs. Although both ELs and EPs responded positively to direct vocabulary instruction, this study confirmed that ELs generally begin school with significantly lower vocabulary knowledge in English in comparison with their EP peers, who enter kindergarten with larger English vocabularies and a better understanding of the English language.

Knowing that vocabulary knowledge in English is a primary factor in the disparity between the reading performance of EPs and ELs, Dietrich (2008) also studied the effect of an explicit, systematic vocabulary intervention on the oral language and reading comprehension of Grade 1 ELs. She investigated whether an intervention using Tier 2 words,[7] based on the program *Elements of Reading: Vocabulary*, would improve first-grade ELs' oral language and reading comprehension in relation to those of their EP peers. Her participants consisted of two first-grade classes: a treatment class of 6 ELs and 7 EPS, and a control class of 11 students, 5 ELs and 6 EPs. The intervention took place 20 minutes daily during the literacy block, 5 days per week. The Early Reading Diagnostic Assessment (ERDA) was used to assess participants' oral vocabulary and listening comprehension at pretest and posttest. The ERDA vocabulary pretests indicated that there were no significant differences in scores between the intervention and control groups, nor between ELs and EPs in the intervention class. After intervention, there was a statistically significant difference between the intervention class and the control class (9.23 vs. 1.82), as well as between ELs and EPs in the intervention class (14.28 vs. 3.34). While the control group learned three Tier 2 words weekly through the school read-aloud program, the treatment group learned five Tier 2 words.

The ERDA listening comprehension pretest results showed that, according to the decile-based scores, there was not a statistically significant difference between the intervention and control classes, but the mean decile-based score for ELs in both groups was significantly lower than for EPs. The listening comprehension posttest results revealed a statistically significant

[7] According to the Florida Center for Reading Research (FCRR), Tier 2 words are commonly used in writing and to gain knowledge in reading (Dietrich, 2008).

difference between the intervention and control classes (26.15 vs. 2.73); and although the posttest results scores showed that the mean decile-based score remained lower for ELs than for EPs in the intervention group, the difference was no longer statistically significant.

Biemiller and Boote (2006) conducted two research studies on vocabulary instruction with Kindergarten, Grade 1, and Grade 2 EL students. The purpose of the first study was to examine the effect of pretesting, reading books two or four times, and word explanations on the acquisition of word meanings. Prior research studies used a pretest to determine a baseline for word meaning acquisition, without knowing its effect. In addition, the researchers were interested in comparing learning word meanings with two versus four readings. Lastly, although it is well documented that reading with explanations is more effective, the authors wanted to investigate whether pretesting and more readings was more effective in the no-explanation condition. The authors used a vocabulary test which was designed with a pretest and posttest to assess the effect of word meaning instruction during storybook reading in comparison with repeated readings without instruction.

The participants consisted of 43 Kindergarten, 37 Grade 1, and 32 Grade 2 students. The researchers selected three books for each grade and identified 12 word meanings from each book read twice, and 24 words from the book read four times. They used the total of 36 words with each grade. Of the 24 word meanings tested, 12 of the words were instructed and 12 were not in order to investigate the effect of reading with meaning explanations versus reading without meaning explanations. Results showed gains of 12% in knowledge of word meanings after repeated readings alone; but with word explanations, there was an additional gain of 10%, for a total gain of 22%. Reading books two or four times had different effects in different grades. Kindergarten students showed the most benefits with four readings, whereas by Grade 2 four

readings versus two readings did not seem to produce any benefits. Pretesting did not have any effect on the acquisition of word meanings at the posttest.

In Study 2, Biemiller and Boote (2006) tested more intensive word instruction, retention of word meanings, and the transfer of learned word meanings to new contexts. This study took place at the same school, the year following Study 1. The participants consisted of 28 students in kindergarten, 37 in Grade 1, and 42 in Grade 2. The authors followed the same approach as in the previous study in selecting books, and also used some of the same books (which were new to these participants). Two books were read at each grade level. The participants were exposed to many more word meanings than in Study 1, and words that 85% of students knew at pretest were eliminated from instruction. The intervention of Study 2 consisted of an increase in word meanings taught each day, using vocabulary reviews of the word meanings students learned in each story, and the addition of a final review with new context sentences. Students were given a posttest 2 weeks after the intervention to assess the effect of changes in instruction on acquisition of word meanings, and a delayed posttest after 6 weeks to examine retention of word meanings. The results showed a significant gain of 35% in knowledge of word meanings between pretest and immediate posttest. Interestingly, there was an interaction between grade and pretest-posttest scores. Children in Grade 1 made larger gains (42%) than children in kindergarten (32%) or Grade 2 (30%). The researchers found additional gains of 6% between posttest and delayed posttest, indicating that children continued acquiring vocabulary for 4 weeks without further instruction.

In comparing Study 1 with Study 2, the authors pointed out that whereas in Study 1, there was a pretest-posttest gain of 13% for repeated reading alone, as opposed to 22% for repeated reading with word explanations, or 10% above simple repeated reading, in Study 2 (in which all

students received word explanations), there was a gain of 41%, of which 28% reflected an instruction gain over the 13% no-instruction treatment in Study 1. Based on these two studies, it is reasonable to conclude that students can acquire vocabulary from repeated oral readings with word meaning explanations. In addition, students did not lose the learned word meanings 4 weeks after the posttest but, on the contrary, made further gains. Also, students showed that they could understand word meanings in new contexts different from those of the stories used in instruction.

Cena (2009) also investigated the impact of vocabulary instruction, using Vocabulary Enhanced Systematic and Explicit Teaching Routines (VE SETR) on the with 50 Grade 1 students who attended a Spanish literacy program. The participants included two groups of elementary students in two schools who attended an "early exit" Spanish language arts program. These students were learning to read in their native languages for 2-3 years before they were transitioned to reading in English.

Students at each school were randomly assigned to either a treatment group (VE SETR) or a control group (SETR only). Each group received 90-minute daily instruction. The VE SETR treatment group received 75 minutes of core reading instruction based on the McGraw-Hill reading curriculum, *Tesoros*, with systematic and explicit teaching routines (SETR) that targeted phonics, phonemic awareness, fluency, vocabulary, and comprehension, as well as 15 minutes of VE SETR instruction in small groups. The SETR-only comparison group received 90 minutes of core reading instruction curriculum, *Tesoros*, with the SETRs only and without the 15 minutes dedicated to vocabulary instruction. The students in the VE SETR treatment group learned 32 vocabulary words from the core curriculum program, *Tesoros*. Other vocabulary words from the curriculum were added according to the following criteria: unknown words, unfamiliar words

that students needed to know to understand text, and words that students needed to know in other content areas. Students learned four vocabulary words a week, one a day, with one day for review. The following measures were administered at the beginning of the study (pretest) and at the end of the study (posttest): (a) TVIP: Test *de Vocabulario en Imagenes* Peabody-III; (b) vocabulary subtests from the Bilingual Verbal Ability Test (BVAT); (c) the vocabulary depth of knowledge (DOK) assessment; and (d) IDEL oral reading fluency. These measures were given 9 weeks apart during the study to assess the growth and effectiveness of the two approaches in ELs' instruction.

The results of the study indicated that there was no connection between vocabulary instruction and comprehension, since the VE SERT group showed a slight negative effect on reading fluency in relation to the control group. The author affirmed that this 8-week study did not provide sufficient time for the vocabulary intervention to have an impact on oral reading fluency and comprehension. Cena concluded, first, that the VE SERT intervention had a statistically significant effect on vocabulary growth on only one of the four measures, the Depth of Vocabulary Knowledge; second, that the BVAT results in English supported Cummins's theory of interdependence. Cena stated, "Although the results can't be directly attributed to the VE SERT intervention, results support the literature and suggest that as students acquire vocabulary in their first language, they build a foundation to support vocabulary development in their second language" (Cena 2009, p. 77). Finally, the VE SERT study supported that explicit and systematic vocabulary instruction increases vocabulary growth.

Montgomery (2007) analyzed archival data from 2005-2006 school year to examine the relationship between vocabulary knowledge and reading achievement in fifth-grade students. The data was based on 14,724 Grade 5 students, of whom 46% were ELs. The assessment

measures included specific subtests from the Stanford Achievement Test, Tenth Edition (SAT 10). The Reading Vocabulary, Reading Comprehension, and Science subtests of the SAT10 were used to measure vocabulary knowledge, reading achievement, and science achievement, respectively. Analysis found a statistically significant relationship. She stated, "Based on the tested model, reading vocabulary carries the most weight in predicting reading achievement" (p. 66). The results also revealed that EL status had a negative effect on reading achievement. The author reported that there was a deficit of 3.969 points in reading comprehension for students who were classified as ELs, which was consistent with prior research findings that revealed an achievement gap between EPs and ELs. In addition, Montgomery found a statistically significant relationship between vocabulary knowledge and the science achievement of fifth-grade students. She pointed out that a 1-point gain in the reading vocabulary score corresponded to a .321-point gain in the SAT10 science score, and a 1-point gain in reading comprehension corresponded to a .429-point gain in SAT10 science score.

This review of literature on vocabulary supports prior research findings that vocabulary knowledge is fundamental to reading comprehension and, moreover, has further implications for students' academic success. Vocabulary knowledge is a major determinant in the disparity between the reading performance of ELs in English (L2) and that of native English-speaking children (EPs). As they enter school, ELs have limited vocabulary knowledge in comparison with EPs, due to their lack of oral exposure to English language words (Shanahan & Beck, 2006). The gap between students with large vocabulary and those with limited vocabulary leads to differences in academic success (Crevecoeur, 2008). This gap will become progressively wider throughout a student's schooling if it is not addressed at an early stage, because vocabulary knowledge is strongly related to reading comprehension, which is fundamental to accessing

academic content (Crevecoeur, 2008; Dietrich, 2008; Montgomery, 2007; NICHD, 2000; Shanahan & Beck, 2006; Silverman, 2007).

In reviewing the literature, I found that with the appropriate instruction, ELs can acquire vocabulary at the same rate as, or faster than, their native English-speaking peers (Silverman, 2007). Irujo (2007) stresses that due to ELs' limited vocabulary knowledge in relation to that of EPs, the same instruction for both groups will not produce the same outcomes. ELs need more vocabulary instruction "that should revolve around vocabulary acquisition-explaining, demonstrating, drawing, repeating, reading, writing, and playing with words throughout every aspect of instruction" (p. 5). Irujo pointed out that ELs require instruction in different vocabulary words, through different teaching techniques and strategies, than their English-proficient peers.

Reading Comprehension (Element 6)

Reading comprehension is not only an essential element in reading, but it is also an essential in learning (NICHD, 2000). Although reading comprehension is a fundamental skill in achieving academic success, the NRP pointed out that only in the last three decades has comprehension received scientific attention. Beginning in the 1970s, researchers began to focus on whether readers were aware of what they did not understand in the text and what they did to solve a failure of understanding. Hence, it was the discovery of comprehension failure that led to the identification of strategies that readers could use to improve their comprehension (NICHD, 2000). Currently, reading comprehension is viewed as a process in which the reader interacts with the text to construct meaning. It consists of lower-level processes, such as word identification, and higher-level cognitive processes, such as concept activation, activation to prior knowledge, and comprehension monitoring (Dressler & Kamil, 2006). Although recent

research studies suggest that ELs at the elementary level achieve proficiency in word reading tasks comparable to that of their native English-speaking peers, they perform below average on measures of reading comprehension (Kieffer & Lesaux, 2008). However, despite the importance of reading comprehension in students' literacy achievement and academic success, the NLP only found three studies on teaching reading comprehension to ELs, in contrast to 205 studies of reading comprehension with native English speakers reviewed by the NRP (Shanahan & Beck, 2006). The three studies reviewed by the NLP are presented in *Appendix A*, Table 24.

These three studies of ELs (Bean, 1988; Shames, 1988; Swicegood 1990) yielded results that differed from those of similar studies with EPs reviewed by the NRP (Shanahan & Beck, 2006). For example, according to Shanahan and Beck (2006), Swicegood's (1990) study indicated that after 6 weeks of instruction, EL students trained to ask themselves questions during reading did not show any significant gains in comprehension: they did not transfer the questioning strategy to English, nor did they use it in Spanish reading. This finding contradicted results from similar studies with English-proficient students which showed that the strategy of self-questioning during reading improved reading comprehension.

Shanahan and Beck (2006) also reported that in Shames's (1988) study, results showed that two treatment groups taught to use comprehension strategies, such as Know-Want to Know-Learned [KWL] and Question-Answer Relationships [QAR] performed better than the control group. Although the treatment groups that used comprehension strategies outperformed the control group, while the composition-translation group did not, these differences were not significant. This finding also differed from results of similar studies with English-proficient students.

Shanahan and Beck (2006) also identified a major limitation in the third study reviewed by the NLP (Bean, 1982), given that it only included a single text, and the alterations resulted in significant changes in readability. The original version was at third-grade level. However, after the adaptations, it became a fifth-grade level in the story grammar revision. Shanahan and Beck (2006) pointed out that although Bean's study improved comprehension, it might not be beneficial for these students to always use these texts. They wrote, "Learning to comprehend encompasses learning how to make sense of different sorts of difficult texts, and this study implies that readability and comprehensibility are not necessarily synonymous" (p. 433). Although Bean's study shows us that the complexity of a test might be too difficult for ELs, it does not determine whether it would be better for these students to use less readable but more comprehensible texts or the combination of the two. In other words, this study does not offer a specific recommendation on how to address the different readability and comprehensibility demands of texts for ELs (Shanahan & Beck 2006).

In addition to the paucity of research on reading comprehension for ELs, the NLP found that the studies conducted on reading comprehension for ELs did not yield the same results as similar studies reviewed by the NRP on English-proficient speakers (Shanahan & Beck, 2006). Following, I review selected studies on reading comprehension from 2006 to 2015 in order to examine whether these studies support the NLP findings. (See Appendix A*,* Table 25).

Four studies (Handyside, 2007; Kieffer & Lesaux, 2008; Logan, 2010; Yoro, 2007) examined the effect of reading comprehension strategies on ELs in elementary Grades 2 to 5, and one study (McKeown & Gentlucci, 2007) addressed middle school ELs. While Kieffer and Lesaux, and Logan, examined the influence of morphological awareness on reading skills, McKeown and Gentilucci, and Handyside investigated how metacognitive training affects ELs'

reading comprehension. Yoro examined the strength of three independent variables: oral English proficiency, oral reading fluency, and academic vocabulary knowledge, as predictors of reading comprehension for ELs.

Yoro (2007) argued that because recent research has shown a strong correlation between oral reading fluency, measured in words correct per minute (WCPM), and reading comprehension among EPs, assessments of WCPM have been an important part of the Reading First Achievement Index (RFAI), which determines whether a school qualifies for continued Reading First funding[8]. As a result, teachers and administrators in Reading First schools put great effort into achieving grade-level WCPM scores for all students, including ELs, regardless of whether this is the best approach for this student population. In addition, an important characteristic of the Reading First Program in California is implementation of one of the two reading curricula selected by this state. Both programs focus on instruction in the five essential elements in learning to read stressed by the NRP (phonemic awareness, phonics, reading fluency, vocabulary, and reading comprehension). However, schools implementing the Reading First Grant and, consequently, focusing on literacy instruction grounded in the NRP's research findings, may not be addressing all students' needs, such as oral language instruction, a critical element in the reading instruction of ELs (August & Shanahan, 2006). Yoro stressed that

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[8] Reading First Grants first became available as a means for compliance with NCLB mandates in implementing research-based reading instruction. Many states, such as California, requested funding through Reading First Grants. The purpose of this funding was to help states and local school districts establish high-quality reading instruction from kindergarten through third-grade in low-performing schools (Yoro, 2007).

although there is a high number of ELs in kindergarten through third-grade classrooms in California, none of the studies reviewed by the NRP was specific to ELs.

With the goal of informing instructional practices designed to promote reading comprehension for ELs, Yoro (2007) examined 1,376 Grade 3 Latino students' test scores on six assessments. She used a path analysis to estimate the magnitude and significance of the relationship among (a) oral English language proficiency (scores for listening comprehension); (b) oral reading fluency (scores for WCPM); and (c) academic vocabulary knowledge (scores for word analysis and vocabulary skills) and reading comprehension proficiency (scores for three standardized measures of reading comprehension proficiency). Yoro noted the large body of research that reveals the strong relationship between oral reading fluency and reading comprehension, pointing out that this connection remains a topic of discussion, for there is also much research that claims that fluency derives from comprehension proficiency. The author observed that according to the comprehension-influences-fluency theory, failure to understand the context of a text may compromise fluency even if students have good decoding skills. As a result, students may attain grade-level proficiency in reading WCPM but still lack the semantic, lexical, and syntactical knowledge required to understand grade-level texts. In other words, reading with fluency is not only decoding skillfully, but also consists of reading accurately and quickly with prosody, which includes intonation and expression. She emphasized the need for more research to determine the most effective reading fluency instruction and assessment for ELs. On the other hand, the author explained that while some researchers have stressed that oral reading fluency is the link to reading comprehension, others have argued that students are not able to make the transition from decoding skills to comprehension of a text that includes words that are not part of their vocabulary.

Although researchers have concluded that oral language proficiency is fundamental in reading comprehension, Yoro (2007) asserted that there is much contention on the role of oral language proficiency in the reading acquisition process. She stated:

> The three views on the role of oral English proficiency in the reading acquisition process of English language learners describe oral English proficiency as (a) a skill that can be developed in tandem with reading comprehension, (b) a skill that is essential before students can read with comprehension, and (c) a skill that is facilitated by learning how to decode. (p. 17)

Although there is not a consensus on the role of oral English proficiency in second-language literacy acquisition, there is agreement among researchers that oral English proficiency plays an important role in ELs' reading comprehension proficiency. Conversely to the different views regarding how oral reading fluency and oral English proficiency influence ELs' reading comprehension, it is well established through research that vocabulary knowledge is strongly correlated with reading comprehension. Like other researchers, Yoro pointed out that research has shown that many ELs' vocabulary knowledge is more limited than that of their EP peers, and that this limitation contributes significantly to the literacy achievement gap that exists between these two groups of students.

Yoro (2007) reported that academic vocabulary knowledge might be a stronger predictor of ELs' reading comprehension proficiency than oral English language proficiency or oral reading fluency measured by WCPM. In addition, although the results across the analysis were mixed for oral language proficiency and oral reading fluency, based on scores for each of the three different measures of reading comprehension, most of the evidence indicated that oral reading fluency might be the weakest predictor of Latino ELs' reading comprehension

proficiency. There was an inconsistency in the results of the predictive power of WCPM assessments on reading comprehension proficiency of Latino ELs. Yoro contends that this inconsistency may challenge the Theory of Automaticity in instructional practices of Latino ELs. In other words, she reports that the WCPM scores did not show as strong a correlation to reading comprehension for Latino students as they did for EPs. Yoro concluded that this finding provides evidence that implementing the First Reading component, WCPM, to drive instructional practices has not had the same benefits for ELs as for EPs.

Clearly, Yoro's (2007) finding on the weak correlation between oral language fluency and reading comprehension contradicts the results from Wang's (2011) and Allen-De Bower's (2008) studies discussed earlier in the fluency section. Wang (2011) examined the effect of repeated reading instruction on oral fluency and its impact on reading comprehension with 58 Grade 5 English language learners in Taiwan. Wang found that her results indicated a significant increase of 31.41% words read per minute after the repeated reading intervention. Although the author observed only an increase of 5.41% in scores for reading comprehension, which was marginally significant, a comparison with archival scores showed a positive effect of repeated reading on reading comprehension. In other words, Wang concluded that repeated reading improved oral reading fluency and reading comprehension. In the same vein, Allen-De Bower (2008) conducted a study with three Latino male students who all read at 10th percentile for oral reading fluency. Her intervention was based on a modified *Corrective Reading* program on the oral reading fluency. Participants' fluency scores increased an average of 26%, raising their oral fluency from the 10th to the 25th percentile. Like Wang, Allen-De Bower concluded that an increase of oral reading fluency improved students' Spanish and English passage comprehension.

Yoro's (2007) results also revealed a weak correlation between oral English language proficiency and reading comprehension, which does not support research that claims the predictive power of well-developed oral language skills on reading comprehension. On the other hand, Yoro argued that her results seem to support research suggesting that oral language skills and literacy skills develop concurrently, or that literacy acquisition may precede and support oral language skills. I discuss oral English language proficiency in greater depth below. Finally, Yoro showed that academic vocabulary knowledge showed a consistent and strong correlation to reading comprehension on all three measures. Yoro argued that this finding is consistent with prior research suggesting that while a small percentage of ELs struggle with automatic word reading, many of these students do not understand the meaning of the words they can decode accurately.

Two studies (McKeown & Gentilucci, 2007; Handyside, 2007) examined how metacognitive training affects ELs' reading comprehension. McKeown and Gentilucci defined the role of metacognition in reading as follows: Reading is a covert process actively controlled by readers to create meaning from text, and the practice of readers 'thinking about their thinking' while engaged in the reading process is known as *metacognition*" (p. 136). Handyside (2007) concurred: "The term metacognition from a simplistic point of view, means 'thinking about thinking,' or 'knowing about knowing'…" (p. 32). In addressing the importance of identifying research-based strategies to improve reading comprehension skills of ELs, McKeown and Gentilucci (2007) stated that the Think-Aloud strategy is an effective approach to activate metacognition and, therefore, facilitates comprehension, by helping second language (L2) readers to monitor their understanding of the text. They explained that this strategy is beneficial for ELs because it requires the reader to interact with the text and use "fix-up strategies"

(monitoring) when needed. They pointed out that it is important that ELs, as well as all other students, develop strategic reading skills in order to succeed in English language arts and content area classes.

In their research study, McKeown and Gentilucci (2007) examined how the Think-Aloud Strategy affects content area reading comprehension of middle school ELs. The participants included 27 ELs; 5 students were Early Intermediate (Level 2), 11 were Intermediate (Level 3), and 11 were Early Advanced students (Level 4). The researchers used the High Point Comprehension Assessment as a measure at pre- and posttests to examine whether the Think-Aloud Strategy was an effective intervention in the reading comprehension of these students. The same assessment was already being used in the school's instructional program. The authors decided to include all students in the treatment, rather than use a control group, because they felt time is of great value when trying to recover academic deficits. One of the authors applied the treatment by modeling the Think-Aloud Strategy over a 2-week period, three days a week for 20 to 30 minutes during the 50-minute reading class. The author used a social science text and the novel *The Outsiders* by S.E. Hinton (2007). As she read the novel aloud, she stopped every two or three lines to state what she thought was happening, asked herself questions, made predictions, and modeled to the students how she used meaning-making strategies. During the following two weeks, students applied the Think-Aloud Strategy while the author monitored them.

The Think-Aloud Strategy treatment yielded differing results among the three treatment groups (Level 2, Level 3, and Level 4 readers). For Early Intermediate students (Level 2), the Think-Aloud Strategy did not improve ELs' comprehension of the High Point Comprehension Assessment's expository texts: the pre- and posttest scores were almost identical. Intermediate

students (Level 3) showed some growth in reading comprehension between pre- and posttests, although the difference was not statistically significant. Surprisingly, for Early Advanced students (Level 4), the Think-Aloud strategy had a negative effect on reading comprehension: 8 of the 11 students in this group had lower posttest scores, 2 had higher posttest scores, and 1 scored the same.

McKeown and Gentilucci (2007) concluded that although ELs are able to employ metacognitive strategies, such as think-aloud, the students' language proficiency determines the effectiveness of this strategy. They explained their mixed results as follows: "These heterogeneous outcomes appear to indicate that Early Intermediate English learners may focus on bottom-up processes of phonetic decoding, whereas more proficient readers may use background knowledge and inferencing to understand text" (p. 144). Regarding the findings for the Early Advanced group, which showed that the use of the Think-Aloud Strategy hindered comprehension, the authors explained that the expository genre of the test article required readers to focus on the author's message in order to comprehend it, rather than make personal connections with the text, as the Think-Aloud Strategy prompts them to do. The authors suggested that the strategy may have actually distracted students from focusing on the meaning of the text during reading. This result, they argued, suggests that all strategies that are considered "good teaching" cannot be applied equally to all levels of English learners.

Handyside (2007) taught reading strategies to 33 Spanish-speaking ELs in Grades 4 and 5 who were classified at basic and intermediate levels of English proficiency. The participants were randomly assigned to four treatment groups. Groups 1 and 2 received metacognitive training in English only (monolingual condition), while Groups 3 and 4 received metacognitive training in English and Spanish (bilingual condition). The intervention consisted of explicit,

direct instruction on how to use and monitor reading strategies, using an instructional approach based on the Cognitive Academic Language Learning Approach (CALLA). The purpose of this instructional model is to help students monitor their comprehension by using six reading strategies: previewing, predicting/verifying, drawing from background knowledge, setting a purpose for reading, self-questioning, summarizing, and applying fix-up strategies. This instructional model was applied during 90-minute sessions twice a week for 6 weeks. In addition, students practiced using the CALLA model for 2 weeks following the intervention. Handyside (2007) used the Scholastic Reading Inventory for pre-and posttest measures of reading comprehension; Form A was used as a pre-test and form B as a posttest. As a qualitative measure of strategy awareness, the author used the Metacomprehension Strategy Index (MSI) for pre- and posttests. The MSI questionnaire consisted of 25 items with four choices for each item. One of the choices revealed appropriate metacomprehension strategy awareness. This instrument was not only used to evaluate students' practice of reading strategies but also measured changes in metacognitive awareness over time.

Contrary to the findings in McKeown and Gentilucci's (2007) research study, Handyside's (2007) results showed that after the intervention, participants showed statistically significant gains in metacognitive awareness. Independently of having been assigned to the monolingual or bilingual condition, students identified a greater number of strategies on the MSI. The author reported that after receiving explicit instruction on the six selected reading strategies, participants made substantial gains in metacognitive awareness, and thus in reading comprehension, which continued throughout the intervention. Consequently, all treatment groups, whether in the monolingual or bilingual condition made gains in reading comprehension. A significant finding is that ELs at the earlier stages of language acquisition increased their

reading comprehension scores on the SRI from pre-test to posttest when they received explicit, direct instruction on the six specific reading strategies selected for this study: previewing, predicting/verifying, drawing from background knowledge, setting a purpose for reading, self-questioning and summarizing, and applying fix-up strategies (monitoring). The participants in this study were EL students who, at the earlier stages of language acquisition, benefited from explicit instruction on the use of reading strategies.

Handyside (2007) pointed out that these results were consistent with findings from prior research studies and have important implications for instructional practices. She stated:

> An important contribution for this research study is that English language learners at the elementary school level can raise their awareness of reading strategies becoming self-directed learners who possess metacognitive knowledge. This type of knowledge refers to students' awareness not their actual use. Pintrich (2002) argues that metacognitive knowledge is fundamental for learning success. (p. 95)

Based on the findings from her study, Handyside (2007) also stressed that instruction in reading strategies does not have to be delayed until students have completely mastered the English language. She recommended that along with language development practices, cognitive and metacognitive training should be incorporated in content lessons at the elementary level.

Research has revealed a relationship between morphological awareness and reading comprehension among EPs (Kieffer & Lesaux, 2008). However, little is known about whether this relationship applies to ELs (Kieffer & Lesaux, 2008; Logan, 2010). While Kieffer and Lesaux's study focused on the impact of morphological awareness on only Spanish-speaking ELs, Logan investigated the difference in morphological awareness between ELs and EPs. She also examined the influence of morphological awareness on the broader reading skills of these

two groups. Kieffer and Lesaux (2008) explained that although research has indicated a strong relationship between vocabulary knowledge in the second language and reading comprehension, "these studies often employ a single, global measure of vocabulary and thus do not shed light on the complex multi-dimensional nature of vocabulary development nor the relationship of its various dimensions to reading comprehension" (p. 784). Hence, the focus of their study was on derivational morphological awareness, a dimension of language proficiency related to vocabulary knowledge.

Morphological awareness is the understanding that words are made up of combinations morphemes, the smallest linguistic units of meaning. Morphological awareness gives students the ability to decompose morphologically complex words into their component morphemes or to recognize morphological relationships between words. Derivational morphological awareness, for example, the ability to identify a base word in a derived word that has a different part of speech, such as *popular* and *popularity*, helps a reader to determine the meaning of the new word while reading. Such awareness is an important skill for upper elementary school students in manipulating derived words, recognizing connections between different morphological forms of a word, and making new derivations of known words. Kieffer and Lesaux (2008) stressed that this process of morphological analysis calls for the integration of lexical knowledge of suffixes and root morphemes, in addition to the metalinguistic ability to identify these units and break them apart. This skill enables students to access the meaning of new words they encounter in the text, thus improving comprehension.

In their study, Kieffer and Lesaux set out to examine whether derivational morphological awareness predicts English reading comprehension for Spanish-speaking ELs in upper elementary school, when controlling for vocabulary, phonological awareness, and word reading

abilities. Participants in this study consisted of 87 Spanish-speaking students who were assessed in Grades 4 and 5. All students had begun with literacy instruction in Spanish during kindergarten, and received instruction in both Spanish and English for a portion of each day, with the percentage of English instruction increasing at each higher grade level. By fourth grade students were receiving 80% of their literacy instruction in English and 20% in Spanish, and in fifth grade students were instructed entirely in English in structured English immersion classrooms. Kieffer and Lesaux (2008) used an experimental decomposition task based on those used by Carlisle (2000) and Carlo et al. (2004) to measure students' derivational morphological awareness in English. To measure the reading comprehension of the fourth- and fifth-graders, Kieffer and Lesaux used the Woodcock Language Proficiency Battery-Revised (WLPB-R) Passage Comprehension subtest. They also administered a second reading assessment, Gates-MacGinitie (G-M), to fifth-graders in order to verify findings across two measures of reading comprehension. Control measures included assessments of word reading accuracy, non-word reading accuracy, sight word efficiency, phonological awareness, and breadth of vocabulary knowledge.

Kieffer and Lesaux (2008) obtained two important findings from their investigation. First, derivational morphological awareness impacts the reading comprehension of Spanish-speaking ELs in the upper elementary years of school even when controlling for the influence of word reading skills, vocabulary breadth, and phonological awareness. Second, the relationship between derivational morphological awareness and reading comprehension increased from fourth grade to fifth grade, suggesting that ELs' ability to use morphology to learn new words develops throughout the upper elementary years and, prospectively, middle school. The researchers therefore recommended the inclusion of morphology into instructional practices to

improve reading comprehension for second-language learners, concluding that "students' awareness of words' morphological structure contributes not only to their understanding of individual words but also to their overall success with reading comprehension" (pp. 798-799). Furthermore, they underscored the importance of morphological awareness by stating that it impacts reading comprehension independently from its association with breadth of vocabulary knowledge.

Similarly to Kieffer and Lesaux (2008), Logan (2010) created a stem production task, based on a similar task developed by Carlisle (2000), as a morphological awareness measure referred to as decomposition. Logan's participants included 292 ELs and EPs in Grades 2 and 3. As literacy measures, she used two subtests of the Woodcock Reading Mastery Test-Revised (WRMT-R) to assess word reading; two subtests of the Woodcock Muñoz Language Survey-Revised (WMLS) to assess vocabulary; and the Passage Comprehension subtest of the (WRMT-R) to assess comprehension.

Logan (2010) found that ELs in Grades 2 and 3 had lower mean scores on the decomposition task, as well as on word identification, vocabulary, and reading comprehension, than their EP peers. She also reported that in her analysis of the data, word reading, vocabulary, and morphological awareness had comparable relationships with each other and with reading comprehension for both ELs and EPs. Given that the correlations between these factors were all moderate in size, Logan concluded that their impact on comprehension overlapped. Furthermore, the word reading and vocabulary factors had significant effects on comprehension, with word reading showing the highest total effect (.91 for EPs and .94 for ELs). The author attributed this latter finding to the possibility that early elementary students are still developing decoding and word recognition skills, whereas vocabulary becomes more important for students in later grades.

Although there were effects of morphological awareness on reading comprehension via word reading and vocabulary, the direct relationship between morphological awareness and reading comprehension for these early elementary students was not significant. Notably, this result mirrored Kieffer and Lesaux' s (2008) finding that the relationship between morphological awareness and reading comprehension increased in Grade 5, indicating that ELs' ability to use morphology develops in later years. Logan (2010) concluded from her study that "it does not seem to be the case that ELL students have different kinds of issues with regard to reading comprehension in relation to EP students, but it's a matter of degree" (p. 73). She stated that for this age group, students need to be able read words and understand their meaning in order to develop comprehension.

This review of literature on *reading comprehension* yielded that many skills serve as the underpinnings for the development of reading comprehension, not only for English language learners but also for native English-speaking students. While research suggests that oral language proficiency and oral reading fluency plays an important role in reading comprehension (Allen-DeBoer, 2008; Wang, 2011), there is a robust correlation between vocabulary knowledge and ELs' reading comprehension (Crevecoeur, 2008; Dietrich, 2008; Montgomery, 2007; NICHD, 2000; Shanahan & Beck, 2006; Silverman, 2007; Yoro, 2007). It is well documented that as ELs enter school, they have limited vocabulary knowledge when compared with their native English-speaking peers, due to their lack of oral exposure to English language words (Shanahan & Beck, 2006). Notably, the gap between students with large vocabulary and students with limited vocabulary leads to differences in academic success, because vocabulary is strongly related to reading comprehension (Crevecoeur, 2008). In other words, without comprehension, students are not able to access academic content.

Morphological awareness is also an important construct that is related to vocabulary and, consequently, also impacts students' comprehension (Kieffer & Lesaux, 2008; Logan, 2010). Another significant skill set, which has shown a positive effect on ELs' ability to make meaning from text, is the ability to use research-based reading strategies, such as previewing, predicting/verifying, drawing from background knowledge, setting a purpose for reading, self-questioning and summarizing, and applying fix-up strategies (monitoring). These strategies encourage readers to use metacognition—"to think about their thinking"—while engaged in the reading process. Clearly, many skills factor into students' development of reading comprehension, which is fundamental in academic success. Without comprehension, students are unable to access academic content.

For this review of literature on how second-language students learn to read, I selected the empirical studies that I believed to be most important in the understanding of the elements of reading. Consistent with the NLP findings, my review of the research yielded that phonics, phonemic awareness, oral reading fluency, vocabulary, reading comprehension, and oral English language proficiency are essential elements in the successful reading instruction of English-language learners. Research conducted on phonemic awareness from 2006 to the present continues to reveal a strong correlation between phonemic awareness and learning to read among ELs. It also points out that phonics is a fundamental skill in learning to read. Both conclusions confirm the NLP (2006) findings. Notably, phonemic awareness and phonics are related; there is evidence that it is more effective to include letter-sound associations in teaching phonemic awareness than to focus instruction only on sounds (Shanahan & Beck, 2006). In tandem with the NLP's (2006) study, subsequent research indicates that oral reading fluency plays a major role in learning to read because it is also impacts comprehension. The literature reviewed on

vocabulary confirms the NLP's findings that vocabulary knowledge is fundamental in reading comprehension and has further implications for students' academic success. The acquisition of vocabulary among ELs is critical due to these students' limited exposure to oral English words before they begin learning to read (Irujo, 2007; Shanahan & Beck, 2006).

My review of the research on reading comprehension also confirms the NLP findings that reading comprehension is not only an essential element in literacy, but also in learning. It is a fundamental skill in academic success and, although other skills are precursors to the development of reading comprehension, such as oral language proficiency and oral language fluency, there is a strong association between vocabulary and reading comprehension. My review of the research also indicated the critical role of English oral language proficiency in the English reading achievement of ELs. Consistent with the findings from the NLP, research has revealed a positive but moderate correlation between oral language proficiency and word-level reading skills. However, studies have shown a robust relationship between English oral language proficiency and text-level reading skills, such as reading comprehension. For example, ELs who enter kindergarten with proficient English oral language skills reach levels of English reading achievement equivalent to those of their native-English speaking peers. Conversely, ELs who enter kindergarten with limited English oral language proficiency have significantly lower reading achievement, lagging behind their native English-speaking peers (Kieffer, 2008) in academic achievement.

In the next section, I review the literature on Universal Design for Learning (UDL).

Universal Design (UD)

Universal Design originated in the field of architecture in the 1970s (Edyburn, 2006; Hall, Meyer, & Rose, 2012; King-Sears, 2009; Meyer & Rose, 2000; Ralabate, 2011), when the

U.S. Federal Government required that buildings provide access to individuals with disabilities. Ron Mace (1998), an architect with disabilities, advocated that buildings be designed from the beginning to meet the needs of the largest range of users, rather than adapting them at a later time to accommodate people with disabilities. His goal was to make buildings and physical spaces accessible to all users from the outset (Dalton & Proctor, 2007; King-Sears, 2009). For example, while features like ramps provide accessibility to many people with individual needs, they are accommodations used by all of us; the same can be said for other UD applications, like closed captions on television (Dalton & Proctor, 2007; Rose & Gravel, 2010). UD principles provide that "access to all is incorporated into the design from the very beginning" (Lopes-Murphy, 2012, p. 226).

Universal Design for Learning (UDL)

With the aim of applying UD principles to education, David Rose, a neuropsychologist and educator, and Anne Meyer, a psychologist whose work focuses on aspects of learning and learning disabilities, together with their colleagues at the Center for Applied Special Technology (CAST), coined the term Universal Design for Learning (UDL) (Edyburn, 2006). UDL is an educational framework based on neuroscience research about how the brain learns. Its essence is to offer curriculum and instruction that are accessible to all students from the outset by anticipating and removing barriers to learning (see Figure 5). CAST (2018) defines the UDL Curriculum and its purpose as the following:

> The purpose of UDL curricula is not simply to help students master a specific body of knowledge or a specific set of skills, but to help them master learning itself—in short, to become expert learners. Expert learners have developed three broad characteristics. They are: a) strategic, skillful and goal-directed, b) knowledgeable, and c) purposeful and

motivated to learn more. Designing curricula using UDL allows teachers to remove potential barriers that could prevent learners from meeting this important goal.

In addition, the UDL Curriculum includes four interrelated components: assessments, goals, methods, and materials (see Figure 3). CAST (2018) explains the differences between traditional and UDL definitions of each component as follows:

> **Assessment** is described as the process of gathering information about a learner's performance using a variety of methods and materials in order to determine learners' knowledge, skills, and motivation for the purpose of making informed educational decisions. Within the UDL framework, the goal is to improve the accuracy and timeliness of assessments, and to ensure that they are comprehensive and articulate enough to guide instruction – for all learners. This is achieved in part by keen focus on the goal, as distinct from the means, enabling the provision of supports and scaffolds for construct irrelevant items. By broadening means to accommodate learner variability, UDL assessments reduce or remove barriers to accurate measurement of learner knowledge, skills, and engagement.
>
> **Goals** are often described as learning expectations. They represent the knowledge, concepts, and skills all students should master, and are generally aligned to standards. Within the UDL framework, goals themselves are articulated in a way that acknowledges learner variability and differentiates goals from means. These qualities enable teachers of UDL curricula to offer more options and alternatives—varied pathways, tools, strategies, and scaffolds for reaching mastery. Whereas traditional curricula focus on content or performance goals, a UDL curriculum focuses on developing "expert learners." This sets higher expectations, reachable by every learner.

Methods are generally defined as the instructional decisions, approaches, procedures, or routines that expert teachers use to accelerate or enhance learning. Expert teachers apply evidence-based methods and differentiate those methods according to the goal of instruction. UDL curricula facilitate further differentiation of methods, based on learner variability in the context of the task, learner's social/emotional resources, and the classroom climate. Flexible and varied, UDL methods are adjusted based on continual monitoring of learner progress.

Materials are usually seen as the media used to present learning content and what the learner uses to demonstrate knowledge. Within the UDL framework, the hallmark of materials is their variability and flexibility. For conveying conceptual knowledge, UDL materials offer multiple media and embedded, just-in-time supports such as hyperlinked glossaries, background information, and on-screen coaching. For strategic learning and expression of knowledge, UDL materials offer tools and supports needed to access, analyze, organize, synthesize, and demonstrate understanding in varied ways. For engaging with learning, UDL materials offer alternative pathways to success including choice of content where appropriate, varied levels of support and challenge, and options for recruiting and sustaining interest and motivation. See (http://www.udlcenter.org/aboutudl/udlcurriculum)

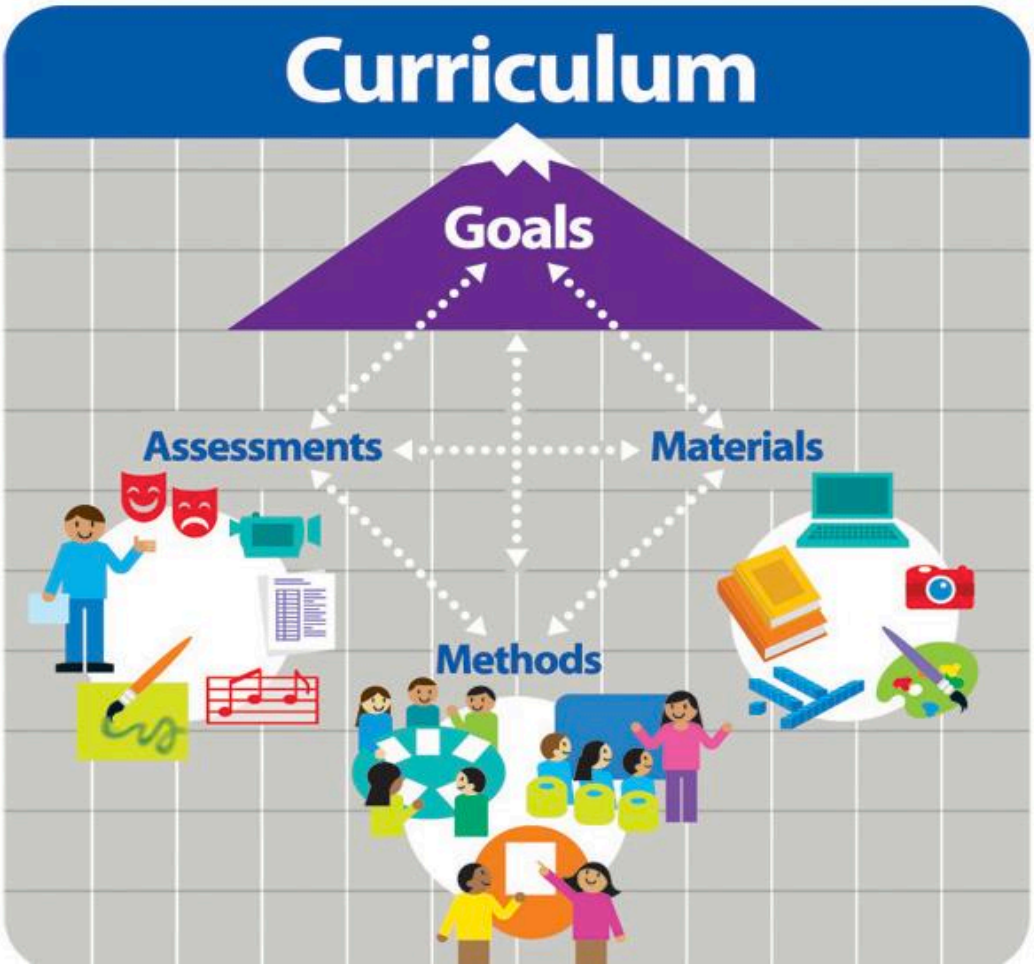

Figure 3. Components of Curriculum as Defined by CAST.
Source: Chris Vallo (2013) www.CAST.org (Meyer, Rose, & Gordon, 2014, p. 129) Permission to use has been requested.

In Rose and Gravel's (2010) words, "UDL is the process by which we attempt to ensure that the means for learning, and their results, are equally accessible to all students" (p. 2). At CAST, the researchers oppose a "one-size-fits-all" curriculum that is traditionally delivered the same way to all students, regardless of their diversity in physical and mental ability. The implementation of malleable curricula and the design of instructional practices that address the needs of the large student diversity are a cornerstone of CAST's work (Dalton & Proctor, 2007; Edyburn, 2006; Hall et al., 2012; Rose & Gravel, 2010). UDL's principles were developed based on the three brain networks (see Figure 4).

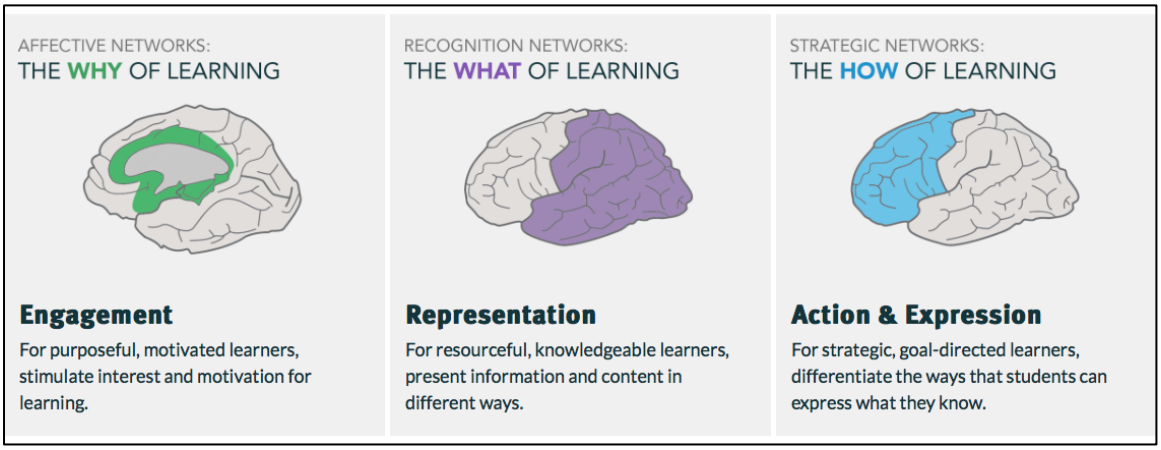

Figure 4. The three UDL principles that parallel the three brain networks responsible for learning. From http://www.cast.org/udl/

In Universal Design for Learning in the Classroom, Hall et al. (2012) assert:

> The principles of UDL enable us to recognize that variance across individuals is the *norm*, not the exception, wherever people are gathered. Therefore, the curriculum should be adaptable to individual differences rather than the other way around. In this sense, traditional curricula have the 'disability,' because they only work for certain learners. (p. 4).

Opposing the traditional view, researchers at CAST argue that it is the curriculum that is "disabled," not the students (Edyburn, 2006; Hall et al., 2012).

UDL addresses students' variability by creating learning opportunities that are based on three principles that inform practice by providing *Multiple Means of Engagement, Multiple Means of Representation, and Multiple Means of Action and Expression* (Meyer et al., 2014; Rose & Meyer, 2002). See Figure 5. These approaches parallel, respectively, the three brain networks: affective, recognition, and strategic (see Figure 4), which are responsible for learning (Hall et al., 2012).

Figure 5. The principles of UDL that inform instructional practice.

Based on the three principles, guidelines have been created as a world map for instruction (see Figure 6).

Although UDL can be implemented in low-tech ways (see Rose, Gravel, & Domings, as cited in T.E., Hall, A. Meyer, & D.H. Rose, 2012), the use of new technology enhances these instructional environments (Basham, Israel, Graden, Poth & Winston, 2010). Today's digital media, such as digital text, digital images, digital audio, and digital videos are readily transformable, as opposed to traditional print-based media, which are fixed (Dalton, Pisha, Eagleton, Coyne, & Deysher, 2002; Meyer & Rose, 2005; Rose, Hasselbring, Stahl, & Zabala, 2005). For example, the flexibility of changing media, such as text-to-speech and speech-to-text, among others, provide multiple means of representation, which can address different learning needs. Meyer and Rose (2005) explained the importance of new technology in developing educational designs, but, more importantly, how technology plays a major role in informing what learning is. The authors asserted:

> The result of new technologies will be a re-centering of the core agenda of schools on learning instead of content. This will be fostered by advances in our understanding of what learning is, how diversified it is, and which methods—such as Universal Design for Learning—are articulated and flexible enough to meet the diverse learning needs of all the students. (p. 6)

In other words, with the advancement of new technologies, there is a shift in educational goals. The goal is no longer just to master the content because it is so readily accessible, but rather, to

learn how to learn and, in the process, become an "expert learner" (Meyer & Rose, 2005; Meyer et al., 2014). Expert learners know how to learn and are involved in their own learning by setting goals and identifying and using adequate strategies to achieve them.

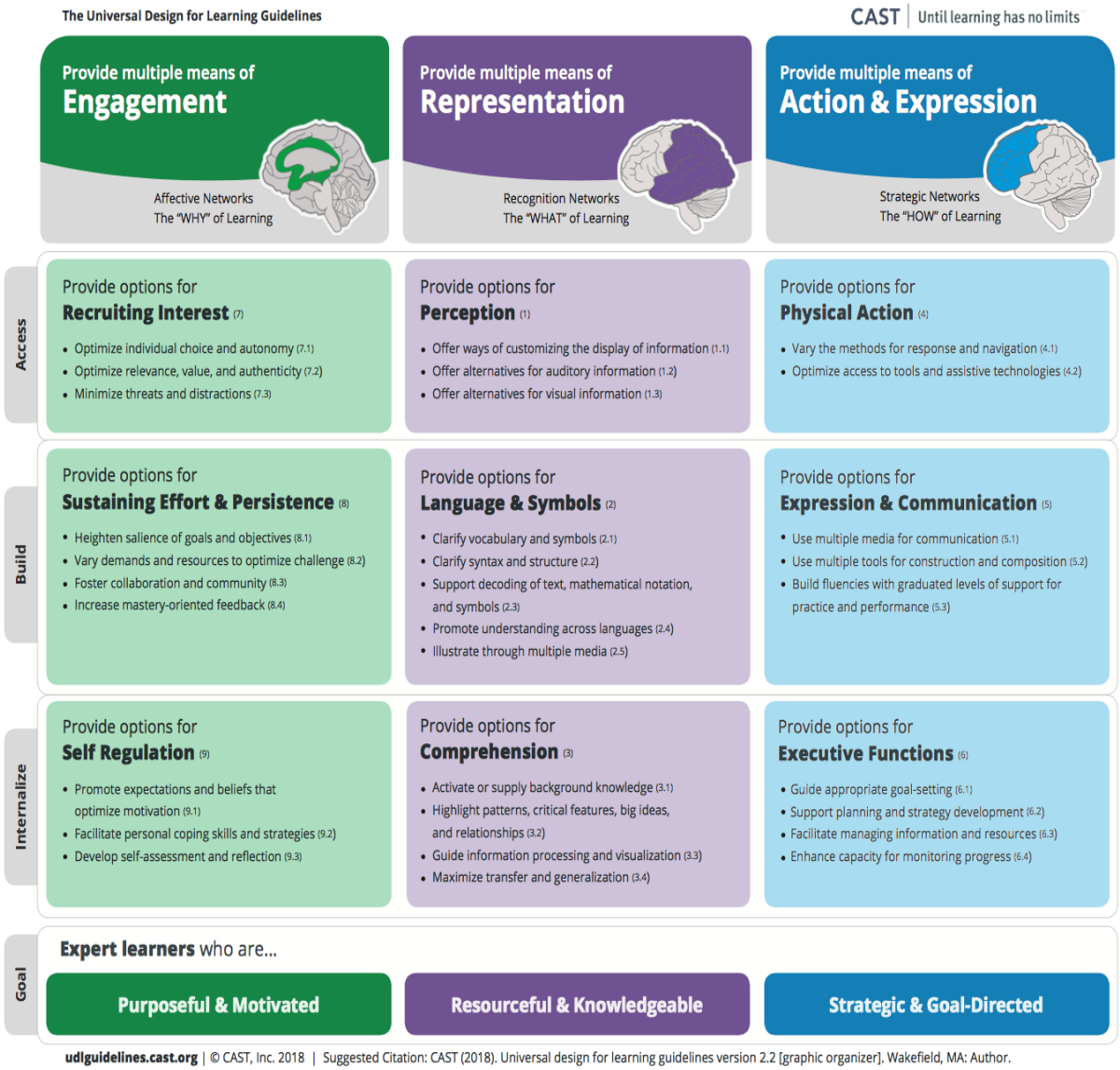

Figure 6. UDL Guidelines Graphic Organizer.
Provides options for instruction according to the three UDL principles. From *http://www.udlcenter.org/aboutudl/udlguidelines/udlguidelines_graphicorganizer* Permission to use has been requested.

UDL as an Interdisciplinary Research-Based Framework

Interdisciplinarity is the coming together of two or more disciplines. Nissani (1997) brought forth the importance of interdisciplinary knowledge and research for the good of society. He argued that creation comes from bringing unrelated ideas together and that "in academic discourse, interdisciplinarity typically applies to four realms: knowledge, research, education, and theory" (p. 203). It is in the context of interdisciplinarity that the UDL framework has taken shape. Rappolt-Schlichtmann, Daley, and Rose (2012) asserted that the core concepts of UDL are informed by the learning sciences and education practice, and that its framework is dynamic insofar as it addresses the newest ideas from research and practice: "From a UDL perspective, learning is contextual, social, emotional, dynamic, and variable" (p. 12). They explain how these core concepts inform the UDL framework, although they are not directly stated in the guidelines. Rappolt-Schlichtmann et al.'s survey of the UDL research field (2012) includes classic and contemporary essays by prominent authors in the field of education, such as Dewey, Gardner, and Storbeck and Clore.

One of the theoretical foundations of the UDL framework draws from the American philosopher and educator John Dewey's argument that learning is social and contextual. Rappolt-Schlichtmann et al. (2012) identified Dewey's classic essay, "The Child and Curriculum" (2012), as instrumental to understanding the social nature of learning. Dewey pointed out that in order for content to resonate with the child, it has to connect with the child's prior experiences—with what she loved outside of the classroom. In this way, subject matter is an extension of the child's present knowledge and activities, which will motivate her to engage in learning. Conversely, if subject matter is merely an external presentation of facts known by others that must be acquired

by the child, who has not experienced them, she will show lack of interest in learning it (Rappolt-Schlichtmann et al., 2012).

In addition, Dewey also pointed out the importance of the teacher in the classroom, making a distinction between the role of the scientist and that of the teacher in relation to subject matter. He argued that while the scientist looks at subject matter as a self-contained body of facts and deepens his knowledge through conducting more research, the teacher must find ways in which subject matter becomes part of an experience for the child. The teacher's knowledge of the subject matter will help to determine the child's needs and, consequently, the medium that should be used in order to foster a learning experience. Dewey referred to this process of taking the material and making it accessible to the child as "psychologiz[ing] it." He stated, "The legitimate way out is to transform the material; to psychologize it—that is, once more to take it and develop it within the range of scope of the child's life" (Rappolt-Schlichtmann et al., 2012). The UDL framework reflects this educational concept as it calls for interactions among teachers, students, and the curriculum in order to promote learning:

> Human learning is not machine learning; children are not storage containers that can be programmed to rationally manipulate and process data. Instead, learning thrives (or fails to thrive) within deep and meaningful interactions—interactions between people and their environment. The so-called "problems" encountered by learners are not, therefore, inherent to the individual child but often created by the form that the content takes and other contextual factors. (Rappolt-Schlichtmann et al., 2012, p.17).

Reflecting on Dewey's work, Jeremy Roschelle, the director of the Center for Technology in Learning at SRI International, who has worked with CAST, asserted that Dewey's

educational philosophy is to prepare students to be inquirers who have the ability to work with others in order to resolve very challenging problems in life (Rappolt-Schlichtmann et al., 2012).

In the same vein, Howard Gardner, a renowned developmental psychologist best known for his theory of multiple intelligences, has promoted the notion of education for understanding. Rappolt-Schlichtmann et al. (2012) quote Gardner's essay, "The Unschooled Mind: Why Even the Best Students in the Best Schools May Not Understand" (2012), wherein the author used examples of different life situations to illustrate how the best students who attend the best schools often learn topics without fully understanding them. Gardner defined understanding "as the capacity to take knowledge, skills, concepts, facts learned in one context, usually the school context, and use that knowledge in a new context, in a place where you haven't been forewarned to make use of that knowledge" (Rappolt-Schlichtmann et al., 2012, p. 43). Gardner claimed that schools have failed to educate for understanding because they do not provide context-learning situations in which students try new things and understand why they do things, in this way, constructing their learning. Gardner (2012) advanced two ideas, the apprenticeship and the children's museum, as institutions that provide hands-on opportunities for students. In the case of apprenticeship, the author explained, a young person works for someone who is the master of his discipline and uses his knowledge of it to solve everyday problems; the master requires the apprentice to collaborate and produce work at his level of competence, raising the standards as the apprentice becomes more knowledgeable. In the case of the museums, Gardner believed that these are places where children can explore and deepen ideas and concepts that they learn in school (Rappolt-Schlichtmann et al., 2012)

Gardner's view of education for understanding, in which students construct their learning in a meaningful context under the guide of an educator, is consistent with Piaget's constructivist

theory (Glasersfeld, 1982). And like Dewey, Gardner stressed the importance of the interaction between teachers, students, and context in the learning process—a core concept of UDL. Rappolt-Schlichtmann et al. (2012) drew a parallel between Gardner's theory and UDL:

> Gardner's insight into the balance between learners actively and somewhat freely developing their own understandings and educators purposefully guiding or limiting the bounds of this exploration in many ways elucidates how UDL defines the interaction among teaching, learning, and the environment in an inherently bidirectional (transactional), mutually supportive and constructive manner (p. 38).

In his discussion of constructivism, Gardner pointed out that because students learn in different ways, teachers must present concepts in multiple ways. This reasoning supports one of UDL's three principles—*Multiple Means of Representation*. In his multiple-methods instructional approach, Gardner called for clear goals that direct learning experiences, and effective assessments that evaluate the learner's ability to apply his/her skills and knowledge in new situations (Rappolt-Schlichtmann et al., 2012).

Another important research-based concept that underlies the UDL framework is that learning is both emotional and cognitive. Rappolt-Schlichtmann et al. (2012) referenced the essay, "On the Interdependence of Cognition and Emotion," in which Storbeck and Clore (2012) showed through experiments that emotion and cognition are interrelated; positive mood enhances cognition whereas negative mood restricts cognition. According to the authors, emotion and cognition are processed in the same brain area. Although it is clear that the concept of interdependence between emotion and cognition is reflected in the UDL principle *Multiple Means of Engagement*, Rappolt-Schlichtmann et al. (2012) pointed out that the connection between emotion and cognition in learning and thinking is fundamental to the UDL framework.

Immordino-Yang, a neuroscientist and human development psychologist who has done extensive work with CAST regarding the UDL framework, has conducted extensive research on the interdependence between emotion and cognition in learning, and pointed to its implications in the design of educational environments. Immordino-Yang and Faeth (2010) described a neuroscience study done with normal and brain-damaged patients, using the Iowa Gambling Task (IGT) in order to understand the role of emotion in cognition and learning. In the experiment, the participant takes cards from four different decks, and with each card, she has the opportunity to win money. Some decks are made up of cards with larger wins than other decks, but they also have cards with large losses, making them risky and, therefore, not a good choice.

The authors reported that early on, the normal participant develops an emotional response, including sweating palms, before taking a card from the high-risk deck. Unconsciously, the participant is acquiring emotional information about the threat of selecting cards from the high-risk decks. This emotional information, which the authors refer to as an "emotional rudder," will guide her to stay away from the risky decks, which offer high gains but also large losses, and to take cards from the other decks. Later in the game, the participant is able to describe the rule about which decks to play and which decks to avoid, revealing that she has learned. In this experiment, the researchers stressed the importance of the emotional rudder in teaching the participant about the decks and guiding her to overcome the temptation of selecting cards from the risky decks.

Immordino-Yang and Faeth (2010) argued that the emotional rudder is not only important in playing the IGT, but also plays a significant role in other contexts, such as school. Although emotions have often been considered disruptive to learning, and students are encouraged to put emotions aside, emotions relevant to the task at hand are integral in the learning process

(Immordino-Yang & Faeth, 2010). Referring to the same case of the IGT experiment, the authors posited that if the participant were overexcited about an upcoming event and could not concentrate on the task, she may not have learned the rule about the decks, because she would still be excited independently from the deck she chose or the result she obtained. Her emotional intuition would not be activated and, as a result, she would not emotionally experience the decks differently, failing to learn the game.

Similarly, the authors discussed the performance of a neurological patient who also participated in the IGT paradigm. This patient had suffered brain damage to an area located above the eyes—the ventromedial prefrontal cortex, which connects body feelings during emotion with the learning of cognitive strategies (Immordino-Yang & Faeth, 2010). The participant began by selecting cards from the four different decks. However, she did not develop an emotional response that would inform her about the high-risk decks and, therefore, guide her future choices. According to the researchers, although the ventromedial prefrontal cortex patients were often able to identify the rule about what decks are safe to play and what decks are too risky, they proceeded to select unfavorably from the high-risk decks. These participants never learned how to play the game because their knowledge, emotional reactions, and cognitive strategies were not connected (Immordino-Yang & Faeth, 2010). Clearly, these findings have important implications for the field of education. In order for students to learn, they have to be invested emotionally in the academic content. "If [students] feel no connection to the knowledge they learn in school, then the academic content will seem emotionally meaningless to them" (p. 76). This conclusion connects supports the UDL principle—*Multiple Means of Engagement*.

Immordino-Yang and Faeth (2010) recommended that teachers develop educational experiences that foster relevant emotional connections with the academic content. Some such

strategies, for example, involve students in the selection process of topics when teachers have the freedom to choose them. As students learn about a topic, they should be able to select from different types of assignments. For instance, when the topic is ancient Rome, Immordino-Yang and Faeth (2010) suggest that teachers offer students the choice of writing and performing a play about key events, writing a research paper, or designing a Roman model. Another effective strategy is to show students how new topics relate to their everyday lives and encourage them to pursue their interests. The authors recommended portfolios, projects, and group work as tools that foster emotional thought, a UDL tenet, reflected in the instructional practices suggested in the guidelines inherent to the principle—*Multiple Means of Engagement*.

Rappolt-Schlichtmann et al. (2012) also point out that people construct their understanding of the world through emotion and cognition, which varies across individuals, and that this variability seems to be consistently influenced by culture. According to the authors, Immordino-Yang realized that culture was integral to learning when she taught immigrant EL students. She observed that her students' cultural experiences played a role in how they learned and, as a result, she was compelled to study how culture and emotion shape thinking and learning. This concept has also informed the UDL framework, as its guidelines stress the importance of developing lessons that are culturally relevant to students. I expand on how the UDL framework supports cultural diversity in a later section. Next I focus on UDL as an educational framework to support ELs.

UDL as an Educational Framework to Support ELs

All students are entitled to access learning that allows them to achieve at grade level. Since the passage of the 2001 No Child Left Behind Act (NCLB, 2001) requirements and the 2004 Individuals with Disabilities Education Improvement (IDEI) Act (Edyburn, 2006; Stanford

& Reeves, 2009), teachers face a large range academic diversity in their classrooms. Educators must teach all students, those with and those without physical or learning disabilities, as well as ELs, implement the general English education curriculum, and prepare their students to achieve academically, with evidence provided by performance in the state's high-stakes tests. Edyburn (2006) pointed out examples of technology tools that can be used in the classroom as academic support in meeting students' learning needs. The author emphasized that only by using educational innovations, such as differentiated instruction and universal design for learning (UDL), can educators plan instruction that is tailored to students' academic diversity and learning needs. In UDL classrooms, teachers must address the four components of curriculum: goals, assessments, materials, and methods described previously (see Figure 3) by considering all students' needs from the onset in order to promote their success. The UDL framework addresses variability in students' multiple means of engagement with educational content. Contrary to traditional instruction, UDL stresses the importance of an instructional plan that meets students' needs at the forefront of the learning process rather than later, when they are failing (Hall et al., 2012; Jiménez, Graf, & Rose, 2007; Stanford & Reeves, 2009). In Jiménez et al.'s words (2007), "Through UDL, teachers develop appropriate goals designed to address the needs of a wide range of students and implement instructional methods responsive to individual differences" (p. 46).

But even as schools attempt to address academic diversity to meet the demands of NCLB and IDEI, they frequently ignore the implications of the inclusion mandate for ELs. Lopes-Murphy (2012) pointed out that in addition to the lack of teacher preparation in English as a second language (ESL), the curricula and assessment instruments used in schools do not meet the needs of EL students, contributing to their lack of academic success. The author posited that the

integration of UDL into teacher education programs and high school classes will improve ELs' academic achievement. In practice, UDL provides teachers with a guiding framework that addresses the breadth of linguistic, cultural, and cognitive variability (Hall et al., 2012). Based on the learning sciences, researchers have developed guidelines and checkpoints around the three principles of UDL: (1) Provide *Multiple Means of Engagement*; (2) Provide *Multiple Means of Representation*; and (3) provide *Multiple Means of Action and Expression* (Meyer, Rose, & Gordon, 2014). These principles offer guidance to teachers about how to integrate UDL into their instructional practices (see http://udlguidelines.cast.org for examples and resources).

In addition, Lopes-Murphy (2012) asserted that the application of UDL in secondary education classes will increase ELs' academic performance. By providing *Multiple Means of Representation*, she argued, students will be able to access content subject matter, regardless of the diverse needs they bring into the classroom. For example, under *Multiple Means of Representation*, Guideline 2: *Provide Options for Language, Mathematical Expressions, and Symbols*, reflects the importance of presenting information in ways that ELs can access. Lapinski, Gravel, and Rose (2012) echoed this assertion: " It is important to incorporate such strategies as pre-teaching important terms, providing multimedia glossaries, offering alternative languages and translation supports, and utilizing images and video in order to help make academic content more accessible" (p. 15). Lopes-Murphy (2012) suggested that with more opportunities to access content, students become more engaged in the learning process, another tenet of UDL, and, as a result, their academic performance will improve.

In the same vein, Lopes-Murphy pointed out that another important aspect to consider in the design of instruction and assessment for ELs is the development of academic language acquisition. Literacy in English is fundamental for ELs' access to content in the subject areas

(August & Shanahan, 2006; Lopes-Murphy, 2012). Lopes-Murphy (2012) recommended that the following practices be integrated into the design of curriculum and assessment for ELs: "(1) The use of scaffold language that connects prior knowledge to incoming information, [which connects with UDL principle 3.1] and (2) collaborative and group activities that encourage the use of academic language among learners in the instructional setting" (p. 227). The author also emphasized that the development of universally designed lessons and assessments should be based on levels of English proficiency. For example, students who have been in the United States for 6 months, and whose English proficiency is under development, usually can answer yes/no questions and respond to prompts that require them to show, point, or underline. Conversely, students who have been in the United States for 3 years or longer, and whose English proficiency level has reached the intermediate fluency/advanced level, have enough English to answer more complex questions, which require higher levels of language proficiency for more elaborated and detailed responses, such as "What if…?" "Why do you think that?" Learning a new language is developmental and it takes time; assessments should reflect awareness of this process.

UDL as a Framework to Support ELs' Cultural Diversity

Another important aspect that must be considered in the education of ELs is recognition of the diverse cultural backgrounds that these learners bring into the classroom—backgrounds that both offer a rich source of cultural knowledge and impact their access to and engagement with the curricula. Chita-Tegmark et al. (2012) explained that culture affects learning and, therefore, is a source of learner variability. "People from different cultures may learn the same things, but they may learn them differently" (p. 18). Moreover, the authors described how culture has a strong influence on the three different brain networks that are responsible for learning:

recognition, strategic, and affective[9]. Different cultures provide different experiences, and these experiences impact the brain differently. For example, culture shapes the way people reason, make analogies, and perceive the world—the *recognition* dimension. Culture provides a strategic framework for solving problems and determining what is appropriate behavior—the *strategic* dimension. Culture instills values and beliefs in people during their upbringing in a particular social context—the *affective* dimension (Chita-Tegmark et al., 2012). The UDL framework can address the needs of students of different cultural backgrounds through its principles: engagement, representation, and action and expression (Rose & Meyer, 2002) that are aligned with the three brain networks, respectively.

For example, the authors suggested that using multiple means of representation, defined by Rose and Meyer as Checkpoint 3.2: *Highlight Patterns, Critical Features, Big Ideas, and Relationships* (cited in Chita-Tegmark et al., 2012) can help teachers support culturally diverse students. Educators must be aware that culture informs how learners categorize and organize ideas and, therefore, accept different ways students may choose to represent relationships. The authors explain how different types of graphic organizers, such as tables with headings, Venn diagrams and pie charts can be used to give students the opportunity to convey their knowledge in familiar ways, as well as expose them to new forms of categorizing and expressing relationships.

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[9] Since the publication date of the article "Using the Universal Design for Learning Framework to Support Culturally Diverse Learners," CAST has changed the order in which the three brain networks that responsible for learning are presented, to affective, recognition, and strategic.

Cultural variability is also reflected in writing styles and problem-solving strategies. Rose and Meyer addressed this reality in their Checkpoint 5.3: *Build Fluencies with Graduated Levels of Support for Practice and Performance* under *Provide Multiple Means of Action and Expression* (as cited in Chita-Tegmark et al., 2012). This approach provides an important tool in culturally informed curricula (Chita-Tegmark et al., 2012). As stated, students from different cultural backgrounds bring with them different thinking structures, and these are reflected in their writing styles. As a result, "What may appear simplistic or disorganized to someone from one culture may actually be a very high-level example of another culture's preferred logic and composition style" (Chita-Tegmark et al., 2012, p. 21). These authors recommend that educators provide instruction on different formats of writing, and help students find the format that best fits the writing context. In this way, educators can begin with styles that are more familiar to the students' cultural frame of reference, eventually introducing unfamiliar styles (Chita-Tegmark et al., 2012). It is important for teachers to be aware that culture is a source of learner variability, and that the UDL framework can help develop instructional practices that meet the needs of EL students from culturally diverse backgrounds at different levels of English proficiency.

Summary

In the first section of this chapter, I reviewed the literature on second-language reading research. In my review, I discussed each of the six essential reading elements—oral language proficiency, phonemic awareness, phonics, reading fluency, vocabulary, and reading comprehension—that the NLP (August & Shanahan, 2006) found to be fundamental in the reading instruction for ELs. These elements were the same as those the NRP (NICHD, 2000) found to be fundamental in the instruction of English-speakers, with the addition of oral reading proficiency. Because English-speakers enter school with competence in the language of

instruction, oral language fluency is not an essential reading element in their literacy acquisition. Conversely, second-language learners must learn how to speak the language before they learn to read in English; this process takes a long time. This finding shows that it is imperative that ELs learn to read in the language they can speak, because it takes less time, and because reading skills can be transferred from L1 to L2.

In the second part of this chapter I focused on the literature review of Universal Design for Learning (UDL), which informed the development of the new literacy model for SIFE developed in my research. I explained that this educational approach is based on neuroscientific brain structures that are present in all learners, but that operate in a learning environment in multiple ways. Hence, it is imperative to incorporate UDL's three principles—*Multiple Means of Engagement*, *Multiple Means of Representation*, and *Multiple Means of Action and Expression*—into curriculum and instruction to meet all learners' needs.

Chapter 4: Methodology

This chapter provides the roadmap used to conduct research towards creation of a new model for literacy education and its implementation through a *Teacher's Guide.* The model and guide are intended to support educators in teaching nonliterate Spanish-speaking SIFE how to read in the shortest amount of time.

The research consisted of three major phases: (1) study of Paulo Freire's concepts and literacy principles, review of literature on elements of literacy instruction and achievement, and on UDL; (2) creation of the Spanish Freire-UDL Literacy-*Alfabetizacón* Model; and (3) the development and validation of the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide*. This action research study explicitly connects theory with practical application in an area of education that is in dire need of intervention.

Research Questions

The research questions that guided this study are as follows:

Research Question 1:

What were the key concepts of Paulo Freire's Pedagogy of Conscientización *and* Alfabetización *that could inform the creation of a new Freire-UDL-*Alfabetización *Literacy Model for nonliterate Spanish-speaking SIFE/SLIFE?*

Research Question 2:

What were the necessary steps to integrate the UDL Framework with Paulo Freire's method of alfabetización *to create a new model of literacy education for nonliterate Spanish-speaking SIFE/SLIFE?*

Research Question 3:

*How can the Freire-UDL-*Alfabetización *Teacher's Guide that applies the* Freire-UDL *Alfabetización* Model™ *be created and validated?*

General Aspects of the Design

This action research was designed with the ultimate goal to solve a problem of illiteracy faced by Spanish-speaking nonliterate SIFE in US schools by: (1) Creating a Spanish Freire-UDL-*Alfabetización* Literacy Model based on the integration of two successful theoretical frameworks—Paulo Freire's *Alfabetización* with the UDL Framework, (2) Applying the new model to the creation of the *Freire-UDL Literacy* Alfabetización *Teacher's Guide*, and (3) Validating the new literacy model and guide.

Action research is a type of qualitative study that focuses on solutions-oriented research in education. Taylor, Wilkie, and Baser (2006) explain that action research is problem-solving based. It aims to bring change, particularly within an educational setting, by changing teaching and learning methods. This research was carried out in three phases: Phase 1—Study of Freire's *Alfabetización* principles and pedagogy, Phase 2—Creation of the *Freire-UDL Literacy-*Alfabetización *Teacher's Guide*, and Phase 3—Validation of the *Freire-UDL Literacy-*Alfabetización *Teacher's Guide* and the Literacy-*Alfabetización* Model™.

Phase 1: Foundational Inquiry of Freire's Pedagogy and Creation of the Freire-UDL Literacy Model

This phase of the study addressed all the necessary foundational work related to the creation of the Freire-UDL Literacy-*Alfabetización* Model. It included three steps: foundational inquiry, exploration, and model creation (see Figure 7).

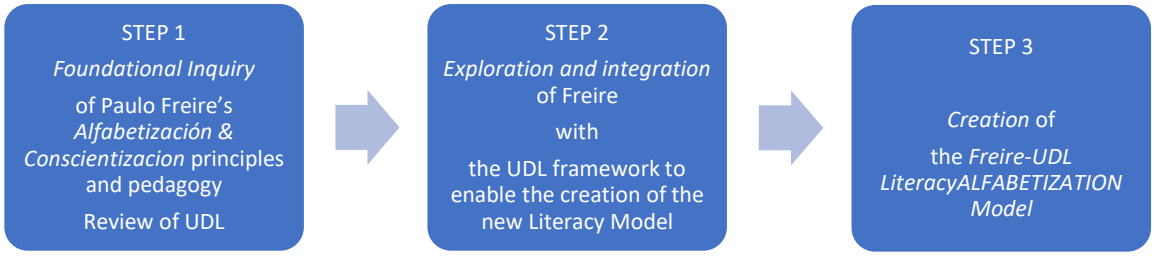

Figure 7. Steps in Phase 1 of this research.

Foundational Inquiry. To enable the development of the Spanish Freire-UDL Literacy Model, the relevant literature and support materials were selected, reviewed, and studied for the purpose of becoming well versed on Freire's pedagogy of literacy/*alfabetización*. Additional relevant literature was also reviewed, including literature addressing principles of UDL.

Exploration and Integration. The researcher explored how to integrate Freire's pedagogy of *alfabetización* and *conscientización* with the UDL framework to create the Spanish Freire-UDL Literacy-*Alfabetización* Model. The integration of these two educational approaches is the conceptual foundation of this new literacy model (see Figure 8).

Creation. The Freire-UDL Literacy-*Alfabetización* Model is a foundational blueprint for the development of the *Teacher's Guide* to explicitly provide Spanish bilingual teachers the necessary guidance and resources to implement this innovative approach to literacy learning through Spanish instruction with nonliterate Spanish-speaking SIFE.

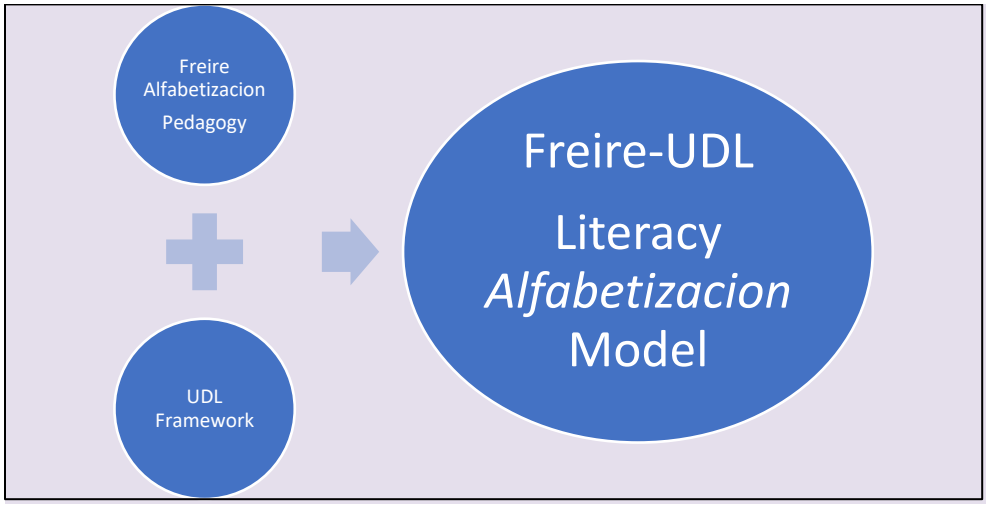

Figure 8. Integration of Freire's Pedagogy with the UDL framework.

Phase 2. Steps in Creation of the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide*

The next phase in this process was the creation of the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide*, which connected theory with practice. The *Teacher's Guide* is the practical application of the Freire-UDL Literacy-*Alfabetización* Model for educators to use in teaching nonliterate Spanish-speaking SIFE to learn to read through Spanish instruction in less than 4 months.

The Spanish *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* is very explicit in providing Spanish bilingual teachers the necessary guidance and resources to implement this innovative approach to literacy learning through Spanish instruction with nonliterate Spanish-speaking SIFE. The creation of the Freire-UDL Literacy-*Alfabetización* Model was foundational to this process because it provided a blueprint that informed practice in the preparation and creation of the *Teachers' Guide* (see Figure 9).

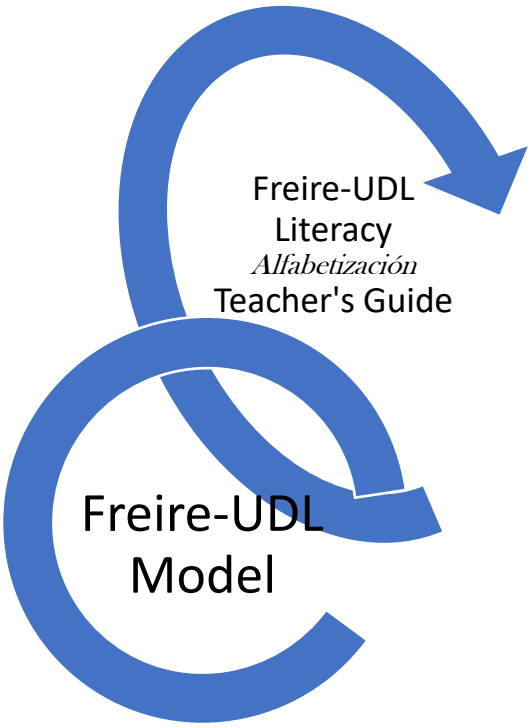

Figure 9. Illustration of creation process for the Freire-UDL Literacy-*Alfabetización* Teacher's Guide.

Phase 3. Validation of the *Teacher's Guide*

Phase 3 focused on initial validation of the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* and included six steps (see Figure 10).

SIFE Teacher Reviewers. Ten volunteers, Spanish bilingual SIFE teachers, were selected to participate in a validation workshop for the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide*; a workshop location was obtained at a public-school site. In addition, two outside reviewers were also contacted and selected to participate in this work.

Research Tools. Letter of Consent and the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* Validation Tools were created. This step involved preparation of the Letter of Consent, and creation and validation of the Freire-UDL Literacy-*Alfabetización* Validation Questionnaire (See Appendices D and E).

Workshop Preparation. Workshop content was prepared, and sample literacy materials created.

Workshop Session. Delivery of the validation workshop was carried out by this researcher, who introduced the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* (Pilot Version) and the Freire-UDL Literacy-*Alfabetización* Model to bilingual Spanish SIFE teachers (potential users), to learn from potential users and gain their feedback. Teachers reviewed the *Guide* in sections and experienced the process of *alfabetización* and *conscientización* during a sample lesson. A copy of the final version of the *Guide* was provided to each Spanish bilingual teacher.

Data Collection. The *Freire-UDL Validation Questionnaire* (See *Appendix E*) was given to the teachers to complete after participating in the workshop.

Data Analysis. Analysis of the Freire-UDL Literacy-*Alfabetización* Validation Questionnaire data was conducted, and suggested changes to the *Guide* were incorporated based on feedback from the 10 workshop participants and the two outside reviewers.

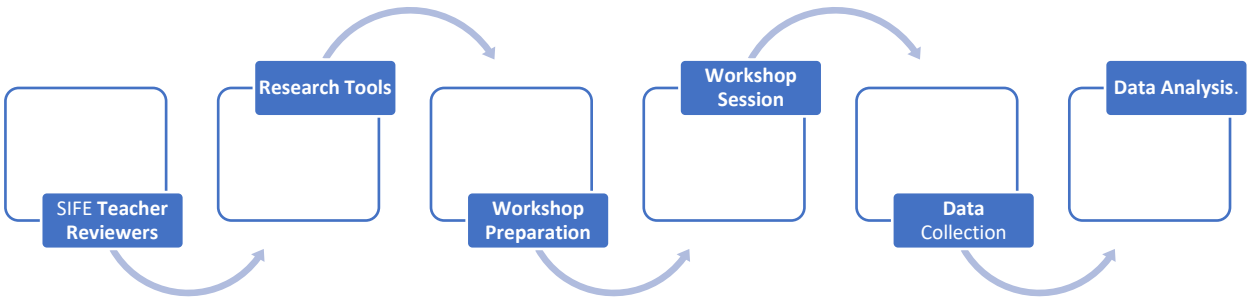

Figure 10. Steps in the validation of the *Teacher's Guide*.

The three phases in this action research study led to creation of the Freire-UDL Literacy-*Alfabetización* Model and *Teacher's Guide* to support educators in teaching nonliterate Spanish-speaking SIFE how to read through Spanish in less than 40 hours.

Problem Statement

This study addresses a two-fold problem, the need to teach a significant number of nonliterate Spanish SIFE/SLIFE to read effectively through Spanish, and the need for adequate preparation among middle and high school educators to teach Spanish-speaking nonliterate SIFE/SLIFE how to read through instruction in their native language (Ruiz-de-Velasco & Fix, 2000). These students are entitled to learn according to current law, and without foundational literacy they will not be able to access education that prepares them for life outside school.

Significance of this Study

This study has scholarly, pedagogical, policy, and social justice implications. While it adds to the body of research on SIFE (Browder, 2014; DeCapua & Marshall, 2010a; DeCapua & Marshall, 2010b; DeCapua, Smathers, &Tang, 2007; Freeman, Freeman, & Mercuri, 2001; Klein & Martohardjono, 2006; Klein & Martohardjono, 2015; Medina, 2009; Porter, 2013), it is the first study that addresses Spanish-speaking SIFE who have not yet had the opportunity to learn how to read in their native language. In my review of the literature, I learned that prior research studies on SIFE/SLIFE have focused on identifying instructional practices that address the academic needs of students who, although having low literacy skills, already possess basic literacy skills.

This study has pedagogical implications in that it creates a new literacy model that middle and high school educators can use to teach nonliterate Spanish-speaking SIFE/SLIFE how to read. Through Spanish instruction, these students can learn to read in a very short amount

of time (30 to 40 hours), in comparison with the need for years of instruction in English to achieve a similar level of literacy. While Spanish-speaking SIFE/SLIFE may be placed in programs that provide academic support in these students' native language, middle and high school SIFE teachers are not currently prepared to teach students how to read (Ruiz-de-Velasco & Fix, 2000). As a result, school districts must offer professional development to educators in order to prepare them to teach Spanish-speaking SIFE/SLIFE how to read; and the most efficient means to do so is through Spanish instruction.

This study has social justice implications because it is grounded on Freirean pedagogy, which advocates that students learn to read the world before they learn to read the word (Freire & Macedo, 1987). In other words, as with Freire's participants, when students are led to analyze their social context and life realities, they become aware of all their possibilities and, therefore, become empowered to change their life circumstances. They gain the confidence that they, too, have the right to transform their life situation into a better one. Therefore, it is urgent that Spanish-speaking SIFE/SLIFE learn how to read in order to have a better life in school and later in society. In today's world, people must be literate to be able to access the technology needed to hold a job and carry out simple tasks.

Researcher Role

My first experience with SLIFE was in the beginning of my 24 years as an ESL teacher. Although I had some Portuguese-speaking students, most of the students in my classes were Spanish-speaking; they came from various countries in Latin America. I learned that some of these students came to the United States with very little formal schooling as a result of a devastating civil war, in the case of El Salvador; financial hardships; or having lived in remote areas without access to school. Because of their ages, which generally varied from 12 to 15

years, they were enrolled in middle school in spite of having very limited literacy skills or without knowing how to read and write in their native language. SIFE/SLIFE were usually placed in ESL classes without any additional literacy support until they received attention as a subgroup of ELs.

As I worked with these students, helping them to develop English oral skills, I learned much from them. They often shared with me their rich life experiences, their cultures, and their language. As I taught them, I also learned, recognizing the truth in Freire's words, "*Ninguém ignora tudo. Ninguém tudo sabe*" (Freire, 1967, p. 104). [No one knows everything; everyone knows something]. Although these students did not know how to read and write, they were very knowledgeable in other realms of life.

As an ESL teacher and an immigrant, I related to these students, and they related to me. I could understand their struggles as newcomers to the United States who did not speak English and who needed to adapt to the new culture. They needed to quickly acquire basic English oral language skills that would allow them to navigate their new society, and addition to help their families by serving as translators for them. As an ESL teacher I could help them meet those urgent needs. However, like so many other middle school teachers, including Spanish bilingual teachers, I had not received adequate preparation to teach students how to read and write in their native language.

My role as a researcher was to contribute by developing a literacy model and *Teacher's Guide* that support educators in teaching Spanish-speaking nonliterate SIFE how to read in less than 40 hours. While the development of this model and guide aim to help middle and high school teachers who lack adequate preparation to teach Spanish-speaking nonliterate

SIFE/SLIFE how to read and write, there is still a great need for further research on how to address the needs of SIFE/SLIFE in U.S. secondary schools.

Summary

This chapter described the purpose and research questions that guided this study in developing the new Freire-UDL Literacy-*Alfabetizació*n Model and the *Freire-UDL Literacy-*Alfabetización *Teacher's Guide* that will support Spanish bilingual SIFE/SLIFE educators in teaching nonliterate Spanish-speaking SIFE how to read through Spanish instruction. The creation of this new theoretical construct was based on extensive review of the literature, and the intellectual process of analyzing, synthesizing, and integrating two educational approaches: Freire's pedagogy of *Alfabetización* and *Conscientización*; and the UDL framework. This chapter also described the procedures used in developing the *Teacher's Guide*. Finally, it reported on the processes of selecting the teacher reviewers/participants to take part in the validation workshop and gave a detailed description of the validation study of the model conducted with the teachers.

Chapter 5: Research Outcomes

The purpose of this study was to create a new literacy-*alfabetización* model and *Teacher's Guide* to support Spanish bilingual educators to teach nonliterate Spanish-speaking SIFE how to read in 40 hours or less through Spanish instruction. This chapter begins with Research Question 1, which addressed the study of the key concepts of Freire's Pedagogy of *alfabetización* with *conscientización*, the first phase in the creation of the new Freire-UDL Literacy-*Alfabetización* Model. It is followed by Research Question 2, which addressed the necessary procedural steps to integrate UDL with Freire's method of *alfabetización* to create the Freire-UDL Literacy-*Alfabetización* Model and the development of the *Teacher's Guide*. However, the *Teacher's Guide* is presented separately, in Chapter 6. This chapter ends with Research Question 3, which addressed the various steps in developing and validating the *Freire-UDL Literacy-Alfabetización Teacher's Guide*, and a final reflection.

The three research questions that guided this study are as follows:

1. *What were the key concepts and principles of Paulo Freire's Pedagogy of* Alfabetización *and* Conscientización *that informed the researcher in the creation of the new Freire-UDL Literacy-Alfabetización Model for nonliterate Spanish-speaking SIFE/SLIFE*?
2. *What were the necessary procedural steps to integrate UDL with Paulo Freire's method/pedagogy of* Alfabetización *to create a new Freire-UDL Literacy-*Alfabetización *Model™ for practical use with nonliterate Spanish-speaking SIFE/SLIFE?*
3. *How to create and validate the Freire-UDL Literacy-*Alfabetización *Teacher's Guide that applies the* Freire-UDL Literacy-*Alfabetización* Model™?

The outcomes are presented for each research question, except for Research Question 2, which is the *Freire-UDL Literacy*-Alfabet*ización Teacher's Guide* that is included in Chapter 6.

Research Question 1

*What were the key concepts and principles of Paulo Freire's Pedagogy of Alfabetización and Conscientización that informed the researcher in the creation of the new Freire-UDL Literacy-*Alfabetización *Model for nonliterate Spanish-speaking SIFE/SLIFE?*

To answer this research question, the researcher studied Paulo Freire's theoretical framework in the literature, including books articles, videos, websites, and interviews with a special lens on learning how *alfabetización* and *conscientización* were implemented with individuals who had learned to read and think in a short amount of time, regardless of their dire social conditions. I began by studying the social context that influenced his pedagogy of reading the world to read the word and learned about his three pedagogical principles and inherent teaching practices that are fundamental to the process of *conscientización* within his method of *alfabetización*.

Development of Freire's Concepts within the Social Movements of the 1960s

The 1960s was a decade marked by a waking-up movement to gain social equality and justice in the United States as well as in other countries. While the civil rights movement, the women's movement, and the movement against the war in Vietnam pervaded the political landscape in the United States, social movements were also taking place throughout Europe. Many African countries became independent from their European colonizers during this decade. In Brazil a socialist movement that opposed rural oligarchies in favor of more progressive governments (Leher & Vittoria, 2015) emerged in the early 1960s. This movement challenged the inequality and oppression of the popular classes in relation to the dominant elites, which,

according to Weffort, had defined the Brazilian social system until then (Freire, 1967). It was within this social movement that popular education programs were organized in the country, spearheaded by Freire's liberating pedagogy (Leher & Vittoria, 2015).

Paulo Freire took part in the Movement for Popular Culture (MCP), the Cultural Extension Service (SEC) at the Federal University of Pernambuco, and adult literacy in Angicos, Rio Grande do Norte (Freire, 1996). At this time the presidential government of João Goulart, which began in 1963 and was characterized by politics from the left, was very supportive of Freire's work. During Goulart's administration, education was one of his important reforms, seeking to combat adult illiteracy through the teachings and method of Paulo Freire. Goulart invited Freire to coordinate the national literacy plan after his great success with the adult literacy project in Northeast Brazil (Leher & Vittoria, 2015), which resulted in the alphabetization of 300 workers in 45 days (Freire, 1967). Freire had created a literacy model that enabled adults to learn how to read in 30 to 40 hours (Brown, 1978). However, the socialist movement came to an end in 1964 with a military coup d'état, forcing the Brazilian president into exile in Uruguay. After being under house arrest for 70 days, Freire took refuge in Chile (Brown, 1978).

Under the ensuing dictatorship, many socialist movements were prohibited, and popular education programs gave way to "the Brazilian Literacy Movement (MOBRAL), "relegating adult and youth literacy to a technical activity and an apologia for the regime" (Leher & Vittoria, 2015, p. 150). Although in exile, Freire continued thinking, reading, and writing about education, as it is evident in his books. Paulo Freire's influential work and his dream of a classless society was inspired not only by the grueling social reality of Brazil, but also by the difficult childhood he had experienced as a result of it.

In one of many vivid accounts of his early youth, Freire describes in the most poignant way the hunger that he suffered as a child. In *Letters to Cristina* (1996), he writes:

> The security of the love in our family helped us to confront the real problem that afflicted us during the greater part of my childhood: the problem of hunger. It was a real and concrete hunger that had no specific date of departure. Even though it never reached the rigor of the hunger experienced by some people I know, it was not the hunger experienced by those who undergo a tonsil operation or are dieting. On the contrary, our hunger was of the type that arrives unannounced and unauthorized, making itself at home without an end in sight. A hunger that, if it was not softened as ours was, would take our bodies, molding them into angular shapes. Legs, arms, and fingers become skinny. Eye sockets become deeper, making the eyes almost disappear. Many of our classmates experienced this hunger and today it continues to afflict millions of Brazilians who die of its violence every year. (p. 15, also cited in *Pedagogy of the Oppressed*)

The above words describe the painful experiences that Freire, like so many other Brazilians, lived and continue living. It is only such an experience, one that takes over one's body and soul, which can give voice and inner strength to a life-long commitment. Freire's commitment was to struggle toward, transforming the world into a more just and humane place, as is evident throughout his life's work. And that struggle, for Freire, was one of developing a liberating pedagogy that through consciousness-raising helped many people to learn how to read. In distancing themselves from their reality, people were able to become critical of their social context, the action which Freire refers as "reading the world," so they could more effectively learn to read the "word" (Freire, 2009; Freire & Macedo, 1987).

Paulo Freire became one of the most influential theorists of critical pedagogy (Leistyna, 2004) and one of the greatest teachers of the twentieth century (Freire & Macedo, 1987; Roberts, 2000; Ryan, 1974). His works have been studied, discussed, and referenced in the context of critical literacy theory time after time (Brandão, 1981; Brown, 1978; Freire, 1967, 2009, 2017; Freire & Macedo, 1987; Goodman & Cocca, 2014; Howard & Logan, 2012; Luke, 1992; Luke & Elkins, 2002; Porter, 2013; Roberts, 2000; Ryan, 1974).

In Brazil, Freire taught nonliterate adults how to read in 30 to 40 hours by using his methodology of *alfabetização* (Brown, 1978). In Cuba, the methodology used in the successful national literacy campaign of 1961, which reduced the previously high rate of illiteracy on the island to 3.9%, also reflected the Freirean methodology (Abendroth, 2009; Supko, 1998). In Chile, where Freire lived in exile, a major goal of President Eduardo Frei Montalva's government between 1964 and 1970 was to combat the high illiteracy rate in the country through an educational reform that would create social mobility for the marginalized populations. *La Campaña Nacional de Alfabetización y Recuperación Educacional* was implemented based on Freire's method of *alfabetização/alfabetización*, which brought down the high percentage of illiteracy (Torrejón, 2014). Torrejón tells us that in Chile, the 49.7% rate of illiteracy in 1907 dropped to 16.4% in 1960, reaching 11.7% in 1970.

As one reads the works of Freire, it is evident that his view of education is one of liberation, dignity, hope, and humanization. To Freire, education cannot happen without *conscientização*, a Portuguese word—translated as conscientization and often referred to as consciousness-raising—that has become internationally well known among educational theorists (Ryan, 1974). In Freire's pedagogy, *conscientização* represents a fundamental concept in

education, one that has profound implications in a man's and a woman's consciousness-raising toward his and her place in the world and with the world.

Freire explained that while animals are in the world to adapt to it in order to survive, men and women are not just *in* the world but also *with* the world, for they have the ability to reflect on it as they analyze their social context, living conditions, community, and culture. It is the process of being able to distance oneself from the world to unveil reality, reflect on it, and transform it that Freire calls *conscientização*. However, the author pointed out that although the *unveiling of reality* is tantamount, *conscientização* is not authentic unless it includes the practice of *transforming* that reality.

> In *Pedagogy of Hope: Reliving Pedagogy of the Oppressed* (2016/1992), Freire stated: Although there can be no consciousness-raising (*conscientização*) without the unveiling, the revelation, of objective reality as the object of the cognition of the subjects involved in process of consciousness-raising, nevertheless that revelation—even granting that a new perception flows from the fact of a reality laying itself bare—is not yet enough to render the consciousness-raising authentic…. Its authenticity is at hand only when the practice of the revelation of reality constitutes a dynamic and dialectical unity with the practice of transformation of reality. (p. 93)

Only as men and women gain critical consciousness of the world, can they act on it to transform it, humanizing it. "Integration with one's context, as distinguished from adaptation, is a distinctly human activity. Integration results from the capacity to adapt oneself to reality plus the critical capacity to make choices and transform that reality" (Freire, 1974, p. 4). In other words, integration with one's context, in addition to having the critical ability to reflect on it and transform it—man's/woman's praxis—is what distinguishes men/women from animals (Freire,

1967, 2009, 1974; Ryan, 1974). However, when men and women are not able to change reality, adapting to it instead, their behavior takes the form of animals' adaptation, reflecting their dehumanization (Freire, 1974). Men and women must, therefore, challenge the oppressive factors that lead them to their adaptation or adjustment in the world so they can gain their full humanity (Freire, 1974). "True education serves this end through *conscientization*; it is a liberating process which addresses itself to both the individual and the social dimensions of man" (Ryan, 1974, p. 11). For Freire, education is an affirmation of freedom (Freire, 1967) insofar it develops students' *conscientização*.

In the Introduction to Freire's first book *Educação Como Prática da Liberdade*, Weffort commented that, as the title of the book indicates, the Freirean pedagogy is one of freedom, inspired by the historical conditions in Brazil at the time. The creation of Freire's *Prática da Liberdade* (pedagogy of liberation) came from the urgency of *conscientização* and *alfabetização* among the popular masses of the country, in which illiterates made up half of the population and were the poorest in the country (Freire, 1967). Through his method of *alfabetização* and *conscientização*, Freire's adult literacy program was exceptionally successful and achieved worldwide acclaim (Elias, 1974). Shaull stressed that education can either lead the younger generation to conform to the present sociopolitical system or empower them by what Freire vehemently proposes in his pedagogy, "the practice of freedom." The latter is only possible through the process of *conscientização* (Freire, 2009).

The Process of Conscientização/Conscientización

Conscientização was defined initially for nonliterate adults as the process of developing a critical awareness of one's social reality through reflection and action. Action was fundamental because it was the process of changing reality. Freire said that we all acquire social myths which

reflect the ethos of the dominant social group, and so learning is a critical process that depends upon uncovering real problems and actual needs. *Conscientización* cannot be bestowed upon learners; rather, it is achieved through *problem-posing education* defined by inquiry and reflection. This process leads to the unveiling of reality and, consequently, its transformation.

In Freire's pedagogy, the process of c*onscientización* consists of two phases: *codification* and *decodification*. In the codification phase, educators project a photo, a sketch, or a slide, representing a dimension of the reality in which learners live. This representation of a real-life situation enables the learners to gain distance from the knowable object. Educators also experience this distance, and so together learners and educators "reflect critically on the knowable object that mediates between them" (Freire, 1985, p. 52). In decodification phase, the learners analyze the constituent elements of the codification and perceive the relationship of these elements, as well as other facts, presented in the real context, which they had not previously recognized. The objective of decodification is to gain the critical level of knowing, starting with the learner's experience of the situation. In other words, Freire explained, "Existential experience is a whole. In illuminating one of its facets and perceiving the interrelation of that facet with others, the learners tend to replace a fragmented vision of reality with a total vision" (1985, p. 52). It is through this process that learners develop *conscientização*, gain agency to change their lives, and create better futures. This process translates into current pedagogy with middle and high school students, as it actively engages learners in the development of their critical/higher-level thinking, leading students to directly connect their own life experiences and ways of knowing with higher levels of thinking as operationalized in Bloom's Taxonomy (Center for Resource Management, Public Consulting Group, 2007) and the Habits of Mind (Costa and Kallick, 2002).

Themes, Thematic Universe, Generative Themes, and Thematic Investigation

In the process of developing students' *conscientização/conscientización*, it is important to have an open mind in learning about the students' life experiences, which may be very different from the teacher's, to be able to gain an understanding of the generative themes, and the thematic universe, of the learners. Freire (2009, 1974) explained that a *generative theme* does not only come from the existential experience of the individual, but it also comes from a critical reflection of the relation between the human-world relationships between people. He noted the distinction between humans and animals and their different places in the world; and said that while men and women are the only uncompleted beings in the world capable of making their actions and activities the object of their reflection, animals adapt to the world in which they live without being able to gain distance from their activities and reflect upon them. Animals are unable to set goals, and their environments are not challenging to them, for they only act in reflex. Risks are not trials, for animals cannot respond to them upon reflection. In other words, animals are not conscious beings able to acknowledge life, build on it, or transform it. They are ahistorical, living only in the present.

Conversely, men and womend as well as young peopled are able to distance themselves from their world and their activities, set goals, and attempt to accomplish them within their relationship with themselves, the world, and others. Hence, as humans are conscious of themselves and their world, they live a contentious relationship between limitations that emerge as barriers, which Freire referred to as *limit-situations*, and their freedom (Freire, 2009). When men and women perceive these situations as obstacles to their freedom, "these situations stand out in relief from the background, revealing their true nature as concrete historical dimensions of a given reality" (p. 99). Individuals respond to these challenges with actions, *limit-acts*,

overcoming them, instead of accepting them in a passive manner. Freire explained that it is not the limit-situations that lead to hopelessness but, instead, it is the perception that at a given historic moment, people cannot overcome these situations. However, when this critical perception is embedded in action, hopelessness in adults is replaced by hope and confidence, leading men and women in the endeavor of overcoming their limit-situations.

Individuals interact with the world by responding to challenges, humanizing reality, creating, and recreating. "[They] enter into the domain which is theirs exclusively—that of History and of Culture" (Freire, 1974, p. 4). They are historical beings with a past, present, and future, making their history through their creations. It is through men and women's critical interaction with the world, in their creations and re-creations, that historical epochs materialize. An historical epoch is defined by ideas, values, hopes, aspirations, affairs, and challenges. Freire (2009) explained that, "The concrete representation of many of these ideas, values, concepts, and hopes, as well as the obstacles which impede the people's full humanization, constitutes the themes of that epoch" (p. 101). These themes are never independent; they are always interacting with opposing themes, indicating tasks to be fulfilled. The interaction of these themes in an epoch makes up the *thematic universe* (Freire, 2009, 1974).

In facing this universe of themes, which are controversial, individuals also take contradictory positions by working either toward the maintenance of existing structures (the status quo) or toward their transformation. This transformation is only possible insofar as men and women develop a critical view of reality, unveiling it. This unveiled reality is expressed

through themes, *generative themes*.[10] "In the last analysis, the themes both contain and are contained in limit-situations; the tasks they imply require limit-acts" (Freire, 2009, p. 102). It is, therefore, essential that men and women become aware of these themes when hidden in the limit-situations so people realize that beyond these situations lies possibility, which Freire referred to as *untested feasibility* (Freire, 2009). Therefore, a liberating education involves the perception of these themes, which in turn requires the investigation of meaningful thematics.

Freire (2009) emphasized that the generative theme comes from the relationship between people and reality. "To investigate the generative theme is to investigate the people's thinking about reality and people's action upon reality, which is their praxis" (p. 106). For this reason, in Freire's methodology, the investigators, in this case the teachers and the people who traditionally are the objects of the investigation, the learners, must be co-investigators. In other words, the purpose of the thematic investigation is to promote awareness of reality and self-awareness. This should be the point of departure for a liberating educational process (Freire, 2009) that will promote learners' development of *conscientização/conscientización*. This educational process is the antithesis of what Freire refers to as the *banking concept of education*. Teachers and learners cannot be co-investigators within the traditional (banking) educational system.

The Banking Concept of Education vs. Education as Problem-Posing or Liberating Concepts

The *banking concept of education* is characterized by the teacher (the subject), who, possessing all the knowledge, must deposit it into the students (the objects), who become like

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[10] Freire (2009) explains that these themes are named *generative* because they can generate other themes, which consequently give rise to new tasks to be completed.

containers to be filled by the teacher's knowledge. Freire (2009) explained that, "The more completely they accept the passive role imposed on them, the more they tend simply to adapt to the world as it is and to the fragmented view of reality deposited on them" (p. 73). Freire referred to this model as the banking form of education, in which knowledge is not constructed through inquiry with dialogic action but, rather, is deposited into a vacuum, as if students had no pre-existing knowledge or experience —a tenet of the *pedagogy of the oppressed*. The banking method stifles students' critical consciousness, preventing them from unveiling reality, from reading the world and, in this way, avoiding "the threat of student *conscientização*" (p. 74). According to Freire, without a dialogical inquiry with the world, which is only possible through critical consciousness, or *conscientização*, men and women cannot attain their full humanity.

In contrast with the banking concept—that is, in education for freedom—men and women become subjects of their learning rather than objects inherent to the banking type of education. According to Freire (2009), "The term subjects refers to those who know and act, in contrast to objects, which are known and acted upon" (p. 36). However, in *education for freedom*, both teachers and students participate as subjects in *problem-posing education* through dialogue, endeavoring to unveil reality. It is the emergence of consciousness, *conscientização,* in the process of unveiling reality, that is at the center of Freire's pedagogical theory, which, in Berthoff's words "is not inculcated but is developed and formulated as an essential activity of all learning" (Freire & Macedo, 1987, p. xv). A liberating pedagogy is *dialogically base*d, developing a means of moving from a *submerged consciousness* to *critical consciousness*. In this educational concept, men and women are led to analyze their realities and, consequently, become motivated to change their lives—the process which Freire referred to as *being in the world and with the world* (Freire, 2009, 1974; Ryan, 1974). In the liberating praxis of problem-posing

education, teachers and students engage in dialogue as subjects of the educational process and the world "becomes the object of that transforming action by men and women which results in their humanization" (Freire, 2009, p. 86). Freire's philosophy of learning is based on *dialogue between people-in-solidarity and the world*; therefore, language as the essence of dialogue is fundamental in the process of *conscientização*, which is at the center of his liberating pedagogy.

The Importance of Dialogue in Freire's Liberating Pedagogy

Dialogue is primordial in Freire's pedagogy, as well as in the characteristics that must be embedded in it. A liberating pedagogy is based on dialogue between teacher and learners. Here, it is fundamental to reflect on the answer to the question that Freire asked us, "What is dialogue?" *In Educação E Mudança*, Freire (2014) explained that dialogue is based on a *horizontal* relation between A and B—not a vertical one where A is superior to B, a situation inherent to banking education. Only true dialogue can communicate; therefore, dialogue is based on respect, equality, humility, love, and hope. The teacher is not the only one who teaches, for while teaching, he/she is also being taught by the students, who while learning, also teach the teacher.

One of Freire's pedagogical principles thus demands respect for learners, reminding us in the most meaningful way that it was by learning that men and women realized the possibility of teaching. Learning, in other words, preceded teaching. Therefore, teaching does not exist without learning, and vice-versa. Participating in a *teaching-learning pedagogical pr*actice promotes a growing curiosity in learners—and teachers—that will make them more creative (Freire, 1999).

It is imperative to recognize that students, whom Freire refers to as *educandos*—whether they be children, young adults, or adults—bring with them a vast understanding of the world in its many dimensions that make up the social context of which they are a part. Failure to respect

and value students' knowledge and ideas about "health, the body, sexuality, life, death, the power of the saints, magic spells" inherent to their sociocultural experience is wrong, and expresses an elitist ideology (Freire, 1994, p. 76). Again, Freire stressed respect as one of his pedagogical principles: *"ensinar exige respeito aos saberes dos educandos"* (Freire, 1999, p. 33) [teaching demands respect for the students' knowledge]. There is neither absolute ignorance nor absolute knowledge; there are only degrees of education (Freire, 2014). Here, Freire brought forth the importance of humility in the act of teaching, another of his educational principles, and condemned the superior position of those who think they are teaching a group of ignorant people. He wrote:

> *... não podemos nos colocar na posição do ser superior que ensina um grupo de ignorantes, mas sim na posição humilde daquele que comunica um saber relativo a outros que possuem outro saber relativo* (Freire, 2014, pp. 35-36). [We cannot place ourselves in the position of a superior being who teaches a group of ignorant people but, on the contrary, we should take a humble position of one who communicates relative knowledge to others who also have other relative knowledge. It is also important to be able to acknowledge when the learners know more and show them that they too need to be humble].

In other words, teaching is an exchange (of knowledge), but dialogue is the opposite of a banking transaction.

Love is another quality included in Freire's pedagogy. He explained that love is an *intimate intercommunication* between two people who respect each other; it is not based on one's imposition over the other. Education cannot happen without love. Freire writes:

> *Quem não é capaz de amar os seres inacabados não pode educar. Não há educação imposta, como não há amor imposto. Quem não ama não compreende o próximo, não o respeita* (Freire, 1999, p. 36). [The person who is unable to love uncompleted beings, cannot educate. There is no imposed education, just like there is no imposed love. Those who cannot love cannot understand others or respect them].

Freire (1999) explained that humans are *uncompleted beings* and, therefore, where there is life, there is incompleteness. However, only humans are conscious of their incompleteness. In the same vein, because humans are uncompleted beings, there must be hope in the act of educating. In the process of *unveiling reality* and transforming it to become more, men and women must have hope (Freire, 2014).

Language and Conscientização/Conscientización

According to Freire (2009), language, the basis for dialogue, is more than a means of communication: *language is praxis*. It is two-dimensional, the interaction of reflection and action. Freire pointed out that human existence is not silent: *to say the word is to name the world*, to transform it and, therefore, to *humanize* it. Fiori expressed the importance of language in a most eloquent way by saying:

> *Com a palavra, o homem [a mulher] se faz homem [e mulher]. Ao dizer a sua palavra, pois, o homem[a mulher] assume conscientemente a sua essencial condição humana* (Freire, 2017, p. 17). [With the word, humans become more human. By saying the word, men and women consciously embrace their essential human condition].

However, only true words can denounce the unfair world and, by *denouncing the world*, one makes a commitment to *transforming it through action*. When men and women come together to analyze their lived experiences and their realities through dialogue, they are exercising their right

to *say the word as they name the world*. It is by naming the world that men and women internalize its meaning, reflect on it, and work to transform it. According to Berthoff, language is thus a medium for *conscientização*; but no one can achieve *conscientização* separately from others (Freire, 1967). Fiori explained:

> *Mas ninguém se conscientiza separadamente dos demais. A consciência se constitui como consciência do mundo. Se cada consciência tivesse seu mundo, as consciências se desencontrariam em mundos diferentes e separados—seriam mônadas incomunicáveis. As consciências não se encontram no vazio de si mesmas, pois a consciência é sempre radicalmente, consciência do mundo. Seu lugar de encontro necessário é o mundo, que senão for originariamente comum, não premitirá mais a comunicação.* (Freire, 2017, pp. 20-21)

In this passage, Fiori brought forth the essence of dialogue in developing people's *critical consciousness*. He advanced that people's consciousness comes from a critical view of the world—and is not found in an empty space. Therefore, only in dialogue that is mediated by the same world can people communicate to develop consciousness, *conscientização*. On the other hand, communication is broken when the worlds of the people who come together in dialogue are not the same (Freire, 2017).

In the same vein, Freire emphasized the importance of dialogue in an emancipatory pedagogy. According to him, dialogue is an *existential necessity*, for it is the coming together of people who, in speaking the word, name the world and, through *united reflection*, transform it. This process is the antithesis of banking education, which is characterized by the one-directional deposit of one person's ideas into another, leaving no room for the act of creation and re-creation that is implicit in learning. True education creates a space where teachers and students learn

from, and with, each other through dialogue (Freire, 2009). However, the teacher's act of learning from the students cannot merely rely on learning about what students know.The teacher must develop a practice that will lead students to become aware of their self-knowledge and re-create it in light of their culture and living situations (Freire & Macedo, 1987). Giroux stressed this point, stating:

> [It] is not merely a matter of learning about what students might know; it is more importantly a matter of learning how to renew a form of self-knowledge through an understanding of the community and culture that actively constitutes the lives of one's students. (Freire & Macedo, 1987, p. 22)

In other words, through dialogue, students *speak the word as they read the world*, developing a critical consciousness*, conscientização/conscientización*, which is central to Freire's liberating pedagogy. Notably, the relation between language and consciousness dates back to Vygotsky's work. In *Thought and Language*, Vygotsky (2012/1934) discussed the relationship between word and thought, refuting earlier studies that claimed speech and thought to be independent and that their relation was only mechanical. In this work, Vygotsky also brought to bear his concept of consciousness, which he connected to language and thought. He ended his book by asserting:

> …not only one particular thought but all consciousness is connected with the development of the word. The word is a thing in our consciousness, as Ludwig Feuerbach put it, that is absolutely impossible for one person, but that becomes a reality for two. The word is a direct expression of the historical nature of human consciousness (2012, p. 271).

The close relation between language and consciousness in the above passage is consistent with the theoretical principles of Freire's pedagogy. In the next section, I discuss literacy, which is intrinsically related to language and consciousness, and is at the heart of much of Freire's work.

Literacy and Conscientização-Conscientización

"The alphabet is an abolitionist. If you would keep a people enslaved, refuse to teach them to read" (Education in the Southern States, 1867, as cited in Goodman & Cocca, 2014). Until the 1860s it was a crime to teach slaves how to read in the United States, and later, literacy tests kept freed slaves and their descendants from voting until the 1960s. Goodman and Cocca (2014) pointed out that those responsible for these laws "understood well the powerful links between literacy, freedom, and political self-determination" (p. 210). The authors believed that the low educational achievement of the poorest youth in the United States is a political problem. They brought up the inequity of the school financing system specific to this country by explaining that schools in the United States typically are financed according to local property taxes. They gave the example of the Southern states, where this system provides minimal funds to the schools that serve impoverished students, in contrast with the greater funding it provides for schools that serve the wealthier. Therefore, poorer students, whose social-economic conditions of poverty impact their health, emotional wellbeing, literacy, and school performance, attend under-resourced schools with high needs (Goodman & Cocca, 2014). The authors stated, "The dropout rate for students in the lowest 25% of family incomes is about five-and-one half times greater than the dropout rate for students in the highest 25% of family incomes" (p. 211). They recommended development of a youth literacy program that will empower students' voices and provide them with an agentic identity, as they take part in community activism to achieve more just and equitable opportunities. This concept of literacy—*critical literacy*—can be traced

back to Antonio Gramsci, an Italian Marxist social theorist (1891-1937), who advanced that literacy could either promote the dominant ideology or become an emancipatory project that enabled people to participate in the transformation of their society (Freire & Macedo, 1987). It is this emancipatory construct of literacy that is the essence of Freire's work.

Accordingly, in *Literacy: Reading the Word and the World*, Freire and Macedo (1987) also proposed that literacy can either be the means for the reproduction of the dominant culture, or an emancipatory construct that promotes democracy. Therefore, for Freire, literacy cannot be viewed merely as a technical process of acquiring reading and writing skills; "rather, it is preceded by and intertwined with knowledge of the world. Language and reality are dynamically interconnected" (p. 29). In emphasizing that critical literacy is more than the simple mechanical repetition of syllables to make up words, Freire (1985) asserted:

> [Critical literacy] develops students' consciousness of their rights, along with their critical presence in the real world. Literacy in this perspective, and not that of the dominant classes, establishes itself as a process of search and creation by which illiterate learners are challenged to perceive the deeper meaning of language and the word, the word that, in essence, they are being denied (p. 10).

Freire's emancipatory literacy approach is based on the relationship between people and the world, as one develops *conscientização* toward his/her social context on one hand, and the connection between language and reality on the other.

Language is the means for naming one's reality. In Berthoff's words, it is "the means of making those meanings that we communicate" (Freire & Macedo, 1987, p. xiv). For Freire, to become self-critical toward one's cultural experience is to *read the world*, which is imperative in preceding the act of *reading the word* (Freire, 1985; Freire & Macedo, 1987). Weffort stated, "*As*

palavras não existem independentemente de sua significação real, de sua referência às situações" (Freire, 1967, p. 5). [Words don't exist independently from their meaning within reality nor from reference to real situations]. Therefore, in developing a literacy program, Freire (1985) insisted that words come from the *word universe* of the people who are learning to read, for they express "their language, their anxieties, fears, demands, and dreams" (p. 35). It was on this theoretical foundation that Freire created his renowned method of *alfabetização*, which he brought to Africa, Latin America, and the United States (De Oliveira & Dos Santos, 2017).

Central to Freire's literacy method is the acquisition of words, *generative words* that are drawn from people's everyday language as they discuss topics called *generative themes* important to their lives. These discussions take place among participants within cultural circles, where they do a critical analysis of their existential situations, developing *conscientização* toward their reality (Leher & Vittoria, 2015). The *cultural circle* was a fundamental piece in the Popular Education Movement that Freire created in Brazil and directed before the coup d'état of 1964. According to him, the cultural circle is a basic institution of education and popular culture. In Freire's view, cultural circles replace traditional schools, which are based on *authoritarian relations*. In cultural circles the *debate coordinator*, whose task is promoting dialogue, substitutes for the teacher, who historically deposits his/her knowledge into the students. Cultural circle participants take the place of students, who are traditionally characterized by passivism, and the dialogue among participants and coordinator replaces the traditional lectures (Freire, 1967). Instead of a *decontextualized curriculum*, alien to the culture and to students' needs, participants learn to read through generative words that are incorporated in realistic problem situations, represented by images (*codifications*) of their life experiences (Freire, 1985; Gomez & Penagos, 2013).

When Freire first experienced his method of *alfabetização* in Rio Grande do Norte, he knew that the people's illiteracy could not be resolved through a practice that addressed men and women removed from their sociocultural reality (Gomez & Penagos, 2013). In addition, Gomez and Penagos explained that in Latin American culture, belonging to a circle provides participants with self-esteem, confidence, and commitment with other people. In cultural circles, participants gain the solidarity and comfort to discuss their realities. Furthermore, the authors stated that as the word *circle* indicates, participants sit in a circle shape that allows the circulation of knowledge and feelings to flow among the group. In the next section, I discuss Freire's process of implementation of his method of literacy.

Implementation of the Freirean Pedagogy for Literacy

In *Educação como Prática da Liberdade*, Freire (1967) offered a detailed account of the planning and the different phases that go into the practice of his methodology. There are two phases in the implementation of Freire's method of literacy: *Conscientização* and *Alfabetização*. Freire believed that the first step in *conscientização* was to raise people's awareness of their importance in the world through the anthropological concept of culture. He explained the different steps that he and his assistants followed in teaching people how to read.

Conscientização. First, the participants were led to discover that *all people create culture with their work*, transforming the natural world. To accomplish the first step, the coordinator of the group, referred to as the cultural circle, used paintings of *codified life situations*, depicting nature versus culture, to facilitate the learners' critical understanding that culture is the result of all human creation. Freire asked Francisco Brennand, a well-known artist, to draw pictures of existential situations that prompted debates among the people in the group about the difference between the natural world and the world of culture, and people versus animals (Brown, 1978).

People came to the realization that a clay figure made by the people is as much culture as a sculpture made by an artist. The group gained consciousness of their *importance in the world and with the world* (Freire, 1967).

The second step in *conscientização* was to raise people's awareness that reading and writing are essential to their participation in the world of written communication. Through debates around the codified life situations in pictures, the participants, in addition to gaining consciousness of their importance as culture-makers through their work, discovered the urgency of learning to read in order to participate in a literate world. To accomplish the second step, the group coordinator used pictures of codified life situations depicting the importance of knowing how to read and write. For example, in analyzing a picture of a hunter who is carrying a gun, a more complex tool than a bow and arrow, people become aware that they must be able to read directions in order for them to make the gun. "Moreover, in this culture only those who can read can earn enough money to buy guns, so access to their use is controlled by the literate members of this culture" (Brown, 1978, p. 18). At this point, the participants gained critical consciousness of their need to learn to read and become *agents of their own learning* (Freire, 1967).

Alfabetização/alfabetización. The second phase of Freire's method of literacy, *alfabetização/alfabetización*, is the execution of the educational practice of the model, which consists of six steps.

Vocabulary and culture. The first step focuses on learning about the vocabulary and culture that are part of the participants' universe. To accomplish this step, Freire and his colleagues visited the community to investigate people's *vocabulary universe*, recording *emotionally charged words* as well as words that express people's existential reality. Interviews

with the people also captured *moments of beauty* in people's way of speaking. Interviewers learned about their anxieties, frustrations, beliefs, and hopes.

Generative words. The second step in *alfabetização/alfabetización* consists of identifying *generative words*. The group coordinator looks over the list of words recorded during the investigation of the community and identifies: (1) words that are relevant to the learners and that could generate passionate discussions about their realities—social and political; (2) words containing all the phonemes/graphemes in Portuguese or Spanish; and (3) trisyllabic words with direct syllables—CV-CV-CV, for example, *la-ti-na*, *pe-lo-ta*, *ma-mi-ta*.

Generative themes. The third step involves discussions of themes (generative themes) generated by these generative words. To accomplish this step, the group coordinator prepares pictures or slides of codified problem-situations inherent to the people of the group. Led by the coordinator, the participants discuss these situations. Within these discussions, the generative words are introduced orally. For example, for the word *tijolo* (brick), the group coordinators (teachers) show a picture of a construction site using bricks (see Figure 11).

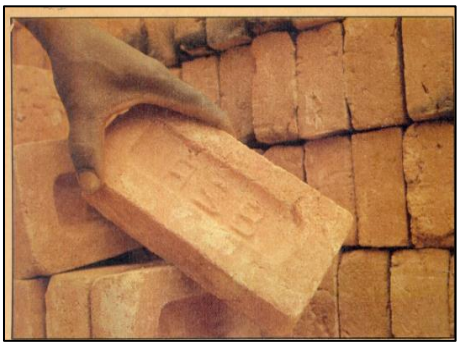
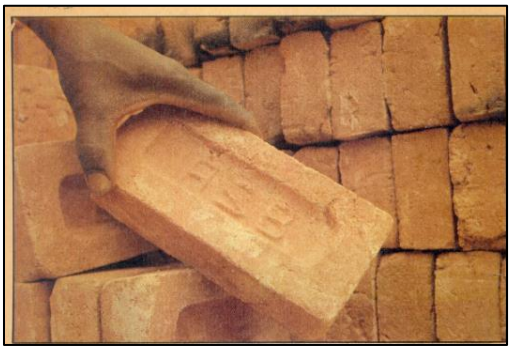


*Figure 11.*Poster representing the generative picture *tijolo* [brick].
Retrieved rom http://acervohistoricodolivroescolar.blogspot.com/2011/05/mobral.html

The group then engages in discussions about the picture, from building with bricks to housing as a community problem and other topics pertinent to the learners' lives (Freire, 1967).

Graphic representation. The fourth step in *alfabetização/alfabetización* consists of the *graphic representation of the generative word* below the picture. To accomplish this step, after the discussion of the codified situation in the picture, the group coordinator introduces a picture of the generative word, *tijolo* (brick) with the written word below (see Figure 12).



tijolo

Figure 12. Poster with generative picture and the generative word below.
Retrieved from http://acervohistoricodolivroescolar.blogspot.com/2011/05/mobral.html

In this way, the learners are led to associate the pictorial representation of "brick" with its symbolic representation as a written word.

Alphabetic representation. The fifth step consists of the presentation of the generative word alone. To accomplish this step, the coordinator projects the generative word in writing without the picture (see Figure 13).

tijolo

Figure 13. Poster with the generative word without picture.
The goal of this step is to lead learners to focus on the configuration of letters that constitute the word.

Phonemic families. The sixth step is the introduction of the generative word separated into syllables (see Figure 14.). The coordinator presents the word *ti-jo-lo* (brick), pointing to

each syllable of the word, which the group refers as *pieces*, reading it aloud with the participants. This *syllabic representation* provides a portal to understanding the creation of words from syllables that combine consonants and vowels.

Figure 14. Poster with the generative word separated into syllables.

Following the syllabic representation, the coordinator projects the *phonemic families* that make up the word being studied and, in this way, the group learns the vowels. For example, for the word *ti-jo-lo*, they learn the different combinations of the syllable *ti* with the other vowels—*ta, te, ti, to, tu*. Then the second syllable combinations, *jo—ja, je, ji, jo, ju*, and the third syllable *lo—la, le, li, lo, lu*. The introduction of the *card of discovery* (see Figure 15) with the three phonemic families is, according to Freire, the most important moment for the learners.

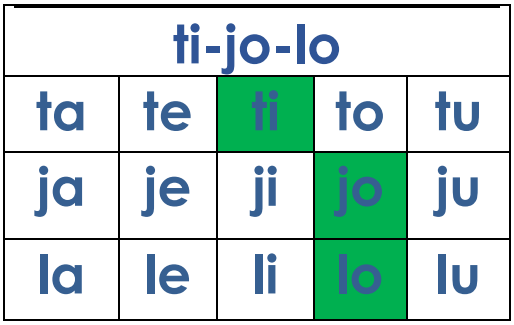


Figure 15. Discovery card with the three phonemic families.

In selecting generative words from the list obtained from the investigation of people's universe, the coordinators must follow the following criteria:

Graphophonic sequence. Graphemes range from a simple three-syllable word with direct syllables to complex-syllable words. Introducing this process takes into account the language structure of Spanish and Portuguese, which are transparent syllabic languages.

Emotional charge. Words must be emotionally charged. These words must respect and value the students' experiences, language and cultures, which are foundational in promoting their engagement with learning to read through Spanish instruction.

Image generativity. Pictures representing the generative words are used for the process of *conscientización* before students are introduced to *generative words* and *discovery cards*.

Combinability. The sixth step focuses on making new words. To accomplish this final step, the coordinator projects the card of discovery with the generative word separated into syllables and all the phonemic families (see Figure16). The coordinator reads each syllable horizontally and vertically aloud as he points to it while the group repeats in a chorus. At this point the educator shows the participants that the different syllables of the generative word can be put together to make the same word or new words. For example, some possible syllable combinations from the word *tijolo* are: *lu-ta*, which will make the word *luta* (struggle) or *lo-ja*, which will make *loja* (store) or *la-ta*, which will make *lata* (tin, can), among many others.

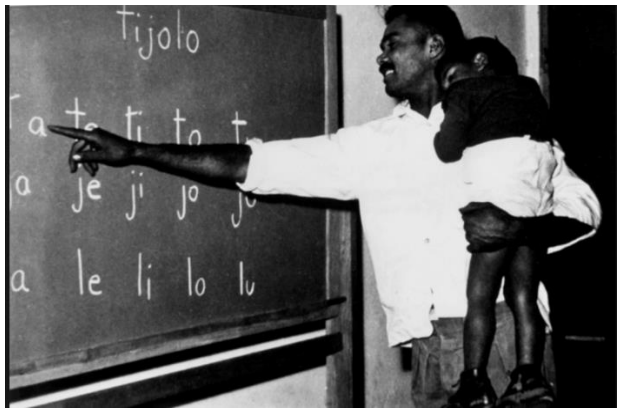


Figure 16. Participant Points to the syllables in the *Discovery Card.*
From http://walkerart.org/collections/publications/performativity/deliterate-cinema/

At the end of these oral exercises, Freire reports that the group goes home with an assignment: to make as many words as they can with the learned phonemes. The combinations of syllables that make actual words are called *palavras do pensamento* (*thinking words*). In contrast, *palavras mortas* (*dead words* or *nonsense words*) are words that the participants make but that do not exist (Freire, 1967). After this process, Freire tells us that the group began writing in a few days:

> *Como se explicar que um homem analfabeto, até poucos dias, escreva palavras com fonemas complexos antes mesmo de estudá-los? É que, tendo dominado o mecanismo das combinações fonêmicas, tentou e conseguiu expressar-se graficamente, como fala* (p. 119). [How can one explain that an illiterate man, until just a few days ago, can write words with complex phonemes even before studying them? It is because having understood the mechanism of phonemic combinations, he/she tried and was able to express himself graphically, the way he/she speaks].

Based on the great success achieved in teaching people how to read and write through Freire's method, a literacy program was planned in 1964 under the Goulart government, involving more than 20,000 circles of culture throughout Brazil. However, because of the coup d'état, this program was never implemented.

It was Freire's success in teaching adults to read so efficiently that inspired me in creating a literacy model that incorporates his method of *alfabetização*/*alfabetización* within the UDL framework, an educational approach that provides learning accessibility to all. However, in the creation process of the new literacy/*alfabetización* model, I followed the advice Freire leaves with us in his book *The Politics of Education* (1985). He wrote:

> …those who put my experience into practice must strive to re-create it and also rethink my thinking. In so doing, they should bear in mind that no educational practice takes

> place in a vacuum, only in a real context—historical, economic, political, and not necessarily identical to any other context. (p. 12)

It is with the deep understanding of the Freirean pedagogical concepts and principles described above that I combined them with UDL framework (see p. 123) and developed the new Freire-UDL Literacy-*Alfabetización* Model and *Guide* for nonliterate Spanish-speaking SIFE/SLIFE who attend middle or high school in the United States, and their teachers. These students urgently need to become readers and thinkers, regardless of their sociocultural conditions. They can benefit from the theoretical and practical outcomes of Freire's mindset and pedagogical principles, as well as the practices of first reading the world to read the word.

Next I answer research question 2, which addresses the necessary procedural steps to integrate the UDL Framework with Paulo Freire's method of *Alfabetización* to create the new literacy/*alfabetización* model.

Research Question 2

What were the necessary procedural steps to integrate UDL with Paulo Freire's method/pedagogy of Alfabetización *to create the Freire-UDL Literacy-*Alfabetización *Model™ for practical use with nonliterate Spanish-speaking SIFE/SLIFE?*

To address this question, the researcher followed Phase 1 as described in Chapter 4, which consisted of selecting, reviewing, and studying the relevant literature and support materials, as well as becoming well versed in Freire's pedagogy of literacy/*alfabetización* addressed in Research Question 1. The researcher also reviewed the relevant literature on UDL.

Procedures Used to Create the Freire-UDL Literacy-*Alfabetización* Model

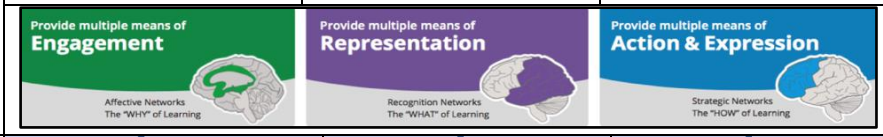
To create this model, I began by selecting documents and studying in depth the literature and other resources on Paulo Freire's methodology of *alfabetización* and *conscientización* in

Spanish, Portuguese, and English as described above, as a precursor to creating this model. After that I reviewed the most current UDL research and related literature in reading. The documented effectiveness of Freire's method of *alfabetización* and the accessibility that UDL provides to all learners were the catalyst for the combination of these two theoretical frameworks in creating a promising literacy model for SIFE/SLIFE (see pp. 191-193 in the *Teacher's Guide* for Freire's Principles).

Integration of Freire's Principles with UDL Principles. The Freire-UDL Literacy *Alfabetización* Model was created, re-created, and revised several times with input from an expert in both areas. Table 4 provides the framework for combining Freire's three pedagogical principles (Pedagogia da Autonomia) with the three UDL principles, which resulted in creating the theoretical foundation of the Freire-UDL Literacy Model, included in the *Teacher's Guide*.

Table 4

Freire and UDL Integration Framework

Freire	**UDL**		
	Engagement	**Representation**	**Action & Expression**
			
Teaching as a human act	√	√	√
Teaching is not only transfer of Knowledge	√	√	√
Teaching requires ongoing learning	√	√	√

Then I designed several drafts of a visual representation of this model, and got feedback from an expert in both UDL and Freire's *Alfabetización*, until it reflected a clear conceptual illustration (see *Teacher's Guide*, *p.* 201). The visual representation of the model (see Figure 17) informed the writing of the *Teacher's Guide* and, subsequently, the process of its validation.

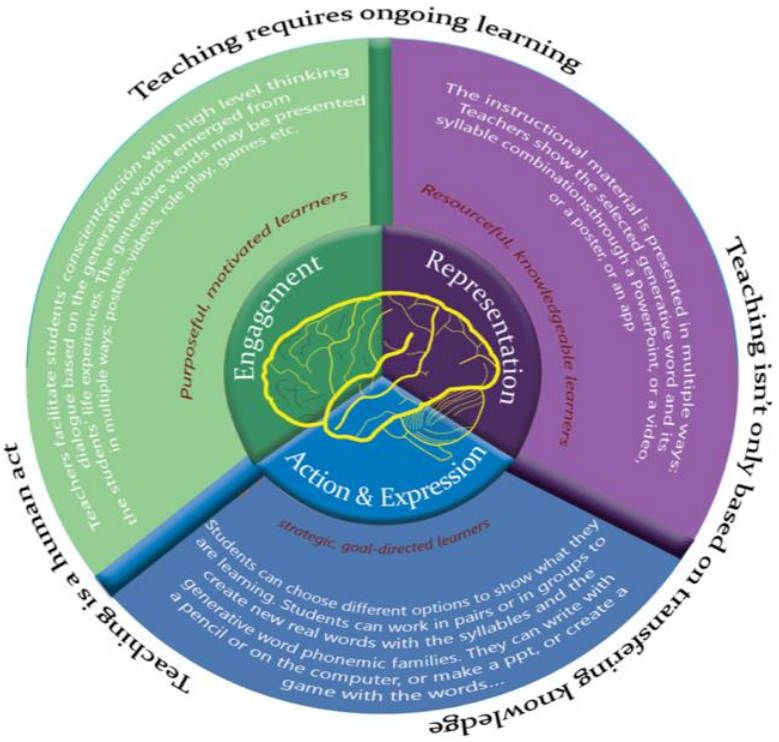


Figure 17. Visual representation of the Freire-UDL Literacy Model.

Freire-UDL Principles

The process of integrating the UDL principles with Freire's principles in a visual representation brought forth the three Freire-UDL Principles:

Freire-UDL Principle 1. Multiple Means of Engagement in *Conscientización* and Generative Picture Word Use

Freire-UDL Principle 2. Multiple Means of Representation of Generative Words

Freire-UDL Principle 3. Multiple Means of Expression of Encoding Based on the Generative Words.

For more details (see pp. 222-224). These principles are the theoretical foundation of the Freire-UDL Literacy-*Alfabetización* Model and the *Teacher's Guide*.

Next I answer research question 3, which addresses the creation of the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* that was informed by the visual representation of the model and the procedures for its validation. For the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide,* see Chapter 6.

Research Question 3

How to create and validate the Freire-UDL Teacher's Guide that applies the Freire-UDL Literacy-Alfabetización *Model ™?*

In developing the pilot version of the *Freire-UDL Literacy* Alfabetización *Teacher's Guide*, I began by designing a visual representation of the model, combining Freire's pedagogical principles with the UDL principles, creating the Freire-UDL principles that inform the theoretical foundation of the application of the model presented in the previous research question. I then prepared the *Teacher's Guide*, which was revised several times and was composed of four major sections:

Section 1—Theoretical Foundations of the Freire-UDL Literacy Model;

Section 2—Understanding *Conscientización* and using it within *Alfabetización*;

Section 3—Implementation of *Alfabetización*, and

Section 4—Assessment

Before the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* was completed for the workshop validation study, it had 11 revisions. After the validation workshop, another revision

of this *Guide* took place to incorporate the input from the volunteer Spanish bilingual teachers who were potential users of the *Guide* and related resources. It was important to have teachers review and give their input through the data-gathering tool so that the model and *Guide* best address SIFE teachers' needs. It is imperative to implement an educational approach to facilitate the teaching-learning of nonliterate Spanish-speaking SIFE as a matter of educational equity.

Procedures for Validation of the Freire-UDL Pilot Version of the *Teacher's Guide*

In preparation for the validation study of *Teacher's Guide*, I used a snowball sampling method to identify the bilingual SIFE teacher participants. I contacted a SIFE teacher at a middle school in Boston to let her know about my research project and to inquire about: (1) teachers' interest in taking part of this validation study; (2) teachers' availability and contact emails; and (3) recommendations for other Bilingual Spanish SIFE teachers. A date was set for the validation of the study, and I hand-delivered and also emailed the invitation/consent letter (see *Appendix D*) to the teachers who had shown interest in being part of this work.

Setting, Participants, and Data-Gathering Tool. The *Teacher's Guide* validation workshop was conducted in a Spanish dual-language middle school in Massachusetts, after the school day had ended.

Participants' Profiles. The voluntary participants were 10 Massachusetts SIFE teachers. All the participants were women and among them, there were two Spanish-speaking high school SIFE teachers, two Spanish-speaking middle school SIFE teachers, three Spanish-speaking elementary SIFE teachers, a special needs middle school teacher of Spanish-speaking students, and two Spanish-speaking ELL middle school teachers from the general education program. In addition, two outside Spanish-speaking SIFE teachers took part of the validation study. Each teacher received the Teacher's Guide and participated in the validation workshop.

Workshop Agenda. The workshop had the following written agenda:

- Welcome, Introduction, purpose of workshop, and letter of consent
- Foundational Knowledge
- Guided Review of the *Freire-UDL Literacy Guide*
- Guided Practice with lesson 1 using the generative word '*pelota*'
- Administration of the Freire UDL Literacy Validation Questionnaire
- Closing

Workshop Materials. Workshop materials were provided as follows:

- Pilot *Freire-UDL Literacy*-Alfabetización *Teacher's Guide*
- Consent
- Freire-UDL Literacy-*Alfabetización* Validation Questionnaire
- Printed Poster Samples
- PPT Workshop
- PPT Generative Words

For a review of each of the above agenda items, see Appendix C, Validation of the *Teacher's Guide*

The *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* was designed by this researcher to operationalize the Freire-UDL Literacy-*Alfabetización* Model also created by this researcher as a key component of this research study. Its focus was to provide educators with an effective literacy model to guide them in teaching nonliterate Spanish SIFE/SLIFE how to read in 30 to 40 hours. This chapter describes the validation of the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide*, including the theoretical literacy model to address current nonliterate Spanish-speaking SIFE's needs to learn how to read in the shortest amount of time.

Introduction of the Study to Teachers. The validation of the *Guide* included a validation workshop, which was instrumental in the finalizing process of the *Freire-UDL Literacy*-Alfabetización *Guide*. It was important to learn from the teachers about the usefulness and practicality of this approach and to include their feedback in completing the development of the *Teacher's Guide* to effectively meet teachers' and students' needs.

Before the Workshop. It was important to test out the guide with practitioners who teach nonliterate Spanish-speaking SIFE to learn how to read. The selection method was done by meeting one of the SIFE teachers at a middle school, who volunteered to assist in reaching out to other SIFE teachers through an email explaining the purpose of the workshop and the possible benefits. Teachers were informed about the purpose and the benefits of this workshop. They would receive a copy of the pilot guide and upon completion of this study, they would also receive the final copy of the Teacher's Guide that included their input.

Bilingual Spanish Teacher Participant Profiles. A total of 10 Massachusetts Spanish-speaking teachers from a middle school and a high school were invited via email to participate in this validation study workshop of the *Freire-UDL Literacy-Alfabetización Model Guide* that took place after school for over 3 hours. All the workshop participants were bilingual Spanish-speaking women: two high school SIFE teachers, two middle school SIFE teachers, three elementary SIFE teachers, a special needs middle school teacher of Spanish-speaking students, and two Spanish-speaking ELL middle school teachers from the general education English program. In addition, this guide was sent to two Spanish-speaking teachers as outside reviewers, a man and a woman, one in Virginia and one in California, respectively.

Data Collection Validation Tool. The Freire-UDL Literacy-*Alfabetización* Model Validation Questionnaire was developed and validated. It included two types of items: A Likert

Scale 1-5 (from 1-Least, 3-Ok, and 5-Most); and open-ended questions organized into five sections: Section 1—Theoretical Foundation, Section 2—*Conscientización*, Section 3—*Alfabetización*, Section 4—Lesson Demonstration, and Section 5— Assessment.

The Workshop. The workshop took place in a public middle school in an urban school district after the school day had ended. All participants were volunteers who came to the workshop after a personal or follow-up email invitation. Only 9 of the 10 participants in the workshop completed the questionnaire, in addition to the 2 outside reviewers. After signing in at the workshop site, each teacher received a folder with her name, containing an agenda, a consent form, the Freire-UDL Teacher's Guide, and the Validation Questionnaire. Other materials included a definition of terms sheet, and a copy of the visual representation of the model.

After introductions, the participating teachers filled out and signed the consent form (see *Appendix D*). The researcher began the workshop by reviewing the purpose of the research study, provided the overview of each session, and pointed out the anticipated benefits to teachers and students. She used a PPT, a sample of the literacy materials, and a practical demonstration of the steps in the process of *alfabetización*, using the first generative word, *pelota*, for the example (see *Appendix C* for the workshop agenda). The workshop proceeded as follows:

1—Introduction. Participants reviewed the documents in the folders, then read and signed the consent form. Following Paulo Freire's pedagogy in developing and valuing community, teachers participated in the activity, "What Is in a Name": participants in pairs got to know one another by asking and answering the following questions: (1) Who gave your name? (2) Are you named after anyone? (3) Does your name have any specific significance? (if you don't know, you can look up later in http://www.behindthename.com/) (4) Where does your last name come

from (national/ ethnic/ cultural heritage)? Is there any other information that you would like course participants to know about your name?

2—Foundational Knowledge. The researcher provided the context and the rationale for this work, including the challenges teachers face in teaching literacy to SLIFE, the definition of essential terms, the overview of the Freire-UDL Literacy-*Alfabetización* Model, and the benefits to SIFE teachers.

3—Guided Review. Participants reviewed the *Freire Literacy*-Alfabetización *Teacher's Guide* in small groups. After reviewing the model and the three principles that created the framework for this approach and for each section of the *Guide*, teachers were invited to make comments and ask any questions.

4—Sample of a Literacy Practice. Participants experienced a sample lesson showing implementation of procedures of the Freire-UDL Literacy-*Alfabetización* practice. This component of the workshop was the most meaningful to the teachers in this sample. This step consisted of a practical demonstration of a *conscientización* experience exercise and a teaching practice of the first generative word, *pelota*, through the use of a cooperative learning structure, Quiz-Quiz-Trade. Each participant was given an index card with one question about the generative word that facilitated the dialogue necessary to implement the process of *conscientización*. Teachers walked around the classroom at the sound of Ricky Martin's song *La Copa de la Vída*. When the music stopped, they turned to the closest person and asked the question on the card. After answering each other's questions, students traded cards and, as the music resumed, they began walking again, repeating the exercise. This fun activity led students to a meaningful dialogue.

The researcher then demonstrated the six steps in the implementation of *alfabetización*, using the first generative word, *pelota*, by connecting it to the *Guide* and demonstrating each step, using different options. The steps included:

- Step A. Introducing the Picture Related to the Generative Word (pelota) and Discussing/Dialoguing the Ideas/Themes Generated by the Picture with the Aid of Guiding Questions
- Step B. Introducing the Generative Word Below the Picture
- Step C. Introducing the Written Generative Word Alone
- Step D. Introducing the Generative Word Separated into Syllables
- Step E. Introducing the Discovery Card
- Step F. Creating/Spelling New Words

5—Closing. The researcher distributed a copy of the pilot guide to each Spanish bilingual teacher along with a $10 gift certificate to Dunkin' Donuts and a bag containing school supplies. (See Chapter 6 for details). At the close of the workshop, the teachers were invited to complete the Validation Questionnaire.

Teacher's Guide Workshop and Validation Findings

The researcher collected all completed validation questionnaires and tabulated all the teacher responses with simple descriptive statistics. The following is a summary of the participants' comments and suggestions about the *Freire-UDL Literacy* Alfabetización *Teacher's Guide*.

The validation of the *Freire-UDL Literacy* Alfabetización *Teacher's Guide* questionnaire for the teachers consisted of five sections. Each section of the validation questionnaire featured

two types of questions: A Likert Scale 1-5 (from 1-Least, 3-Ok, and 5-Most) and open-ended questions.

Validation results: Section 1—Theoretical Foundation

Section 1 Theoretical foundation	**1 Least**	**2**	**3 Ok**	**4**	**5 Most**	**No. of Responses**
1. How clear is the overview of this model of *alfabetización*?	0 0%	0 0%	1 9%	4 36%	6 55%	11
2. How clear is the concept of integrating Freire's Pedagogy with the UDL Framework in creating an efficient literacy model for SIFE?	0 0%	0 0%	2 18%	6 55%	3 27%	11
3. How familiar were you with UDL in general before this session?	1 10%	0 0%	3 30%	5 50%	1 10%	10
4. How familiar were you with Freire's Pedagogy before this session?	2 18%	2 18%	2 18%	5 45%	0 0%	11
Averages	0.75 8%	0.50 5%	2 19%	5 46%	2.5 23%	10.75
5. Do you recommend any modifications in this section? If you do, please explain.						
6. Any further comments that you may have about this section of the teacher's guide, please write in this space.						

Questions 1 and 2. Questions 1 and 2 of the first section of the validation survey addressed the clarity of the Freire-UDL theoretical model. On Question 1, 91% of the participants assessed the clarity of the model over at 4 or 5 on the Likert scale (i.e., mostly clear or very clear). On Question 2, 82% assessed the clarity of the model's integration of Freirean pedagogy with the UDL framework at 4 or 5 (mostly clear or very clear), indicating that these teachers found that the concept of integrating Freire's pedagogy with the UDL framework in creating an efficient literacy model was clearly conveyed in the *Guide*.

Questions 3 and 4. Questions 3 and 4 of the first section of the validation survey addressed teachers' familiarity with the UDL framework and with Freire's pedagogy. On question 3, 90% of the participants indicated that they had at least some background knowledge about UDL (i.e., 3, 4, or 5 on the Likert scale); only 10% (one respondent) had no familiarity. On Question 4, 63% indicated that they had at least some background knowledge about Freire's pedagogy (i.e., 3 or 4 on the Likert scale); but none were very familiar (i.e., 5 on the scale), and 36% were either unfamiliar or mostly unfamiliar (i.e., 1 or 2 on the Likert scale).

Summarizing the results of these first four questions, it can be concluded that although teachers were predominantly unfamiliar with Freirean pedagogy, the workshop presentation and practice left them believing that it integrated well with the UDL framework, and that combining the two frameworks represented an efficient and effective approach to literacy education.

Questions 5 and 6. The responses to the follow-up questions, although few in number, provided useful data. There were no responses to question 5, regarding modifications to the overview. In response to the open-ended question 6 in this section of the Validation Guide, only two participants shared comments. One teacher asked the question, why the use of the acronym SIFE instead of SLIFE? The acronym SLIFE was added to the *Guide*. The other participant

commented that the guide was beautiful and well organized, but perhaps teachers needed more time to better process it. This is a limitation of this study in relation to the content of the guide, which will be discussed under limitations of the study.

Validation results: Section 2— Conscientización

Section 2 Conscientización	**1 Least**	**2**	**3 Ok**	**4**	**5 Most**	**No. of Responses**
7. How clear is the concept of Conscientização / Conscientización ?	0 0%	0 0%	0 0%	5 45%	6 55%	11
8. How clear are the directions in guiding you as a teacher to support the development of students' Conscientização / Conscientización ?	0 0%	0 0%	0 0%	5 45%	6 55%	11
Averages	0 0%	0 0%	0 0%	5 45%	6 55%	11
9. Do you recommend any modifications in this section? If you do, please explain.						
10. Any further comments that you may have about this section of the teacher's guide, please write in this space						

Questions 7 and 8. Results on questions 7 and 8, regarding teachers' sense of clarity following the workshop on the concept of *conscientização / conscientización*, and on the directions addressing this concept in the *Teacher's Guide,* were overwhelmingly positive. On Question 7, clarity of the concept of *conscientização / conscientización* as presented in the workshop and the *Teacher's Guide*, 100% of the respondents, including both workshop participants and outside reviewers, reported their assessment at either 4 or 5 (i.e., mostly clear or

very clear) on the Likert scale. Responses to Question 8, regarding the *Guide's* directions in supporting students' *conscientización*, were identical; 100% of workshop participants and outside reviewers rated the *Guide* as mostly clear or very clear (i.e., 4 or 5 on the Likert scale).

Questions 9 and 10. There were only three comments in response to question 9, regarding presentation of *conscientización*. Among the participants in the workshop, one of the bilingual teachers reported that she found the activity in developing student's *conscientización* to be very helpful. One of the outside reviewers suggested that the *Guide* should provide an explanation of phonemes, graphemes, diphthongs, digraphs, perhaps through footnotes. This respondent pointed out that caring family members and friends, who feel the need to teach their own children in the absence of a solid school program, would find these explanations helpful. The requested information was added to the post-validation revision of the *Teacher's Guide.* There were no responses to the request for further comments in question 10.

***Validation Results: Section 3*— Alfabetización**

Section 3 – *Alfabetización*	**1 Least**	**2**	**3 Ok**	**4**	**5 Most**	**No. of Responses**
11. How clear is the concept of *alfabetización* through the new model?	0 0%	0 0%	1 9%	4 36%	6 55%	11
12. How clear are the directions in guiding you as a teacher to teach this method?	0 0%	0 0%	0 0%	4 36%	7 64%	11
Average	0 0%	0 0%	0.5 5%	4 36%	6.5 59%	11
13. Do you recommend any modification in this section? If you do, please explain						
14. Any further comments that you may have about this section of the teacher's guide, please write in this space.						

Questions 11 and 12. Questions 11 and 12 addressed the concept of *alfabetización* in the Freire-UDL Literacy Model, and instructions to teachers about implementing this method. On question 11, 91% of the workshop participants and outside reviewers, reported that the concept of *alfabetización* and its role in the model was mostly clear or very clear in the *Guide* (4 or 5 on the Likert scale). On question 12, concerning the clarity of directions in implementing *alfabetización,* 100% of the participants and outside reviewers reported that the instructions in the *Guide* were mostly clear or very clear (4 or 5 on the Likert scale).

Questions 13 and 14. There were no responses from workshop participants to questions 13 or 14, regarding further comments. One of the outside reviewers pointed out that she found that the chosen generative words and the suggested questions in the development of *conscientización* to be particularly good in leading the students to a critical analysis of their lives.

Validation Results: Section 4—Lesson Demonstration

Section 4 Lesson Demonstration	**1 Least**	**2**	**3 Ok**	**4**	**5 Most**	**No. of Responses**
15. How clear was the demonstration of *conscientización*?	0 0%	0 0%	0 0%	5 45%	6 55%	11
16. How clear was the demonstration of teaching the method of *alfabetización*, using the new model?	0 0%	0 0%	0 0%	5 45%	6 55%	11
Averages	0 0%	0 0%	0 0%	5 45%	6 55%	11
17. Do you recommend any modifications in this section? If you do, please explain.						
18. Any further comments that you may have about this section of the teacher's guide, please write in this space/						

Questions 15 and 16. Questions 15 and 16 addressed the demonstrations of the teaching methods of *conscientización* and *alfabetización* in the workshop, using the new Freire-UDL Literacy-*Alfabetización* Model. On question 15, regarding *conscientización*, 100% of participants found the demonstration either mostly clear or very clear (i.e., 4 or 5 on the Likert scale). On Question 16, regarding *alfabetización*, 100% of participants found the demonstration either mostly clear or very clear (i.e., 4 or 5 on the Likert scale). Because the outside reviewers were not present for the demonstration, they evaluated the lesson plan in the *Guide.*

*Questions 17 and 18***.** Only one participant responded to items 17 or 18, requesting further comments. This teacher expressed that she would have liked more activities in the processes of *alfabetización* and *conscientización*. She suggested adding a video that showed teacher and students going through a session.

Validation Results: Section 5—Student Assessment Practices

Section 5 **Student Assessment Praxis**	**1** **Least**	**2**	**3** **Ok**	**4**	**5** **Most**	**No. of Responses**
19. Should assessment be both a self-assessment and a peer assessment after every lesson?	1 10%	0 0%	3 30%	2 20%	4 40%	10
20. Should students use technology in assessment of their newly acquired skills such as *Kahoot*?	0 0%	0 0%	1 10%	4 40%	5 50%	10
Averages	0.5 5%	0 0%	2 20%	3 30%	4.5 45%	10

21. Do you recommend any modifications in this section? If you do, please explain.	
Section 5 **Student Assessment Praxis**	
22. Any further comments that you may have about this section of the teacher's guide, please write in this space.	
23. As a participant in this study you will be receiving a final copy of this *Guide*. Would you like more professional development with regard to using this method of teaching literacy in less than 40 hours? If yes, in what areas would you like more professional development in regards to using this method?	

Questions 19 and 20. Only 10 of the 11 responders answered these questions. On Question 19, regarding whether students should both assess themselves and receive peer assessments, responses were mixed. A majority, 60%, favored a combination of student self-assessment and peer assessment following every lesson (i.e., 4 or 5 on the Likert scale); 30% (2 respondents) had no opinion (3, i.e, neutral, on the Likert scale); and 10% (one respondent) did not favor this combined assessment protocol (i.e., 1 on the Likert scale). The *Teacher's Guide* recommends the combined assessment protocol.

On question 20, regarding students' use of technology for skill assessment, results were more in favor: 90% mostly agreed or agreed that students should use an assessment tool such as *Kahoot!* (www.kahoot.com) (i.e.,4 or 5 on the Likert scale), whereas only 10% (one respondent) disagreed (i.e, 1 on the Likert scale). The *Teacher's Guide* recommends using Kahoot! or a similar digital assessment tool.

Questions 21, 22 and 23. Three participants responded to Question 21, regarding potential modifications in assessment practices. One of the participants asked: How could students self-assess after each session? Can they read simple syllable combos after session 1?

The answer is yes. After the lesson on the first generative word, *pelota*, students are able to make many words, which was in fact illustrated by the participants who made long lists of words after the lesson demonstration with the word *pelota*. Another participant felt that alternating assessments makes it more interesting for students. This same participant suggested using technology in assessments to motivate students, in answer to question 20, which has been recommended in the *Guide*.

Question 22, asking for further comments, received two responses. One of the participants pointed out that she would like to see the new literacy model implemented with students to better understand how to teach it; *Kahoot!* was not demonstrated in the validation workshop (this will also be discussed under limitations of the study). The second participant stated that it was not clear why Portuguese was used when describing the steps. For example, "*Análise da Palavra."* He felt that although Freire wrote in Portuguese, this guide is tailored for a Hispanic audience and the code switching was distracting. The participant suggested writing "*Análisis de la palabra*," which has been changed in the *Guide*.

Another recommendation from this participant was to attach a 15-minute video, showing the teaching of the model in action. Finally, this participant stated, "This is a brilliant methodology for teaching immigrant SIFE because it addresses the emotional experience of immigration and empowers them to create the new words that are most personally useful and impacting. Immigrants will feel their self-esteem improve and stir in themselves the impulse to self-transform through literacy."

On Question 23, which asked whether workshop participants would like more professional development use of the Freire-UDL Literacy-*Alfabetización* Model, 100% of the nine who responded answered yes. The following are some of the teachers' answers:

- More examples of strategies to use with students
- Implementing lessons
- *Alfabetización*
- Application—more examples, sample of lesson plans/activities
- A 1-2-page document indicating basic steps; possibly a basic lesson plan with activities.

In response to these comments, the researcher plans to return to the same school, give each teacher participant a *Guide*, and get administrative permission to offer SIFE teachers a professional development, using the new Freire-UDL Literacy-*Alfabetización* Model. Although the example of a lesson plan has been included in the Guide, the professional development will help teachers see the implementation of the model.

Summary

The first section of this chapter answered research Question 1 by presenting the key concepts of Freire's pedagogy of *alfabetización and conscientización*, which was a fundamental process in informing the creation of the new literacy/*alfabetización* model and the *Teacher's Guide*. The second section of the chapter answered research Question 2, by presenting the preliminary steps used to integrate the UDL Framework with Freire's method of *Alfabetización* in creating the Freire-UDL Literacy-*Alfabetización* Model. The *Guide* is presented as a separate component in Chapter 6. The third section of the chapter answered research Question 3, which included the explanation of how the Freire-UDL Principles emerged from the integration of the UDL principles with Freire's pedagogical principles, creating the theoretical foundation of the model, which was the blueprint in development of the *Teacher's Guide*. This section of the

chapter also presented the procedural steps followed in the validation study of the model and guide as well as an analysis of the teachers' responses, using simple descriptive statistics.

Chapter 6: The *Freire-UDL Literacy*-Alfabetización *Teacher's Guide*

This chapter presents the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide*, which is based on the Freire-UDL *Literacy*-Alfabetización Model developed through this action research project. The *Freire-UDL Literacy*-Alfabetización *Guide* connects theory with practice to address the need to teach a significant number of nonliterate Spanish SIFE/SLIFE to read effectively through Spanish instruction. Additionally, it meets the need for adequate preparation among middle and high school educators to teach Spanish-speaking nonliterate SIFE/SLIFE how to read through instruction in their native language. The *Freire-UDL Literacy*-Alfabetización *Guide* consists of four sections:

The Why: Theoretical Foundations of the *Freire-UDL Literacy*-Alfabetización *Guide*

The What: Understanding *alfabetización* within *conscientización*

The How: Implementation—*Alfabetización* (multiple ways)

The When: Assessment (multiple ways)

In addition, this *Guide* includes all the necessary materials for teachers to use in the classroom.The text of the *Teacher's Guide* begins on the next page.

THE FREIRE-UDL LITERACY MODEL

A Teacher's Guide

Pilot Study Version

"La educación no cambia el mundo, cambia a las personas que van a cambiar el mundo."

-Paulo Freire

LITERACY IN 40 HOURS •*Alfabetización en 40 Horas*

Maria João Mendes

Lesley University

FOREWORD

Dear Bilingual Teachers:

As a former middle school ELA teacher, I am well aware of the challenges that you face daily in teaching reading and writing to nonliterate students who arrive in the United States with interrupted or limited formal education (SIFE/SLIFE), particularly students who have not yet learned how to read and are placed in middle and high school classrooms.

Spanish-speaking students make up the largest number within this population. In 2014-2015, Spanish was the home language for approximately 3.7 million EL students, making up 77.8% of all EL students (Condition of Education, 2017); and among this large population are SIFE/SLIFE, including students who are nonliterate in Spanish. Notably, Spanish-speaking students continue to show a higher school dropout rate than that of White and Black students in the United States (Condition of Education, 2017), particularly in Massachusetts, where they have accounted for a whopping dropout rate of 42% in 2016-2017 (Massachusetts Department of Elementary and Secondary Education, 2017).

It is imperative that all students, including SIFE, learn how to read and write so they can be successful in school and later have greater job opportunities that maximize their earning power and quality of life (August & Shanahan, 2006). However, SIFE have greater academic needs for intensive and appropriate interventions, including instruction in critical thinking skills, than their non-SIFE EL counterparts. Therefore, there is a huge need to support middle and high

school teachers with adequate resources and professional learning to accelerate the process of *alfabetización* for these students.

To respond to this need, I have focused my research work on creating a literacy model—the Freire-UDL Literacy-*Alfabetización* Model—for nonliterate Spanish-speaking SIFE; This instructional method will prepare middle and high school educators to teach Spanish-speaking SIFE how to read in their native language in just 30 to 40 hours. Rapid achievement of literacy is of paramount importance, and using the phonemic transparency of Spanish as an initial platform enables SIFE/SLIFE to more easily transfer their acquired Spanish literacy skills to English literacy.

Here I would like to show my gratitude to the teachers who participated in the validation of this model, supporting me in making it more comprehensible for implementation. Thank you very much!

Boston MA
Maria João Mendes
Doctoral Candidate
Lesley University

Cover photo credit: http://blog.tiching.com/recetas-para-fomentar-la-lectura-en-adolescentes/

INTRODUCTION

This research-based *Teacher's Guide* is the result of an academic endeavor whose primary purpose is providing nonliterate Spanish-speaking SIFE teachers with an effective new literacy-instruction model. Because reading is language-based, nonliterate students will achieve literacy in English most efficiently by learning to read in their native language, L1, and then transferring that skill to reading in English, L2. (August & Shanahan, 2006). It is well documented that students' literacy skills in the native language are fundamental for their English literacy acquisition and school success (Bigelow & Tarone, 2004; Collier, 1989, 1995; Cummins, 1981, 2000, 2001; Freeman & Freeman, 2000, 2002; Garrison-Fletcher et al., 2008; Goldenberg, 2008; Klein & Martohardjono, 2015; Menken, Kleyn, & Chae, 2012; Short & Fitzsimmons, 2007; Thomas & Collier, 2002).

The Freire-UDL Literacy-*Alfabetización* Model provides an alternative solution to the traditional approach of instruction in how to read that has focused on the relationship between letters and sounds, rhyming words, and word classes, leading to students' decoding skills. In contrast, the Freire-UDL Literacy-*Alfabetización* Model is based on the teaching/learning of phonics and spelling through 17 *generative words* that are emotionally relevant, for they come from students' vocabulary universe. Through a respectful dialogue between teacher and students, teachers lead students through critical inquiry and high-reasoning questions to analyze their social context, reflect on it, and gain agency to change it—a process to which Freire refers as *conscientización*.

The other foundational idea this model addresses is the variability of learners. The model opposes looking at students as if they have to fit a typical learning mold. Traditionally, curriculum has been designed for the "average" student and, if a student's way of learning does

not conform to the "average" norms, he is considered disabled. As a result of new research in neuroscience, we now can say with confidence that it is the curriculum that is disabled, instead of the student (Meyer, Rose, & Gordon, 2014). Everyone's brain is composed of brain networks that operate in learning environments in different ways. Therefore, information must also be presented to students in different ways.

USING THIS TEACHER'S GUIDE

The *Freire-UDL Literacy Teacher's Guide* provides a road map for your practice. It is organized into four major sections that will support you in what and how to *teach* nonliterate Spanish-speaking SIFE to read in your classroom in less than 40 hours:

Section 1. The Why: Theoretical Foundations of the Freire-UDL Literacy Model

Section 2. The What: Understanding *Conscientización* within *Alfabetización*

Section 3. The How: Implementation—*Alfabetización (multiple ways)*

Section 4. The When: Assessment (multiple ways)

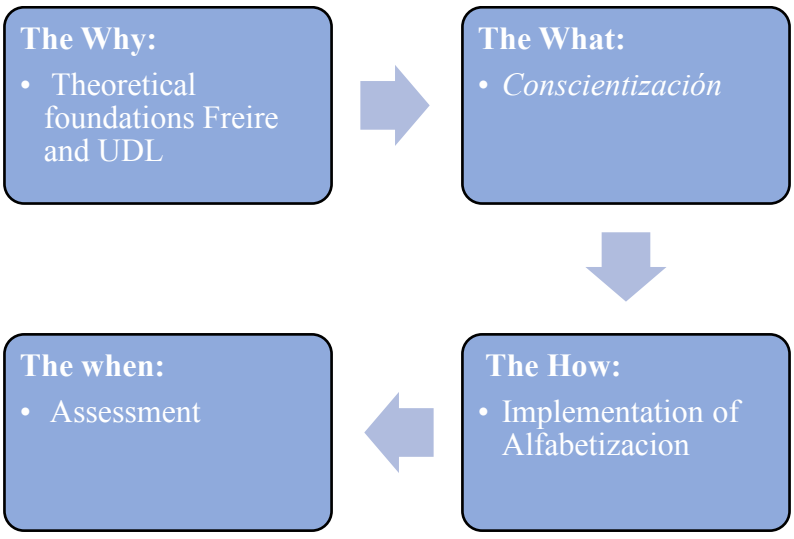


Figure 18. Visual representation of the *Teacher's Guide* Sections

Table 5

Teacher's Guide Definition of Terms

Alfabetización LITERACY 	*Acción y efecto de alfabetizar.* Teaching to read and write so that each student uses the written "word to read the world" to continue to learn and to grow. http://www.wordreference.com/definicion/alfabetización
Banking Concept of Knowledge	"The concept of education in which knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing." http://www.freire.org/paulo-freire/concepts-used-by-paulo-freire/
Conscientización CONSCIENTIZATION "consciousness raising" = CRITICAL THINKING = PROBLEM POSING EDUCATION	"The process of developing a critical awareness of one's social reality through reflection and action. Action is fundamental because it is the process of changing reality. Paulo Freire says that we all acquire social myths which have a dominant tendency, and so learning is a critical process which depends upon uncovering real problems and actual needs." http://www.freire.org/paulo-freire/concepts-used-by-paulo-freire/
Dialogue 	"Dialogue presupposes equality of dignity amongst participants in conversation. Each must trust the others; there must be mutual respect and love (care and commitment). Each one must question what he or she knows and realize that through dialogue existing thoughts will change and new knowledge will be created. " http://www.freire.org/paulo-freire/concepts-used-by-paulo-freire/
Generative Word **pelota**	*Generative Words* are the 12-19 "emotionally charged" words selected according to (1) graphophonic complexity and (2) real value to students' life experience, to teach them to read, *alfabetizar*. These words come from dialogue with students and their experiences—their cultural and linguistic universes. The words are used in dialogue between students and the teacher, as a vehicle for *conscientización* in class, and as a vehicle to teach graphic language."The word is the founder of dialogue, creativity and possibility." (Victoria, 2014) [11]

[11] Vittoria, P. (2014). Dialogue in Critical Pedagogy: Generative Word as Counter-Hegemonic Action. International Journal of Educational Policies, 8(2), pp. 103- 114.

Types of Syllables	English is an opaque morphophonemic language, while Spanish is a transparent language. Syllables in Spanish and Portuguese are intuitive and they are classified as direct, indirect, and mixed:
pe-lo-ta	Direct syllables—CV-CV-CV (pe-lo-ta) Indirect Syllables: VC (**ár**bol) Complex Syllables: Combination of direct and indirect syllables

SECTION 1

PHASE ONE: THEORETICAL FOUNDATIONS OF FREIRE-UDL LITERACY-*ALFABETIZACIÓN* MODEL

Guiding Questions for Section 1

1. **What is the theoretical foundation of the Freire-UDL Model?**
2. **Why combine the UDL Framework with Freire's *Alfabetización* and *Conscientización*?**
3. **Why is *Conscientización* included in this model?**

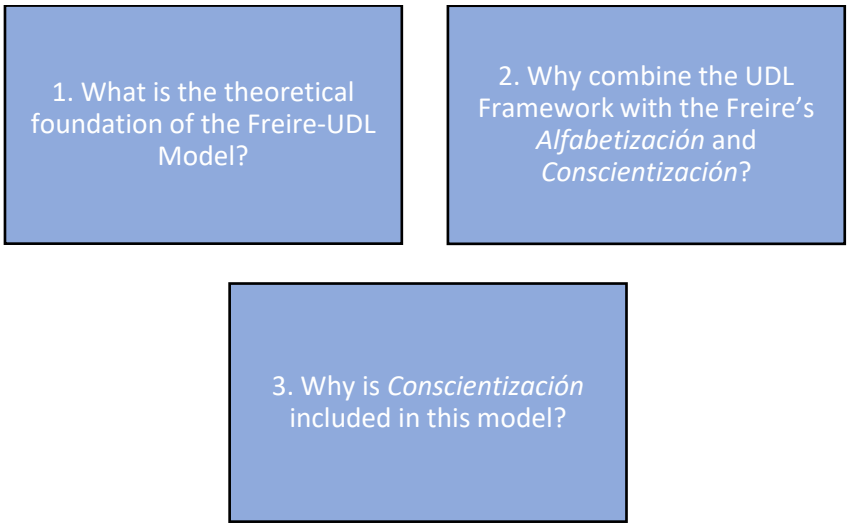


Figure 19. Visual representation of guiding questions for Section 1

After Reading Section 1, You Will:

- **Have a clear understanding of why this approach can be a solution to the challenges Spanish SIFE are facing in schools.**

- **Become familiar with the urgency that led to creation of the Freire-UDL Literacy Model that enables nonliterate SIFE to learn how to read through their home language.**
- **Become familiar with the theoretical underpinnings of the Freire-UDL Literacy Model: The Paulo Freire Pedagogy and the UDL framework.**

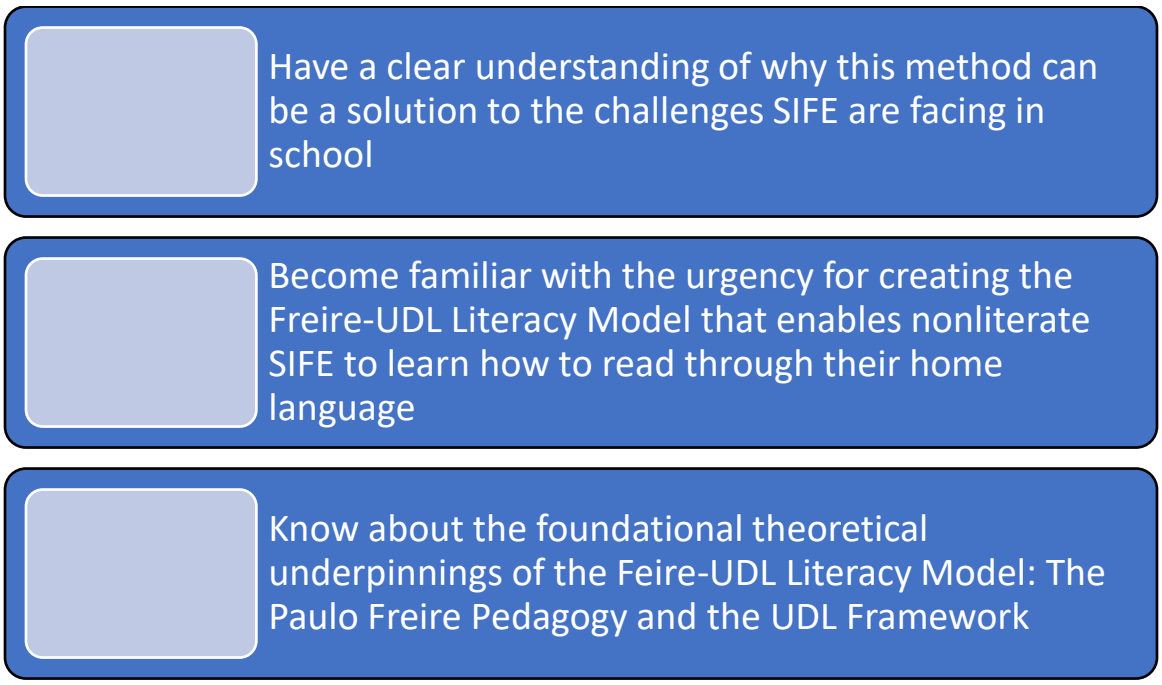


Figure 20. Visual representation of takeaways from Section 1

Section 1 addresses the theoretical underpinnings of the Freire[12]-UDL Literacy Model by uncovering how the integration of Freire's pedagogy of *conscientización* and *alfabetización* with the UDL framework created a new and efficient literacy model for nonliterate Spanish-speaking

[12] Paulo Freire is a world-renowned educator from Brazil whose method of *alfabetización* has become acclaimed worldwide (Elias, 1974).

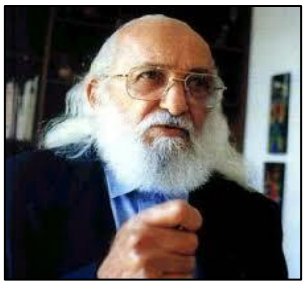
SIFE teachers to teach reading through Spanish instruction. It introduces the Freire-UDL principles as the blueprint for implementation of this model through the guide.

The idea of combining these two pedagogical frameworks (Freire with UDL) in creating the new literacy model was born from the urgency to address SIFE's illiteracy, the success of Freire's method of *alfabetización* in teaching people how to read in 30 to 40 hours, and the accessibility that the UDL framework provides, with many options for all kinds of students to be able to become "expert learners."

Alfabetización is a meaningful word-concept, especially to those students who do not yet know how to read written text. It goes beyond the skills of reading and writing (literacy) to also impart the concept of learning to think about and analyze one's social cultural reality, thus becoming aware of all life's possibilities. *Alfabetización* is much easier to learn in Spanish, which is a transparent language with a writing system that has consistent grapheme-to-phoneme correspondences, than *Alfabetización* in English as second language (See National Literacy Panel). On the other hand, English is an opaque morphophonemic language (www.ldldproject.net) with 44 sounds and around 200 spellings to represent them. Individual letters may represent more than one phoneme, and more than one letter may represent one phoneme (Ijalba & Obler, 2015). Evidence from all over the world shows that *alfabetização/alfabetización* in Portuguese or Spanish can be learned in 3 months or less (Brown, 1978), while it may take 3 years to learn to read in English for native English speakers.

The following is an introduction to Freirian pedagogy and its influence in the world context of education.

About Freire's Literacy Pedagogy

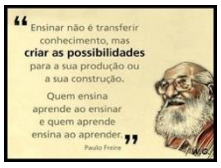


Freire's pedagogy of *alfabetización* and *conscientización* has been exceptionally successful and worldwide acclaimed (Elias, 1974). In Brazil, in 1963, Freire was able to teach 300 people to read in 45 days (Rocha & Bulhões, 2012). His theory and methodology have influenced educational systems and programs of *alfabetización* throughout Latin-America, Africa, and the United States (Oliveira & Santos, 2017).

Freire's method of *alfabetización* with *conscientización*, aligned to the syllabic nature of Spanish and Portuguese, is a well-documented literacy learning approach. It implements teaching-learning strategies that are highly engaging and honoring of learners' experiences. Theoretically, this is both a top-down and bottom-up reading approach (See models of reading at https://study.com/academy/lesson/what-is-a-reading-model-definition-overview.html).

Freire's theoretical foundation is anchored in three principles with subsequent "guidelines," or *saberes* (See Table 1) that allow for the creation of educational spaces in which students and their cultures are valued. Through critical inquiry, students gain *conscientización* (awareness) of their lives and future possibilities. In the Freirean pedagogy, literacy education prepares students to "read the world" through *conscientización* before they learn to "read the word" through *alfabetización.* It is based on teaching and learning through a respectful dialogue between teacher and student, mediated by the world (Freire & Macedo, 1987). See definitions of each principle in Figure 21.

Principle 1
Não há docência sem discência
Teaching demands ongoing learning.
Freire explains that teaching and learning are intertwined. It was only by learning that people discovered ways and methods of teaching. In other words, learning precedes teaching. Teaching that does not result in learning that the learner can recreate, or remake, is not valid (Freire, 1999).



Principle 2
Ensinar não é só transferir conhecimento
Teaching is much more than transferring knowledge.
More than transferring knowledge, teaching is the process of creating opportunities for constructing knowledge through inquiry with dialogic action.

Principle 3
Ensinar é uma especifidade humana
Teaching/Education is a human act.
This means that teaching requires an ongoing learning not only about content but also pedagogy, which will entrust the teacher with the self-confidence and professional confidence required for an open respectful dialogue between teacher and student.

Figure 21. Freire's three Principles: The foundation of the Freirean Pedagogy.
Source: Freire (1999) *Pedagogia da Autonomia: Saberes Necessários à Prática Educativa* http://forumeja.org.br/files/Autonomia.pdf

Next, Table 6 presents Freire's principles and teaching practices in education which are the foundation of the Freirian pedagogy.

Table 6

Freire's Principles and Teaching Practices-Saberes in Education

1. Teaching Demands Ongoing Learning

1.1	Teaching demands methodological rigor
1.2	Teaching demands research
1.3	Teaching demands respect for the students' knowledge
1.4	Teaching demands critical thinking
1.5	Teaching demands ethics and aesthetic
1.6	Teaching demands doing what one says
1.7	Teaching demands taking risks, accepting the new while rejecting any form of discrimination
1.8	Teaching demands critical reflection about the practice
1.9	Teaching demands recognizing cultural identity

2. Teaching Is Much More Than Transferring Knowledge

2.1	Teaching demands the awareness that learning never ends
2.2	Teaching demands awareness of one's conditioning
2.3	Teaching demands respect for the autonomy of the student
2.4	Teaching demands the use of common sense
2.5	Teaching demands having humility, tolerance, and advocating for the educators' rights
2.6	Teaching demands being in touch with reality
2.7	Teaching demands having joy and hope
2.8	Teaching demands the conviction that change is possible
2.9	Teaching demands curiosity

3. Teaching Is a Human Act

3.1	Teaching demands self-confidence, professional competence, and generosity
3.2	Teaching demands commitment
3.3	Teaching demands the understanding that education is a form of intervention in the world
3.4	Teaching demands freedom and authority
3.5	Teaching demands decision making that is aware and conscious
3.6	Teaching demands knowing how to listen
3.7	Teaching demands the recognition that education is ideological
3.8	Teaching demands openness for dialogue
3.9	Teaching demands caring for the students

Note. Adapted from Freire, (1999) *Pedagogia da Autonomia: Saberes Necessários à Prática Educativa* by Maria João Mendes (2018)http://forumeja.org.br/files/Autonomia.pdf

Figure 22 shows a visual representation of how Freire's three principles and inherent teaching practices are interconnected to provide the adequate educational context for students' *conscientización*. (See Figure 22 and prior description.) Freire's three principles and related teaching practices represent the foundation for his influential pedagogy of *conscientización* and *alfabetización*. To use this pedagogy, teachers must embrace and implement these educational practices to create a mutually respectful classroom environment—one that promotes dialogue and advancement of problem-posing and problem-solving education. It is through the teaching of high-reasoning questions, which promote critical thinking, that students gain *conscientización* about their hopes, dreams and possibilities in life. Teachers must use culturally relevant pictures, videos, paintings and other *realia* that will provide students with opportunities for meaningful discussions, ensuring eagerness for learning how to read.

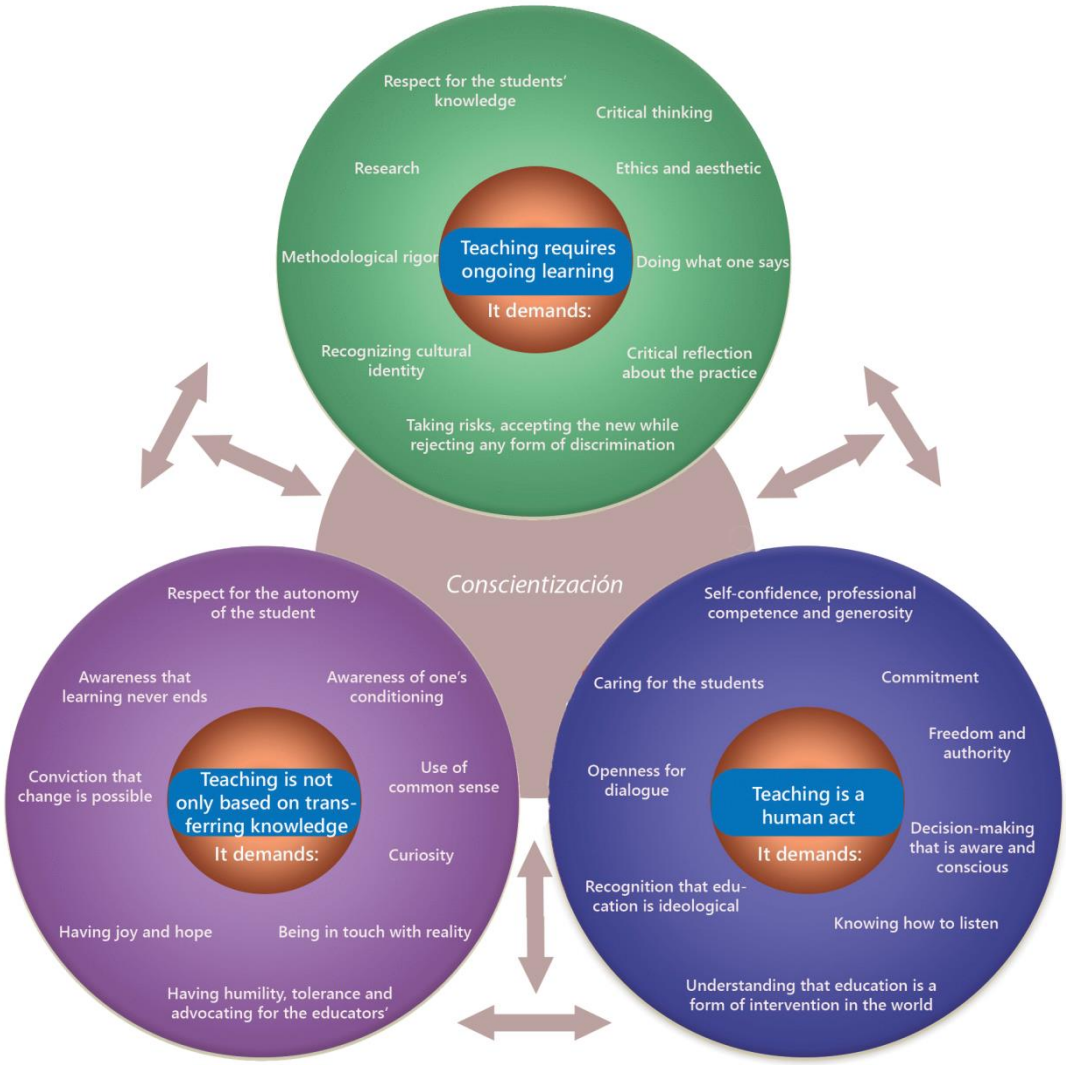


Figure 22. Visual of Freire's Three Principles and Essential Teaching Practices (1999)
© Maria João Mendes (2018)

It is fundamental that teachers lead students to the following discoveries:

- They can all still learn to read
- The process of learning to read in Spanish, their native language, is easier and quicker than learning to read in English

- When students learn to read in Spanish, they are able to transfer their literacy skills from Spanish to English.

In Freire's pedagogy, teachers guide and coach students in taking ownership of their own *alfabetización.* This process begins from the students' "reading of the world" through *conscientización,* so they can then "read the word."

Words do not exist independently from the situations or experiences that they represent (Freire, 1967), therefore students must learn through words that come from their cultural context/experience, and therefore are charged emotionally. In the Freirean approach of *alfabetización*, teachers only need 17-20 ***generative words*** to teach students how to read. These words are the heart and soul of this method and serve two purposes: to generate engaging themes for class discussions and critical thinking that bring about students' awareness of their problem-solving capabilities, hopes, and life possibilities; and to teach students how to read.

Generative words in *Alfabetización*

The 17 ***generative words*** shown in the Freire-UDL Literacy-*Alfabetización* Model and *Teachers Guide* were selected based on two criteria:

1. Common noun words of high value, interest, and meaning to the diverse Spanish students' life experiences that are, therefore, emotionally charged.
    - Initially selected based on my experience as a middle school teacher of Spanish-speaking students.
2. Validated by other Spanish-speaking teachers.
    - Words cover all phonics skills in Spanish, from direct syllables to complex syllables

Freire stresses throughout his works that in the process of *alfabetización*, words cannot come from outside students' reality, as is traditionally done. These ***generative words*** are emotionally charged words that encompass what students care about, and that at the same time represent all Spanish-syllable letter sounds. Accordingly, words must come from students' vocabulary universe. More than familiar words, they must be engaging words.

In other words, *Generative Words* are key in this approach to facilitating students' learning how to read, and are chosen according to the three basic principles of UDL:

1. *Engagement.* Words must be emotionally charged. They must reflect, respect, and value students' experiences, language, and cultures. The words are foundational in promoting students' engagement with learning to read (through Spanish instruction).
2. *Representation.* Words must have graphophonic value, from a simple three-syllable word with direct syllables (i.e., banana), to complex-syllable words (e.g., inmigrante). This takes into account Spanish language structure which is transparent (regular sound to letter relationships), syllabic language.
3. *Expression.* Pictures illustrating *generative words* must represent the words which are used for both the processes of *conscientización* (first) and *alfabetización* (second).

The preparation of materials for teaching *alfabetización* in the Freirean pedagogy traditionally has required that teachers investigate the students' vocabulary universe and experiences through dialogue, discussions, and conversations. Teachers must become familiar with students' lives and their cultural realities in order to identify ***generative words*** that are very relevant to their lives outside school and, therefore, emotionally charged. In the interest of teachers' time, the step of collecting ***generative words*** in the process of *alfabetización* for this guide was performed by the

researcher, using her experience as a middle school teacher of Spanish-speaking students; selected words were validated by other teachers.

About Universal Design for Learning (UDL)

Following is a brief overview of the Universal Design for Learning Framework (UDL), including the three principles of the UDL Framework and how these transform instruction and accessibility for all kinds of learners.

UDL is an educational framework that eliminates barriers, providing an opportunity to learn for all kinds of learners. UDL is based on neuroscience research—knowledge of how the brain learns—and it has revolutionized education. Its essence is to anticipate and remove barriers to learning, with the aim of reaching all students regardless of background, disability, or experience. Instead of "fixing" students by forcing them into a standard curricular mold, educators fix the curriculum (see http://www.cast.org/our-work/publications/2014/universal-design-learning-theory-practice-udl-meyer.html#.W1TZgtJKjIU). Dr. David Rose, a neuropsychologist and educator, and Anne Meyer, a psychologist at the Center for Applied Special Technology (CAST), coined the term Universal Design for Learning (Edyburn, 2006). They took the Universal Design (UD) concept, developed in architecture, and applied it to education. In this context, Rose, Meyer, and their colleagues researched and created the UDL Framework in the early 1990s (Meyer, Rose, & Gordon, 2014). Like *alfabetización* and the concept of generative words, UDL is based on three principles and corresponding ***sabers*** or **guidelines** (see http://www.cast.org/our-work/about-udl.html#.W1y3ktJKjIU): Multiple ways of Engagement, Multiple ways of Representation, and Multiple ways of Action and Expression (see Figures 23 and 24)

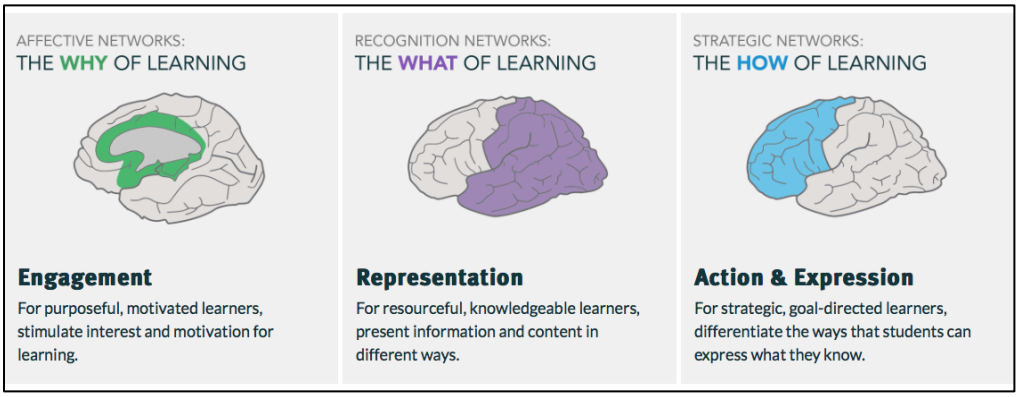


*Figure 23.*The Three UDL Principles Based on the Three Brain Netw. orks
Note. From http://www.cast.org/our-work/about-udl.html#.W1y3ktJKjIU

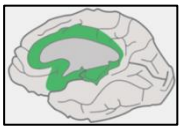
	**Principle 1** *Multiple Means of Engagement* Addresses the affective brain network, the *why* of learning. Its ethos is stimulating students' interests and motivation for learning in a variety of ways. A way to develop students' relevant emotional connections with the academic content, particularly for SIFE, is to recognize the diverse cultural backgrounds that these learners bring into the classroom, impacting their access to and engagement with the curricula.
	**Principle 2** *Multiple Means of Representation* Addresses the recognition brain network, the *what* of learning. A way to meet students' variability in constructing knowledge as they perceive and interpret information is to present it in different ways. In the case of SIFE, an example is presenting information in students' first language.
	**Principle 3** *Multiple Means of Action and Expression* Addresses the strategic brain network, the *how* of learning. A way to meet students' variability in executive functions is to provide students with options for goal setting, organization, and planning, as well as options for expressing what they learned. In the case of SIFE, this provides different opportunities for students to express their knowledge in their first language.

Figure 24. UDL Principles and Their Goals
These goals inform instructional practice, providing accessibility to all kinds of learners.
Note. Adapted from http://www.cast.org/udl/

Traditionally, curriculum has been designed for the "average" student in the same way that architecture was designed for the "typical" user. When learners did not fit into this typical mold, it was necessary to go back and "remediate," just as architects have to retrofit their original works to provide accessibility for users of wheelchairs or walkers, or programmers provide closed captions on television. By definition, the notion of remediation is based on a deficit model, with all the attached negativity implied in phrases such as: "these learners are less than;" "they are to be pitied and need to be fixed." In contrast, both UD in architecture and UDL in education are based on the principle that environments can be created in ways that make them accessible to users/learners with the broadest range of needs or abilities.

Under each UDL principle, there are corresponding guidelines that inform instruction by transforming the curriculum.[13] Each guideline explicitly provides checkpoints which offer specific suggestions and options for instruction (see Figure 25; see also http://udlguidelines.cast.org). Figure 25. UDL Guidelines Graphic Organizer with checkpoints that offer specific suggestions and options for instruction

Next, the researcher will discuss the Freire-UDL model of *alfabetización*, which is grounded on the integration of Freirean pedagogy and the UDL framework.

[13] Curriculum in UDL includes four components: goals, methods, materials, and assessment. http://www.cast.org/our-work/publications/2014/universal-design-learning-theory-practice-udl-meyer.html#.W1TZgtJKjIU

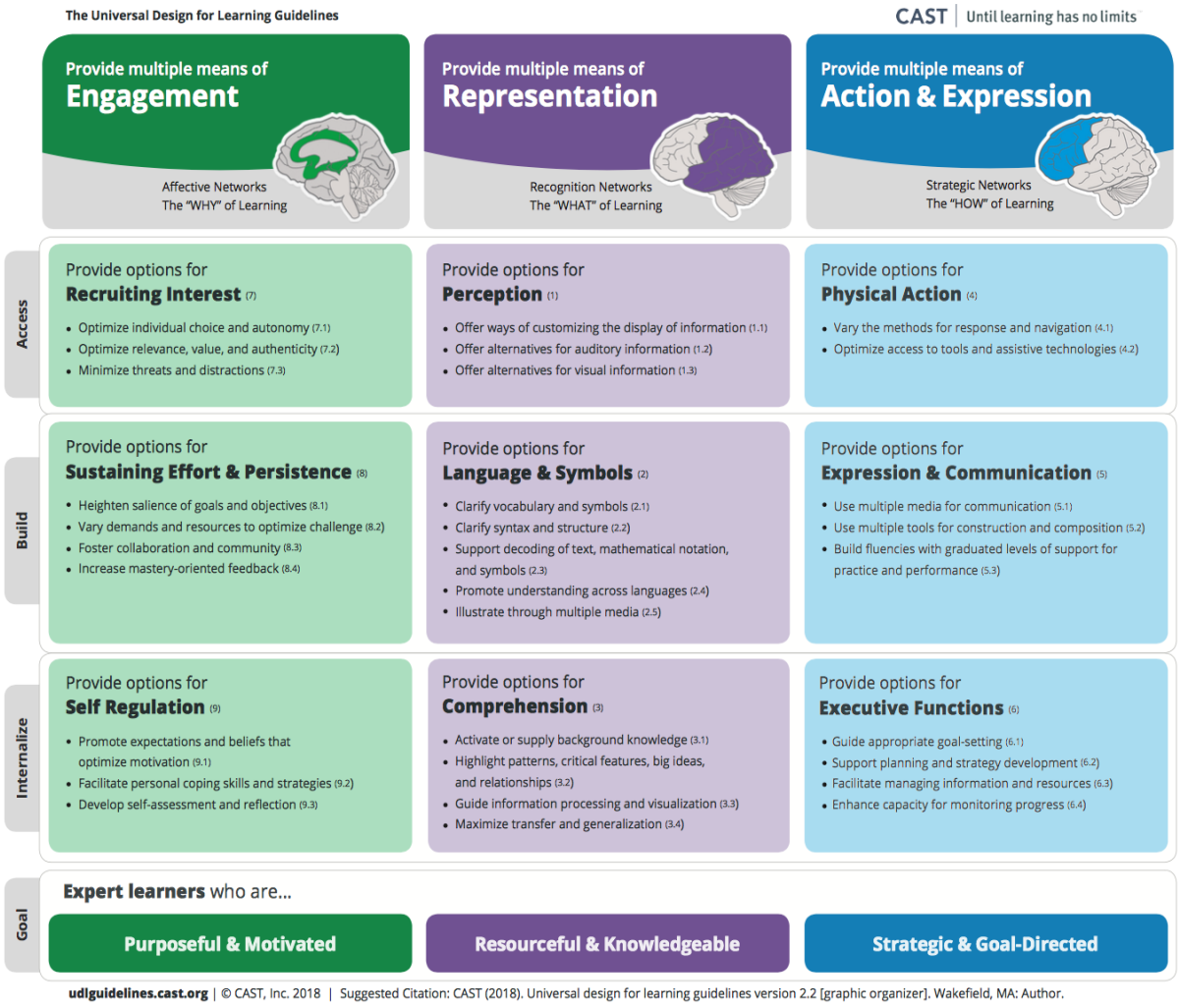


Figure 25. UDL Guidelines Graphic Organizer with checkpoints
This chart provides specific suggestions and options for instruction.
Note. From http://www.cast.org/udl/ (Permission to use has been requested.)
These guidelines have also been translated into Spanish and Portuguese:
http://www.udlcenter.org/sites/udlcenter.org/files/Guidelines_JAN2011_3_spanish_0.pdf
http://www.udlcenter.org/sites/udlcenter.org/files/Guidelines_2.0_Portuguese.pdf.

The Freire-UDL Literacy-*Alfabetización* Model™

The Freire-UDL Literacy-*Alfabetización* Model creates an approach to *alfabetización* that marries Paulo Freire's method (teaching to read and write with *conscientización*) with the Universal Design for Learning (UDL) framework described previously. It removes learning

barriers and promotes accessibility to learning for all students, regardless of their variability. What is universal about UDL is its foundation on neuroscientific brain structures, which are present in all learners. However, these brain networks operate in learning environments in a multiplicity of ways. It is imperative, therefore, to incorporate *Multiple Means of Engagement*, *Multiple Means of Representation*, and *Multiple Means of Action and Expression* in the instruction of each ***generative word*** to meet students' variability in learning. What makes the Freire model such a good fit with UDL is that the Freirean approach is entirely learner-centered. Hence, variability is, as we now say, "baked-in."

Incorporating Freire's method of *alfabetización* with the UDL framework creates a powerful model for teaching nonliterate Spanish-speaking SIFE from diverse backgrounds and abilities to read and write in a short amount of time. Such a process is critical to ensuring that students with interrupted formal education (SIFE) are given the opportunity to learn how to read and write. Figure 26 provides a visual representation of the Freire-UDL Literacy Model grounded on the intersection between the Freirean and UDL principles.

In the Freire-UDL Literacy Model, Freire's three principles, interwoven with the three UDL principles, gave birth to the following three Freire-UDL Principles:

1. ***Freire-UDL Principle 1***—*Multiple Means of Engagement in Conscientización and Generative Picture Word Use*
2. ***Freire-UDL Principle 2***—*Multiple Means of Representation of Generative Words*
3. ***Freire-UDL Principle 3***—*Multiple Means of Expression of Encoding Based on the Generative Words*.

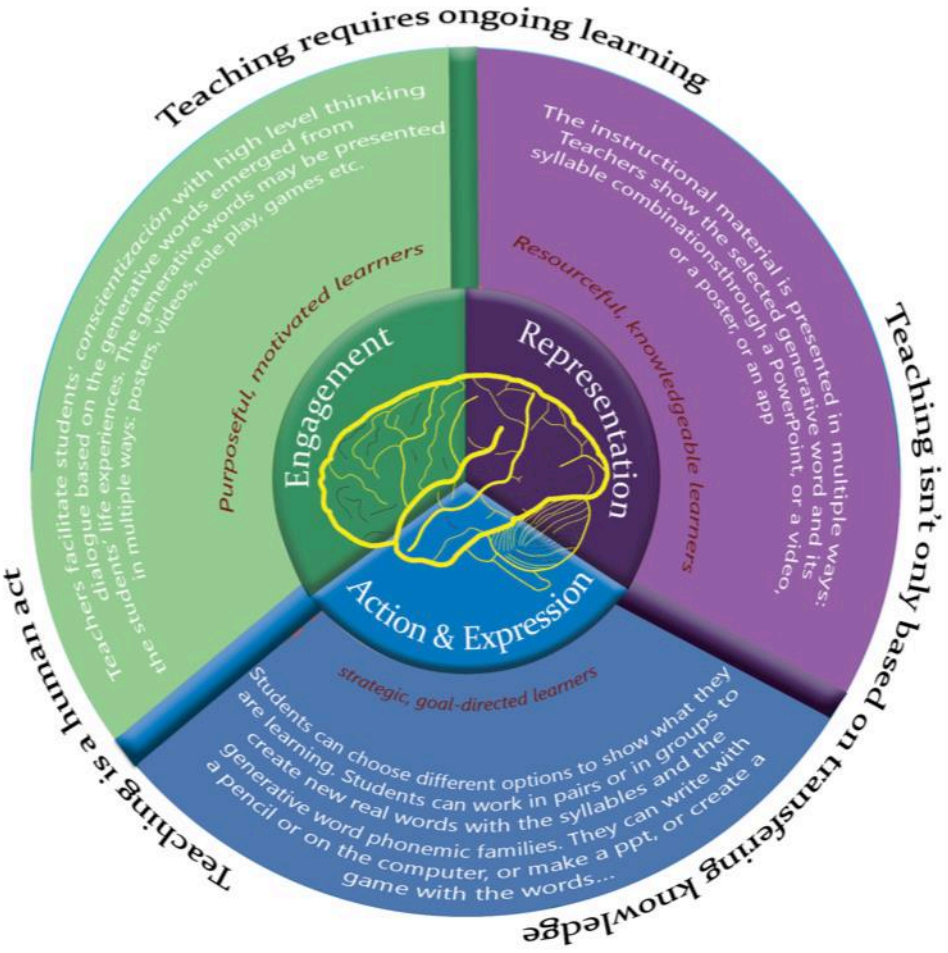


Figure 26. Visual representation of the Freire-UDL Literacy *Alfabetización* Model
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Freire-UDL Principle 1
Multiple Means of Engagement in Conscientización and Generative Picture Word Use

The first Freire-UDL principle, *Multiple Means of Engagement in Conscientización and Generative Picture Word Use,* is grounded on the UDL Principle 1—*Multiple Means of Engagement*, which focuses on engaging students in learning to read through dialogue about generative pictures and alphabetization with ***generative words.*** These selected pictures and

words reflect the students' real-life experiences in addition to connecting with the phonetic (letter sound) structure of the Spanish orthographic system, going from easy words and direct syllables to complex ones.

Unequivocally, culture and language factors are fundamental in the implementation of the UDL Engagement Principle with ELs as compared with EPs (Serpa, 2012). Students must be provided with curriculum in the *alfabetización* process that is accessible in terms of ensuring their engagement (goals, materials, methods, and assessments). A way to develop students' relevant emotional connections is having in mind what is important to them in their lives when selecting materials, in this case the ***generative words***. For example, ***generative words*** should reflect and value the diverse cultural backgrounds that these learners bring into the classroom. Students' meaningful verbal language must be captured through ***generative words*** that are highly connected with their life experiences and, therefore, emotionally charged. Culture affects learning and engagement; therefore, it is a source of learner variability (Chita-Tegmark, Gravel, Serpa, Domings, and Rose, 2012). This is important to consider in anticipating and, consequently, removing cultural and linguistic barriers.

Freire-UDL Principle 1—*Multiple Means of Engagemen*t through *Conscientización* addresses students' engagement on a more meaningful level, for it leads them to develop agency to change their lives for the better. In the process of *conscientización*, teachers facilitate students' self-reflection, higher-level thinking, and problem-solving mindset within their own current cultural context. Students become aware of their importance as human beings who are capable of changing the world. This principle warrants that literacy teachers use multiple ways to promote and facilitate students' engagement through the process of *conscientización*. For example,

questions to facilitate *conscientización* should be based on high-level thinking skills (see Table 7. and Figure 24.).

Freire-UDL Principle 2
Multiple Means of Representation of Generative Words

The second Freire-UDL principle, *Multiple Means of Representation of Generative Words,* is grounded in the UDL Principle 2—*Multiple Means of Representation*, which focuses on providing students with multiple ways of being introduced to each of the ***generative words*** in *alfabetización.* Students learn the connection between oral Spanish and its representation in words, syllables and letter-sound relationships, going from the word to the syllable, to the letter, and back to the word. It is essential to recognize that while all students can learn, they all learn in different ways. Clearly, Spanish-speaking nonliterate SIFE who arrive in the United States without speaking English do not learn how to read through print in a language that they cannot yet speak or understand (see Figure 25 for the UDL Guideline—*Provide Options for Language, Mathematical Expressions, symbols*). Teachers can present ***generative words*** in multiple ways. For example, teachers can introduce the generative picture, generative picture with the written word, and the discovery card in

- a PowerPoint
- a video
- a poster
- a computer application (app)

Freire-UDL Principle 3
Multiple Means of Expression of Encoding
Based on the Generative Words

The third Freire-UDL Principle, *Multiple Means of Expression of Encoding Based on the Generative Words,* is grounded in the UDL Principle 3—*Multiple Means of Action and Expression*, which focuses on providing students with opportunities to express what they know or have learned in different ways. Students are encouraged to create and spell new real words, not *palavras mortas* (not dead words),[14] by using the syllables and letters they have learned through each of the ***generative words,*** starting with ***generative word 1***, ***pelota*.** Students in pairs or in small groups spell words and present these words in multiple ways:

- Handwrite each one on a single 3x5 index card **OR**
- Type the list of words on a computer and print out the list **OR**
- Create a PowerPoint with one word on each slide.

In a PowerPoint presentation, students can incorporate animation, pictures, and sound. (See Figure 25 for the Guideline—*Provide Options for Expression and Communication*). See alsos http://www.cast.org/udl/. This principle provides students with opportunities to express in multiple ways what they have learned about letter-sounds from each generative word, and to make new words and spell them, from day one.

The Freire-UDL Literacy Model creates learning opportunities that address students' variability, making *alfabetización* through Spanish easily accessible to all students. In the next

[14] *Palavras mortas* (dead words) or nonsense words (Freire, 1967).

sections, you will learn how to implement the Freire-UDL Literacy Model through a detailed instructional guide.

Check your Understanding:
Use this section to write your notes or questions.

SECTION 2

PHASE TWO: THE FREIRE-UDL LITERACY MODEL'S IMPLEMENTATION OF CONSCIENTIZACIÓN

Guiding Questions for Section 2

1. **What does *conscientización* mean in the Freirean pedagogy and how can SIFE teachers facilitate their students' *conscientización*?**
2. **Why are *palavras generativas* (generative words) important in the Freirean literacy pedagogy?**
3. **What criteria are used in the process of selecting *generative words* that are appropriate?**
4. **What is the difference between the concepts of Banking Education and Education as Problem Posing?**

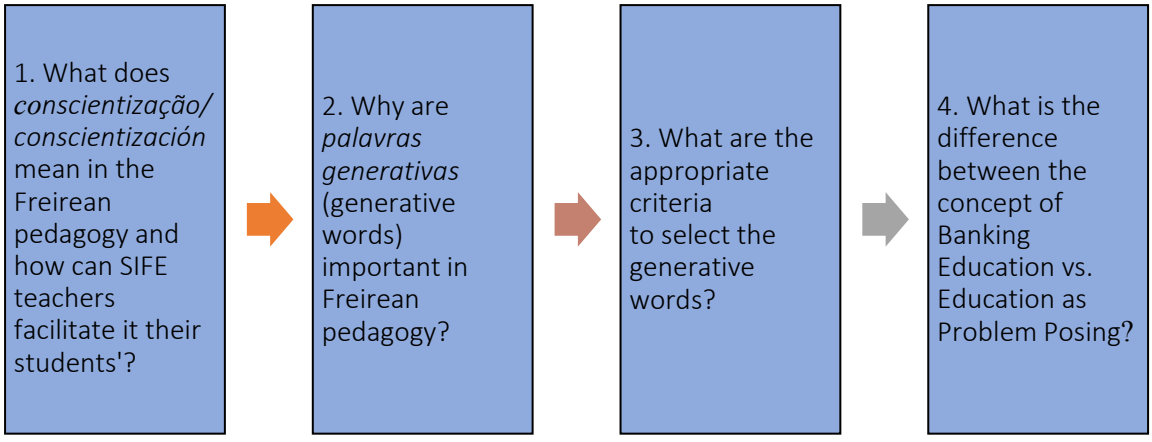


Figure 27. Visual representation of Guiding Questions for Section 2 of the *Teacher's Guide*

After Reading Section 2 You Will Have Developed:

- **An understanding of the importance and process of *conscientización* in giving students agency to change their lives through learning and experiencing high-level thinking skills.**
- **A practical roadmap to creating students' *concientización* within the *alfabetización* process.**

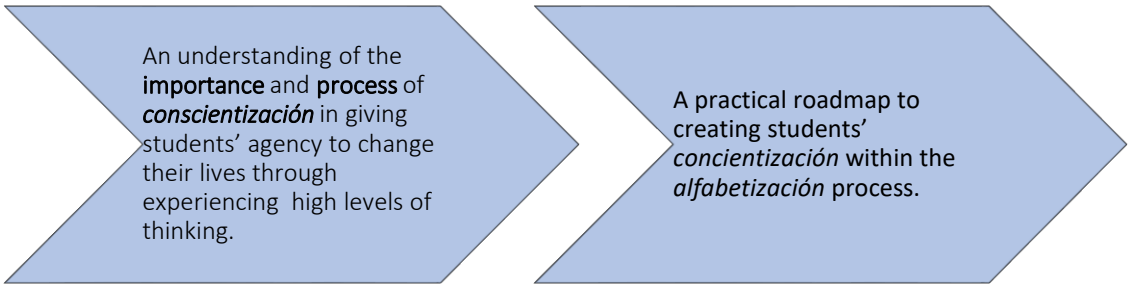


Figure 28. Visual representation of takeaways from Section 2 of the *Teacer's Guide*

This section of the guide introduces teachers to the concept of *conscientización* based on Freirean pedagogy. It describes how to facilitate/teach *conscientización*, its importance in developing students' agency through high-level thinking, and the steps in developing *alfabetización*. It also includes the criteria used in collecting and identifying 12 to17 ***generative words***.

What is Conscientización?

Conscientización is a culturally and linguistically transformative process of students' consciousness-raising which happens through problem-posing education, facilitated by teachers' use of higher-level reasoning, critical thinking, and hope. Through this process, teachers lead

students to go beyond acknowledging their circumstances, thereby directly promoting a gain of agency.

According to Rahnema, Paulo Freire asserts that true education cannot happen without *conscientização*. This Portuguese word, translated to Spanish as *conscientización* and to English as conscientization (often referred to as consciousness-raising), has become internationally known among educational theorists (Ryan, 1974). When applied to adults, it is the process of being able to distance oneself from the world to unveil reality, reflect on it, and transform it. Although the unveiling of reality is tantamount, *conscientização*/*conscientización* is not authentic unless it includes the practice of transforming that reality (Freire & Freire, 2016). Only as one gains critical consciousness of the world can one act on it to transform it, humanizing it. Conversely, when people are not able to change their reality, adapting to it instead, their behavior reflects their dehumanization (Freire, 1974). According to Weffort, for Freire, education is an affirmation of freedom (Freire, 1967), insofar as it develops students' *conscientização/conscientización*.

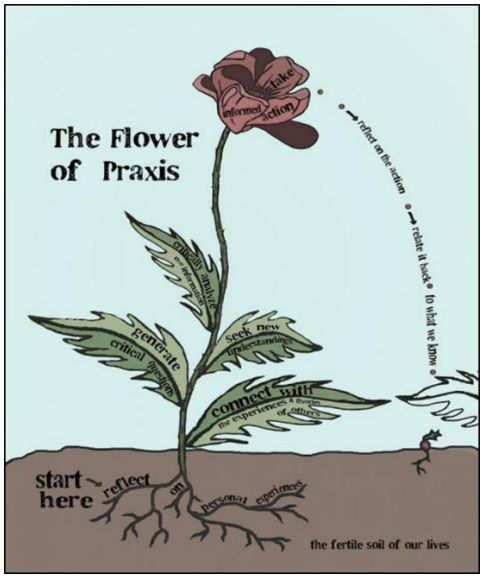


Figure 29. Illustration of the process of *Conscientização/Conscientización*.
Note. From http://rwilliams748.blogspot.com/2014/01/literacy-reading-word-and-world-by.html

Freire understands *conscientization* as the process through which human beings—not as recipients, but as knowing individuals—reach a deepening awareness of both the social-cultural reality that shapes their lives and their capacity to transform that reality (Lloyd, 1972). The final aim of this process, in Freirean terms, is social change (Goulet, 1973). Both teachers and students learn and teach at the same time (Freire, 1999, 2009). In this guide for teaching middle and high school students, the c*onscientización* process has been strategically operationalized to develop high-level thinking skills and habits of mind.

Illustration retrieved from https://jarbas.wordpress.com/048-codificacaodecodificacao-em-paulo-freire/

Conscientização-Conscientización: Problem-Posing Education vs. Banking Education

Conscientización cannot be bestowed upon learners; rather, it is achieved through problem-posing education[15] defined by inquiry and reflection that lead to the unveiling of reality and, consequently, its transformation. (See Figure 30 for the visual concept of problem-posing education known as *Conscientización.*) To be able to implement an educational process that is liberating to the student, teachers must know the difference between the *banking concept* and the *liberating concept* of education.

[15] Problem posing is associated with critical pedagogy as well as critical thinking-high level thinking.

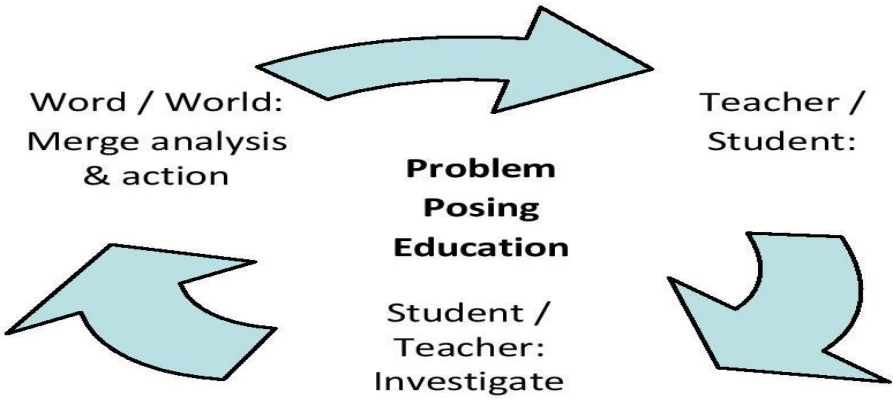


Figure 30. Visual representation of Problem-Posing Education
Note. From http://www.rjcomeau.com/know_thyself-decolonization.htm

The banking concept of education is characterized by the teacher—the person who possessing, all the knowledge, must depositing it into the students, the objects, who become like containers to be filled by the teacher's knowledge. Freire (2009) refers to this model as "banking" education, in which knowledge is deposited into a vacuum as if students had no knowledge at all. (See Figure 31 for the visual concept of banking education.) Opposing this educational concept, Freire's teaching Principle 2 states that learning is not just the transfer of knowledge: rather, it is the process through which teachers provide students with opportunities to create and recreate knowledge. In today's world, it becomes essential that the process of learning to read for SLIFE engages them in the process of their own *alfabetización*.

The banking method stifles students' critical consciousness, preventing them from unveiling the oppressiveness of many realities in school and in society, from reading the world and, therefore, from gaining *conscientização/conscientización*. Figure 31 represents the visual concept of the banking concept of education, which consists of rote learning, a traditional method of learning through repetition and memorization, without understanding meaning.

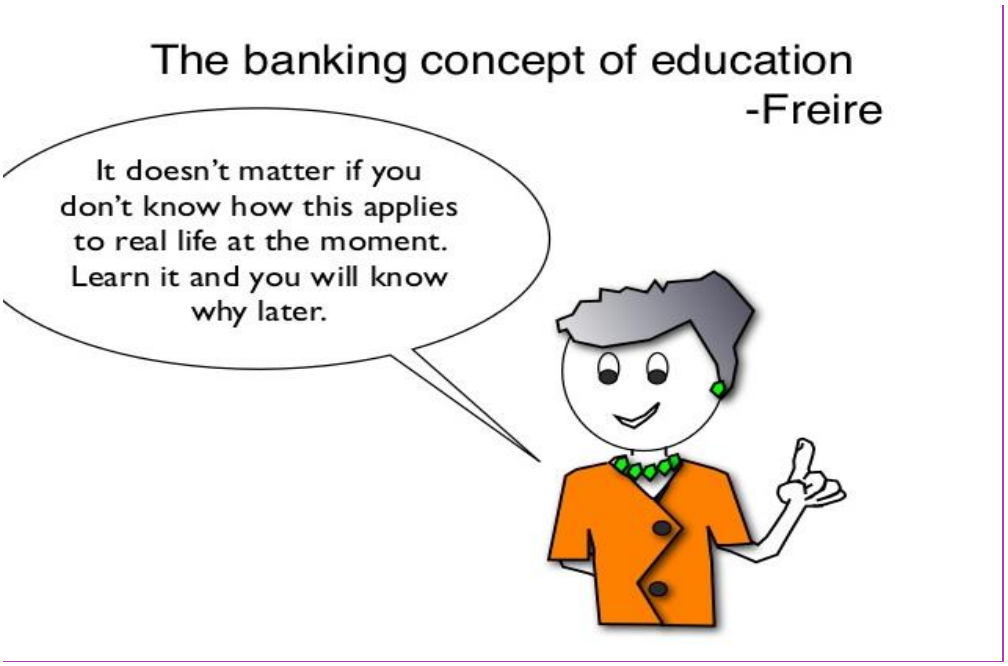


Figure 31. Visual representation of the Banking Concept of Education
Note. From https://www.slideshare.net/annlouisedavidson/csse-capabilities-cera (slide 7)

In contrast with the banking concept of learning is ***problem-posing education***, known also as constructivism or schema theory, leading individuals to become subjects[16] of their learning rather than the objects inherent to the "banking" type of education. (See Figure 32 for the visual concept of banking education versus problem-posing education).

Both teachers and students participate in problem-posing education through dialogue, endeavoring to unveil different realities. Students are empowered to value themselves and their significant contributions to the communities in which they live. It is the emergence of consciousness, *conscientización,* in the process of promoting everyone's dignity and hope for

[16] "The term Subjects refers to those who know and act, in contrast to objects, which are known and acted upon" (Freire, 2009, p. 36).

changing their lives, that is at the center of Freire's pedagogical theory. According to Berthoff, Freire's theory "is not inculcated but is developed and formulated as an essential activity of all learning" (Freire & Macedo, 1987, p. xv). Problem-posing education is one dimension of *concientización*, as it connects literacy learning with the awareness of one's social circumstances through dialogue guided by the teacher. In other words, students learn to "read the world" before they learn to "read the word" (Freire & Macedo, 1987).

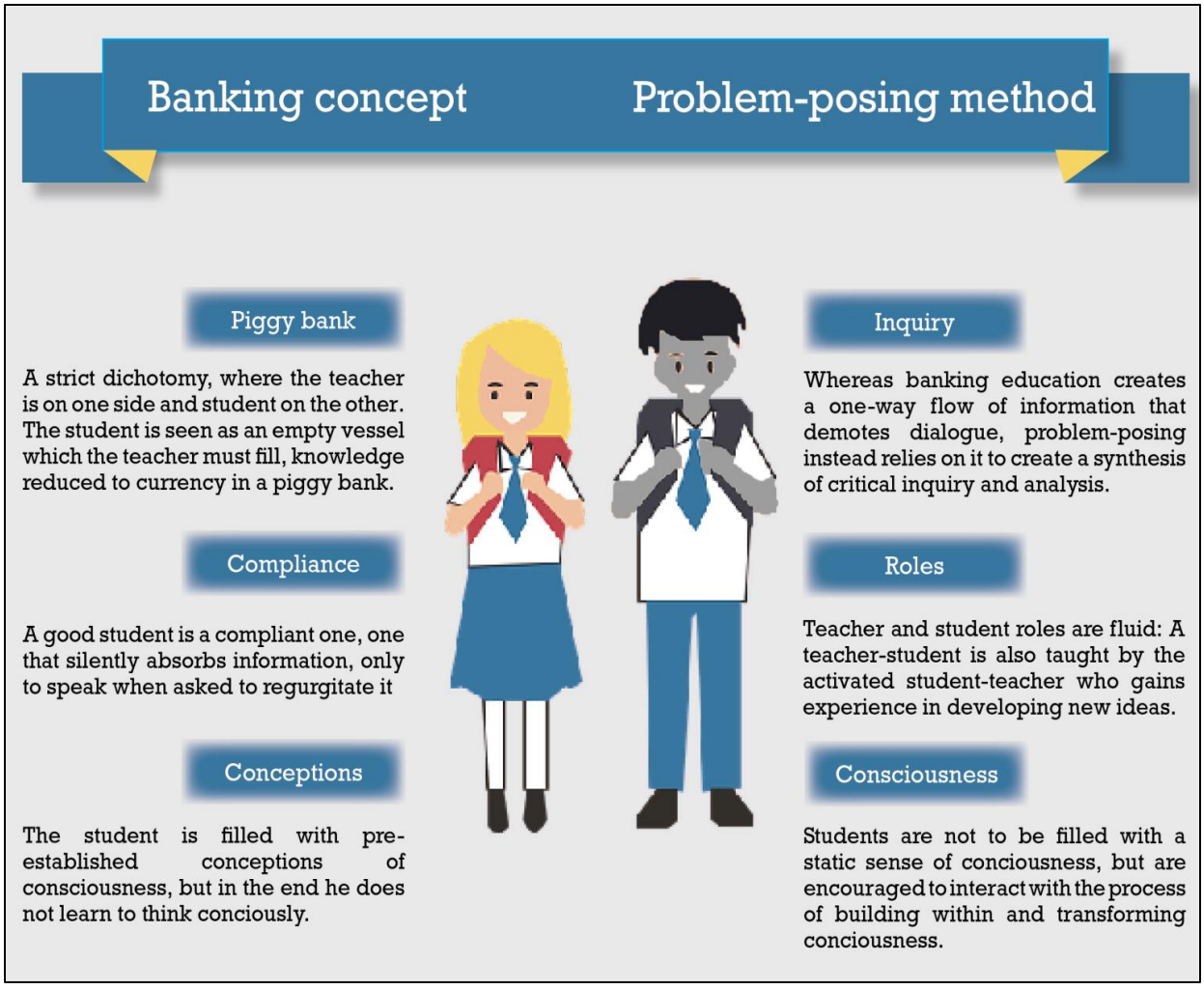


Figure 32. Visual representation of Banking Concept of Education vs. Education as Problem Posing

Refer to the three Freirean principles and guidelines (*saberes*) which teachers must implement in their practice to lead students in gaining *conscientización* and autonomy (*autonomia*) in their lives.

Conscientización in *Alfabetización*: Why Use SIFE's Linguistic and Cultural Experiential Universe?

Central to beginning the process of *conscientización* and *alfabetización* is understanding of and familiarity with SIFE learners' cultural reality and linguistic universe, because words selected for a literacy program must come from the student's existential reality. Brazilian political scientist Francisco Correia Weffort emphasized this point when he poignantly stated, "Words have a life of their own because they express people's work, pain, and hunger" (Freire, 1967, p. 6). This reminds us that words are never independent from their existential meaning in reference to real situations. As a result, teachers must foster dialogue among students and between students and teacher to learn about students' joys, anxieties, frustrations, beliefs, and hopes, in order to register words that represent those feelings (Freire, 1967; Garcia, 1974). As teachers become familiar with students' life experiences, their vocabulary universe, and what

is important to them, they are able to better select each of the 12-18 ***generative words*** to teach students how to read.

Consequently, the main purpose in investigating students' linguistic cultural universe is to collect the words most emotionally charged for the students who are going to use them. These words then act as a bridge from oral to written language in the process of learning to read. This vocabulary research is a deliberate and creative act, which leads to the discovery of people's lives through their words—their social reality. It also becomes the discovery of problems, ways of living—themes—for the act of reading will only reach its real meaning when it is connected with the learner's reality. Freire refers to the process of analyzing the social context as "reading the world," which should come before "reading the word" (Freire & Macedo, 1987; Rocha & Bulhões, 2012). This process must be achieved through dialogue between educators and the students who need to learn to read (Brandão, 1981)—a major principle in Freire's pedagogy.

Therefore, ***generative words*** must come from the students' world, represent their experiences, and be recognized and valued in the formal learning environment. Reading is language based. Consequently, the process of learning to read has to be based on the spoken language that students use. Traditionally ELs do not have this kind of experience. Herbert Kohl, who has written many books about teaching, and taught at public schools in Harlem and in Berkeley, California, and was a principal at the first alternative high school in Berkeley, taught and adapted Freire's ideas to his work. In an interview with Brown (1978), Kohl pointed out that students who have failed in school must know that they are not failures as people. It is imperative that teachers empower these students to realize that the system has failed them.

Freire used to say that no one chooses to be illiterate. People do not know how to read as a result of socio-cultural environments that have prevented them from becoming literate within

an unjust social system (Feitosa, 1999). Whether students' illiteracy results from lack of access to education in their childhood environment or is a consequence of our schools' failure to meet their needs, teachers must make students aware that their situation is not definitive for they can change it. Everything is possible. Students must have the opportunity to talk about their experiences and become aware that they are important and capable not only of learning to read, but also of doing many other valuable things.

Teachers' Role in Valuing Students and Their Cultures

According to Kohl, teachers must facilitate a conversation with and among students about their cultural realities—the circumstances and conditions of their lives (Brown, 1978). In the process, teachers lead students to an understanding of the anthropological concept of culture as a component of their reality. It is imperative that students understand their family's importance as beings capable of change and capable of changing the world. It is critical that they become aware that all types of work are significant in culture-making. For example, men or women who make clay pottery are as much artists as great sculptors or painters. The poetry of popular songs is as much culture as the poetry written by poets (Freire, 1974). Freire goes on to explain that nonliterate individuals need to have the opportunity to gain consciousness, to realize that culture is "all human creation" (Freire, 1974, p. 44). Thus they are empowered to realize that they and their families are important, independently of whether they can read.

Teaching Practices in Leading Students to Gain *Conscientización* and Agency to Change Their Lives through Dialogue

In the process of leading students to gain *conscientización* of the importance of learning to read and their ability to learn, the teacher must encourage dialogue and class discussion. For example, posing questions through the use of cooperative learning structures is an effective engaging approach, which ensures 100% student participation. Use Bloom's Taxonomy, (Bloom, 1956; see http://www.mandela.ac.za/cyberhunts/bloom.htm), as a basis for constructing questions that enhance students' high-level thinking and reasoning, and that develop intelligent Habits of Mind (https://www.chsvt.org/wdp/Habits_of_Mind.pdf, adapted from Costa & Kallick, 2000). Habits of Mind include the understanding and application of 16 problem-solving skills that will provide students with the necessary skills to work through real-life situations and be successful. (Refer to the suggested questions on pp. 53-61, connected with each of the generative words.)

Table 6 includes all the Spanish phonics that students must use to learn to read. The following section focuses on the use of generative words in the implementation of *alfabetización*.

Table 6
Spanish phonics checklist

Table 6 Spanish Phonics Checklist (Teacher Version)

General phoneme/graphemes	Vowels	a	[agua]
		e	[elefante]
		i	[iglesia]
		o	[oveja, pollo]
		u	[uvas]
	Consonants	b	[banana]
		c	[conejo]
		ch	[chocolate]
		d	[dedo]
		f	[familia]
		g	[gato]
		h	[helado]
		j	[juedo]
		k	[koala]
		l	[leche]
		ll	[lluvia]
		m	[maestro]
		n	[naranja]
		ñ	[niño]
		p	[pelota]
		qu	[queso]
		r /rr/	[rana]
		s	[sol]
		t	[taco]
		v	[vaca]
		w	[Walter]
		x /s/ /x/ /gs/ /ks/	[xilófono] [México] [excavar] [taxi]
		y	[yo]
		z /z/ /s/	[zero] [zapato]
Nasal grapheme/phonemes	Vowel/consonant combinations	am	[ambulancia]
		em	[noviembre]
		im	[chimpancé]
		om	[bombero]
		um	[cumpleaños]
		an	[canción]
		en	[centavo]
		in	[invierno] [patin]
		on	[avión]
		un	[jungla]

WORDS WITH 1, 2, 3, 4 or more SYLLABLES (Direct -> Indirect and -> Complex)	Double Consonants	ll	[cabello]
		rr	[carro]
	Digraphs	ch	[chancla]
	Consonant combinations	br	[libro]
		cr	[crayón]
		dr	[padre]
		fr	[frijoles]
		gr	[grillo]
		pr	[primo]
		tr	[trigo]
		bl	[blusa]
		cl	[bicicleta]
		fl	[flor]
		gl	[regla]
		pl	[plato]
		tl	[atleta]
	Special letter/sound Relationship	que	[queso]
		qui	[quilo]
		gue	[espagueti]
		gui	[guitarra]
		ce	[cereza]
		ci	[ciruela]
		ge	[gemelos]
		gi	[girafa]
	Oral Diphthongs	ai	[baile]
		ay	[raya]
		ei	[reina]
		ey	[rey]
		oy	[hoyo]
		au	[automóvil]
		eu	[Europa]
		ue	[escuela]

***Check your Understanding*:**
Use this section to write your notes or questions.

SECTION 3

PHASE THREE: THE FREIRE-UDL LITERACY MODEL'S IMPLEMENTATION: *ALFABETIZACIÓN*

Guiding Questions for Section 3

1. **How can the Freire-UDL model of *alfabetización* be implemented?**
2. **What are the major steps in implementing this approach to *alfabetización* in Spanish**

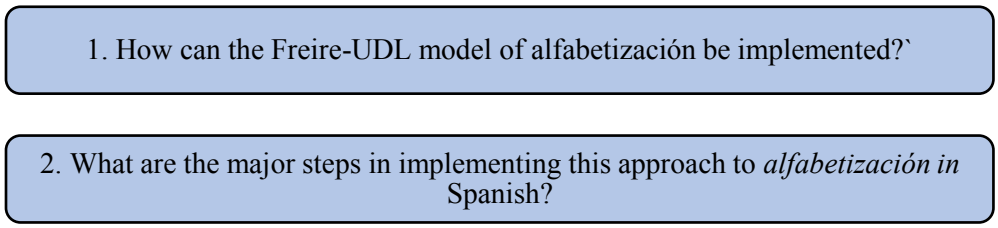


Figure 33. Graphic representation of Guiding Questions for Section 3

After Reading Section 3, You Will:

- **Understand how the Freire-UDL Model works**
- **Understand removing literacy learning barriers**
- **Know how to use the Freire-UDL Model to implement *alfabetización*, the second phase of the Freire-UDL Literacy Model**

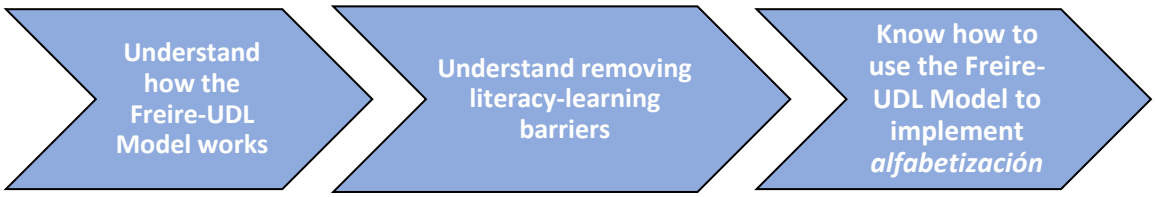


Figure 34. Visual representation of Takeaways from Section 3

This section of the guide introduces teachers to the Freire-UDL implementation steps and activities in the process of *alfabetización*. It is important to note that the steps shown below must be followed in introducing each ***generative word*** (on pp. 46-50). Table 7 provides a succinct description of each step.

Table 7

Six Steps in Alfabetización for Each Generative Word

Step 1	Introduce the picture related to the Generative Word and discuss/dialogue the ideas/themes generated by the picture with the aid of guiding questions (see pp. 41-42)
Step 2	Introduce the Generative Word Picture with the written version next to or below the picture (see p. 43)
Step 3	Introduce the written representation of the Generative Word alone without the visual (see p. 44)
Step 4	Introduce the Generative Word separated into syllables (see p. 45)
Step 5	Introduce the Discovery Card—*Análise da Palavra* (see page 39) with guided practice (see pp. 45-46)
Step 6	Have students create spelled words based on the syllables' letter-sound relationships in pairs or small groups (see p. 46)

STEP 1

Introduce the picture related to the Generative Word and discuss/dialogue the ideas/themes generated by the picture with the aid of guiding questions

The process of introducing the generative picture and discussing the ideas/themes may take one to two days

Use the Freire-UDL *Multiple Means of Representation* and *Multiple Means of Engagement in alfabetización.* Use existential situations that represent the ***generative word*** so it

comes alive for dialogue and discussion, facilitated with high-level thinking questions, leading students to *conscientización*. For example, the first word is *PELOTA*, soccer ball, which is the favorite, and most played, sport in most of Latin America. Use the generative picture of *PELOTA*, to promote *conscientización* around this theme.

- Use different ways to present the generative word picture
- A painting, picture or drawing projected from the computer (see below) OR
- A video clip of a soccer game OR
- A poster (included)

Figure 35. Picture of famous Portuguese soccer player Cristiano Ronaldo.

For example, you can show a picture like the one above along with *conscientización* questions such as:

- Where in the world do you think this is taking place?
- Do you play soccer, or do you know anyone who plays this favorite sport around the world?

- What is your favorite soccer team or soccer player? What do soccer players need to do to play well?
- Why is playing sports important? Does it require rules? Why?
- Why do we all need rules?
- Are all rules fair? When can rules be broken? Why?

You can also have students ask questions about the picture.

STEP 2

Introduce the Generative Word Below the Picture

After a foundational dialogue-discussion of the generative picture-word, introduce the word in writing below the visual, using *Multiple Ways of Representation*:

- Project the word below the generative picture from the computer, using the voice device **OR**
- Take the written word on a card and place it below the painting of a ball **OR**
- Write the word, using magnetic cards with syllables, and place them on the board below the drawing of a soccer ball **OR**
- Use a poster

Figure 36. Poster with Generative Picture

STEP 3

Introduce the Written Generative Word Alone

Present the generative word alone without the picture:

- Write the generative word on the board. Say it aloud slowly and syllabically **OR**
- Project it from the computer with the audio device for students to listen to the word being read / pronounced **OR**
- Spell the word using magnetic cards with the syllables and reading them aloud **OR**
- Other

Figure 37. Poster with Generative Word alone

STEP 4

Introduce the Word Separated into Syllables

Present the generative written word separated into syllables in one of multiple ways:

- Write the word *pe-lo-ta* separated into syllables on the board and read each syllable aloud as you go over it with your hand **OR**
- Project the word *pe-lo-ta* separated into syllables from the computer **OR**

- Use magnetic cards with the syllables on the board to form the word *pe-lo-ta* and read them aloud as you point to each syllable with the finger.

Figure 38. Example of *Generative Word* separated into syllables

STEP 5

Análisis de la Palabra —Discovery Card

Present the Discovery Card showing the generative word. The first generative word is composed of direct syllables: CV-CV-CV. (See Discovery Card 1)

- You must read aloud each syllable horizontally and vertically, pointing with your finger and have students repeat in a chorus Present the Discovery Card in three different ways.
- Read aloud the ***generative word*** and point to each syllable family on the poster and have students read in a chorus **OR**
- Project the discovery card from the computer and, as you point to each syllable and read aloud, students will repeat in a chorus **OR**
- Use magnetic letters to form the phonemic families of each syllable and read them aloud as students repeat in a chorus **OR**

pe-lo-ta				
pa	pe	pi	po	pu
la	le	li	lo	lu
ta	te	ti	to	tu

Figure 39. Poster of Discovery Card 1

STEP 6
Create/Spell New Words

Show students how they can create/spell new words using the syllables and letters of the written generative word. Point to the Discovery Card (see Figure 39 above: *pelota*).

- Show an example of how to make the word ***pelo*** (hair) by putting together the two syllables ***pe-lo*** from the discovery card.
- Show another example of how to make/spell the word **pala** (shovel) by putting together two of the syllables ***pa-la*** from the Pelota Discovery Card.

Provide multiple ways of moving the syllables in the Discovery Card to make new real words:

- Create new words with the syllables in the Discovery Card.
- Use magnetic syllables and move syllables to make a new word **OR**
- Handwrite words on each card or paper sticky **OR**
- Type your new words on the computer

Move the syllables to make new words pe-lo-ta				
pa	pe	pi	po	pu
la	le	li	lo	lu
ta	te	ti	to	tu

Figure 40. Poster of Discovery Card 2

At the end of these oral reading exercises with the syllables, have students work in groups to make as many combinations of syllables as they can to create new words. Later, after students learn the mechanism of combining phonemes to make new words, show the division of syllables in words that have consonant clusters in individual syllables.

Next Steps for Other Generative Words

Each day for two or three days, you must ***introduce the next generative picture before you introduce the written word,*** following the process described above. In step 6, students create and spell words with the syllables learned from the presented ***generative word*** and all the other syllables they have previously learned. As students continue learning new syllables, they will create new words in groups. Show students how to write the letters and have students help each other with handwriting. It is acceptable to use cursive or manuscript.

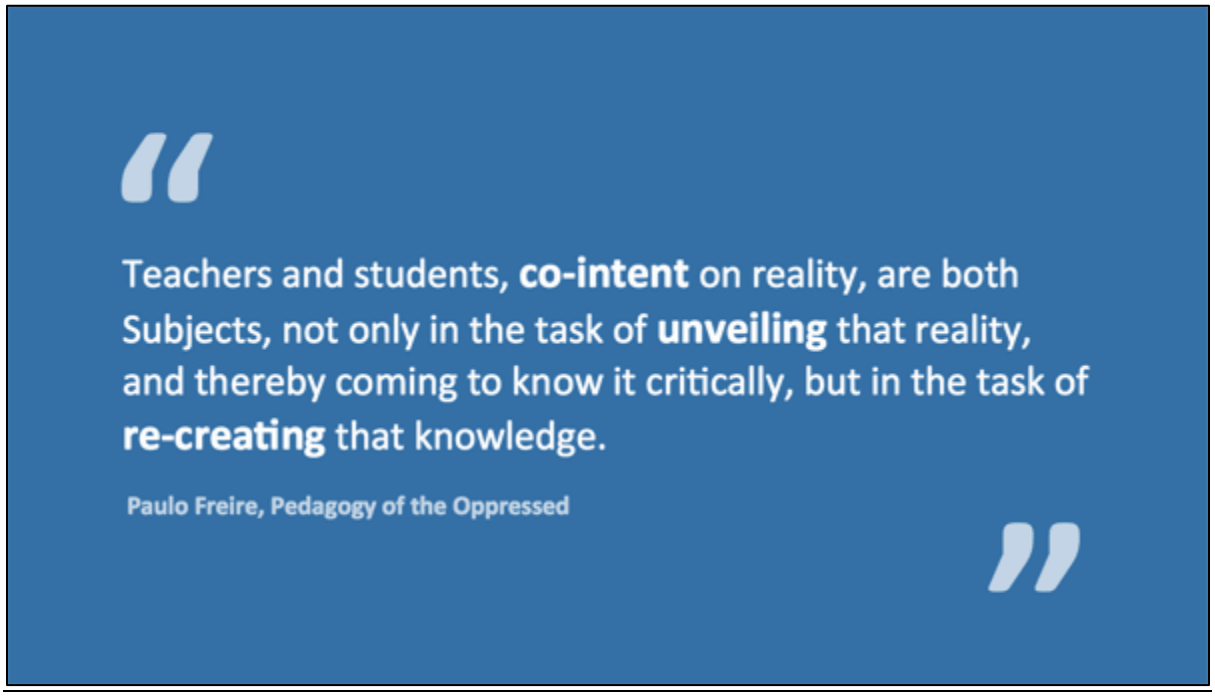
In the next section, I include the Spanish alphabet in Table 8, and in Table 9, I introduce the 17 Spanish ***generative words***, which cover all of the Spanish phonics in addition to questions that teachers may use for classroom discussion. The questions facilitate students' process of *conscientización*. Table 10 presents questions based on the revised Bloom's Taxonomy in Spanish. Table 11 explains how the suggested questions for *conscientización* are based on the integration of Bloom's Taxonomy, a tool that promotes students' higher-level thinking skills.

Table 8
Spanish Bilingual Alphabet

LETTER WRITING				LETTER IDENTIFICATION	
Print		Cursive		Letter Name	Letter Sound (ipt)
a	A	*a*	*A*	ah	/ah/
b	B	*b*	*B*	be	/b/
c	C	*c*	*C*	se	/s/
ch	Ch	*c h*	*Ch*	che	/tch/
d	D	*d*	*D*	de	/d/
e	E	*e*	*E*	eh	/eh/
f	F	*f*	*F*	efe	/f/
g	G	*g*	*G*	je	/g/ followed by a, o, u /hh/ followed by e, i
h	H	*h*	*H*	ache	h is silent
i	I	*i*	*I*	ee	/i/
j	J	*j*	*J*	jota	/x/
k	K	*k*	*K*	ka	/k/
l	L	*l*	*L*	ele	/l/
ll	LL	*ll*	*LL*	doble ele	/j/
m	M	*m*	*M*	eme	/m/
n	N	*n*	*N*	ene	/n/
ñ	Ñ	*ñ*	*Ñ*	eñe	/ny/
o	O	*o*	*O*	oh	/o/
p	P	*p*	*P*	pe	/p/
q	Q	*q*	*Q*	cu	/k/
r	R	*r*	*R*	ere	/r/ trilled r
rr		*rr*		erre	/rr/ strongly trilled r
s	S	*s*	*S*	ese	/s/
t	T	*t*	*T*	te	/t/
u	U	*u*	*U*	u	/u/
v	V	*v*	*V*	be/uve	/b/ There is no Spanish phoneme /v/
w	W	*w*	*W*	doble v	/ōo/
x	X	*x*	*X*	equis	/s/ xilófono /x/ México /gs/ excavar /ks/ taxi
y	Y	*y*	*Y*	i griega	/y/
z	z	*z*	*Z*	seta	/z/ zero /s/ zapato

Note. Adapted from https://mtss.madison.k12.wi.us/files/mtss/Spanish-Letters-Sound-System.pdf

Table 9 (see next page) presents the selected 17 Spanish ***generative words*** which cover all the vowel- and consonant-sounds in Spanish, along with questions that facilitate the process of *conscientização*.



Paulo Freire. https://akifrases.com/autor/paulo-freire

Table 9

Generative Picture and Generative Words with Sample Guiding Questions

Word	Picture	Vowels Diphthongs: Oral & Nasal	Consonants Digraphs Blends	Syllable Type	Sample of *Conscientización* Facilitating Questions for Dialogue among the students
pelota pe-lo-ta		a, e, i, o, u	p, l, t	direct CV	Why do people play sports? Why do you need rules? Are rules always fair? What do you do when rules are not fair?
2..familia fa-mi-li-a			f	direct	Why is family so important? How can friends be like family? There are different types of families? Why is it important to honor all families? What are some fundamental rules that families should follow? How can rules contribute in resolving conflicts? How can family members disagree without being disagreeable? See Covey (1997) *The 7 Habits of Highly Effective Families.*
3.mochila mo-chi-la			m, ch	direct	What are some instances when the use of a backpack might be very practical? Should girls' backpacks be different from boys' backpacks? Why or why not? How are some expectations of boys and girls different? Is that fair? What are other gender inequalities? Do you think these gender inequalities are fair? What can we do to change these gender inequalities?
4.cabeza ca-be-za			c, b, z	direct	What does it mean when people say that someone has a good head on her/his shoulders? Give an example of a situation when someone might have acted with his/her head/lost his head? Why is it important to learn to think? How can acting without thinking be very harmful? Give some examples! (**Cause and effect)**

Word	Picture	Vowels Diphthongs: Oral & Nasal	Consonants Digraphs Blends	Syllable Type	Sample of *Conscientización* Facilitating Questions for Dialogue among the students
5.lluvia llu-vi-a			ll, v	direct	Why is water important? Who and what depends on water? Why is it important to conserve water? How can you conserve water? Other
6. regalo re-ga-lo			r, g	direct	What was your most memorable gift? Why do people like to give and receive gifts? Is it necessary for all gifts to cost money? What might be a gift that you can give or receive that would not cost money?
7.guitarra gui-ta-rra			gui, rr (j, gue)	direct	Why is music important? What do you think it takes for a person to be a good guitarist? Why is persistence an important skill to have? What are some moments when people listen to music? Do you play an instrument? What does it take for someone to become a good musician? What other instruments do you know?
8..girasol gi-ra-sol			gi, r, s	direct	What kinds of feelings do you think a girasol evokes on people? Why? In what places can you find a girasol? Why are flowers important in life? Have you received a flower as a gift?
9.equipo e-qui-po			qui, p	indirect	Why is it important to be able to work as a team? What skills do you need to be able to work in a team? Is it more fun to work in a team? Why? What can you accomplish working in a team that you can't accomplish alone?
10.canción can-ción		an	ci, n	direct	What are your favorite songs about? How do you feel when you sing and listen to a favorite song? What are some topics that make up songs? Who are your favorite singing artists? Why?

Word	Picture	Vowels Diphthongs: Oral & Nasal	Consonants Digraphs Blends	Syllable Type	Sample of *Conscientización* Facilitating Questions for Dialogue among the students
11.inmigrante in-mi-gran-te		in	gr	complex	What contributions do immigrants make to U.S. society? What are some of the difficulties that immigrants face in the United States Why are immigrants so important in the make-up of the United States? Why do people immigrate?
12.bailar bai-lar		ai, ar		direct	Do you like to dance? Why? Do you know how to dance? What is your favorite dance? What are some benefits people can get from dancing? How can dances represent culture?
13.plata pla-ta			pl	direct	Why do people need money? What ways do people make money? Is having a lot of money the most important thing in life? What other things in life can be more important than money?
14.español es-pa-ñol		es, ol	ñ	complex	Why is it important to speak Spanish in addition to speaking English? Why should people be proud of speaking their native language? Is it fair when people are told not to communicate in their native language? Why? How can you help to change that?
15.extranjero ex-tran-je-ro	Foreigner 	an	x, j, tr, -r-	direct	Who is considered a foreigner? In what ways can foreigners be important for the economy of a country? How are foreigners different from the native population? What are some ways locals can make foreigners welcome in their new country?
16.comunicación co-mu-ni-ca-cion	Communication 	ci on		Direct & indirect	Why is communication between people important? What are some important characteristics of good communication? How do you resolve miscommunication? What are the most important communication skills? Why can miscommunication be harmful? *Many games are available to teach children communication skills.*

Next, Table 10 shows a list of questions in Spanish based on the revised six cognitive categories of Bloom's Taxonomy, with examples of questions for each category. When the teacher asks questions like these, students are led to engage in higher-level thinking that facilitates their learning and developing *conscientización*.

Table 10

Bloom's Critical Thinking Cue Questions Taxonomía de Bloom

Habilidades de Pensamiento de Bajo Nivel *(Low-Level Thinking Skills)*	***Habilidades de Pensamiento de Alto Nivel*** *(High-Level Thinking Skills)*
CONOCIMIENTO	***ANALISIS***
¿Qué es …?	*¿Cuáles son las partes o caracteristicas de---?*
¿Como es …?	*¿Cómo se relacionan ---- con----?*
¿Dónde está …?	*¿Por qué crees-----?*
¿Cuando ocurrió ---------?	*¿Cuál es el tema?*
¿Como ocurrió---------?	*¿Qué motivo hay------?*
¿Cómo lo explicarías-------?	*¿Qué conclusiones puedes sacar de--?*
¿Cómo lo describirías--------?	*¿Cómo clasificarías-----?*
¿Qué recuerdas de -----?	*¿Cómo puedes identificar las diferents partes-----?*
¿Cómo demostrarías---------?	*¿Qué evidencia puedes encontrar----?*
¿Quién (Que) fue el principal-----?	*¿Cuál es la relación entre?*
¿Puedes nombrar tres-----?	*¿Cómo puedes hacer una distinción entre----?*
¿Cómo se explica ------?	*¿Cuál es la función de-----?*
	¿Qué ideas justifican-----?
COMPRENSION	***EVALUACION***
¿Cómo clasificarías el tipo de ------?	*¿Por qué estás de acuerdo con las acciones?*
¿Cómo compararías…contrastarías---?	*¿los resultados-----?*
¿Cómo reformularías el significado--?	*¿Cuál es tu opinión de-------?*
¿Qué hechos o ideas demuestran----?	*¿Cómo probarías? ¿Desaprobarías--?*
¿Cuál es la idea principal de----?	*¿Cómo se puede evaluar el valor o la importancia de----?*
¿Qué declaraciones respaldan-----?	*¿Qué recomendarías----?*
¿Cómo puedes explicar lo que significa---?	*¿Cómo calificarías o evaluarías el---?*
¿Qué puedes decir sobre-----?	*¿Qué /escogesescogerías---?*
¿Cuál es la mejor respuesta----?	*¿Cómo priorizarías----?*
¿Cómo resumirías-----?	*¿Qué detalles usarías para apoyar----?*
	¿Por qué fue mejor que---?

Habilidades de Pensamiento de Bajo Nivel *(Low-Level Thinking Skills)*	***Habilidades de Pensamiento de Alto Nivel*** *(High-Level Thinking Skills)*
APLICACION	***CREACION***
¿Cómo usarías-----? ¿Qué ejemplos puedes dar para/por----? ¿Cómo podrías resolver----usando lo que has aprendido----? ¿Cómo organizarías-----para demostrar-? ¿Cómo demostrarías tu comprensión de? ¿Qué enfoque usarías-----? ¿Cómo aplicarías lo que aprendistes al desarrollar------? ¿De que otra manera planearías----? ¿Qué resultaría si------? ¿Cómo puedes hacer uso de los hechos-----? ¿Qué elementos elegirías cambiar---? ¿Qué hechos escogerías para demostrar-? ¿Qué preguntas harías en una entrevista?	¿Qué cambios harías para resolver---? ¿Cómo mejorarías----? ¿Qué pasaria si-----? ¿Qe informacion usarías para demostrar que-----? ¿Qué alternativa puedes proponer--? ¿Cómo puedes inventar----? ¿Cómo adaptarías ….para crear algo diferente---? ¿Cómo podrías cambiar (modificar) el plan----? ¿Qué se pudiera hacer para minimizar (maximizar)----? ¿De qué manera diseñarias----? ¿Qué podría combinarse para mejorar (cambiar)----? ¿Cómo probarías o formularías una teoría----? ¿Cuál sería tu predicción como resultado de-----? ¿Cómo se puede construir un modelo que cambie------? ¿Cuál es una forma original para el---?

Note. Retrieved from https://www.lcps.org/cms/lib/VA01000195/Centricity/Domain/9860/taxonomies.pdf

Translated by Maria João Mendes (2018) Translation validation by Mercedes Orozco, CAGS

Figure 41 features the Habits of Mind, which "are an identified set of 16 problem solving, life related skills, necessary to effectively operate in society and promote strategic reasoning, insightfulness, perseverance, creativity, and craftsmanship" (Costa & Kallick, 2000). The questions selected for each generative word are the operationalization of *Conscientización* in the context of current theories. Figure 41 presents the five main Habits of Mind with the corresponding 16 problem solving skills necessary to work through real life situations (Costa and Kallick, 2000).

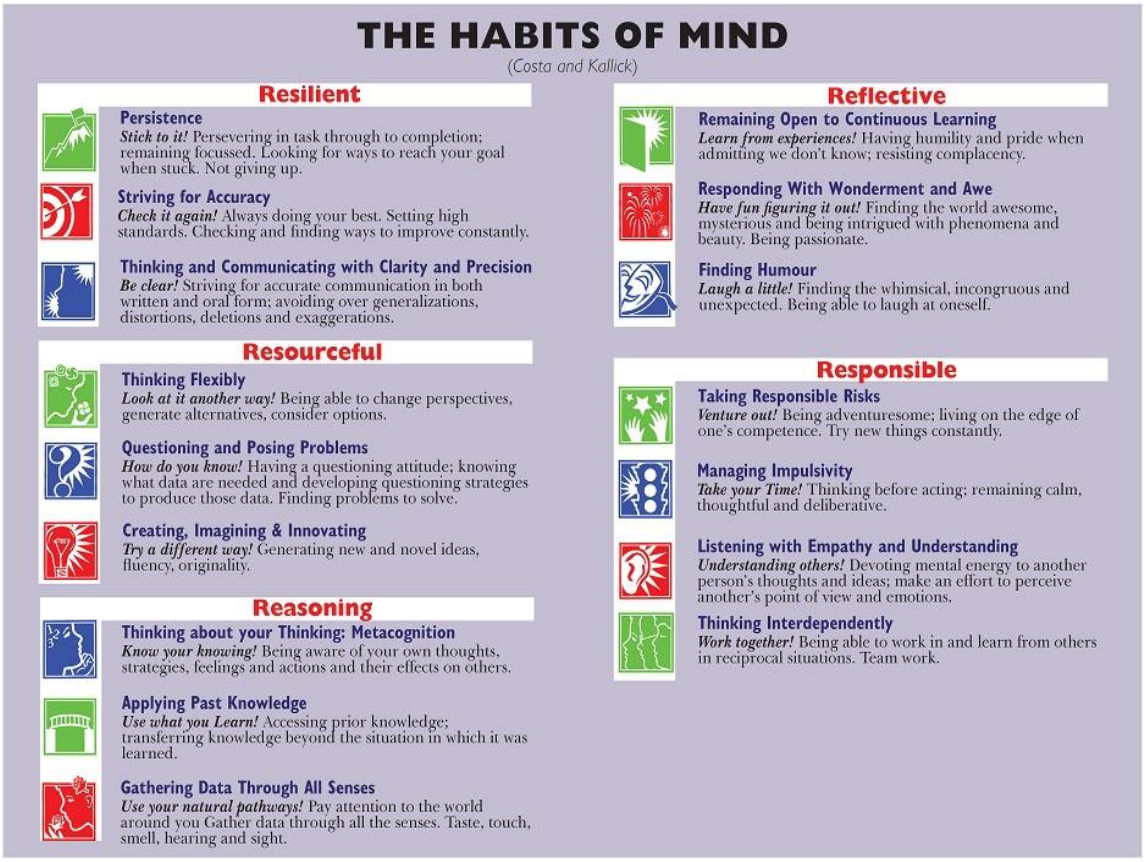


Figure 41. The Habits of Mind with the corresponding 16 problem-solving skills. From https://bilingualpe.blog/2018/03/14/habits-of-mind-nas-aulas-de-educacao-fisica/

Next, Table 11 presents the suggested questions in facilitating students' *conscientización* and informs how these questions are founded on the integration of the revised Bloom's Taxonomy and the Habits of Mind.

Following the table, to provide an overview of a real lesson, in the next section there is an example of a lesson plan for ***generative word 1***—*Pelota.*

Table 11

Generative Words and Questions for the Facilitation of Conscientización

Generative Words	High-level Thinking Questions	Bloom's Taxonomy	Habits of Mind
1-Pelota 	Why do people play sports? Why do we need rules? Are rules always fair? What do you do when rules are not fair?	Level 4 Q / Analyzing Level 4 Q / Analyzing Level 5 Q/ Evaluating Level 6 Q/ Creating	***Resourceful*** Questioning and Posing Problems Creating, Imagining & Innovating ***Reasoning*** Applying Past Knowledge Gathering Data Through All senses (Students begin practicing with questioning the world around them by developing /practicing a questioning attitude, learning to analyze, evaluate, and create according to Bloom's Taxonomy.)
2- familia 	Why is family so important? How can friends be like family? There are different types of families. Why is it important to honor all families? What are some fundamental rules that families should follow? How can rules contribute in resolving conflicts? How can family members disagree without being disagreeable?	Level 4 Q/ Analyzing Level 5 Q/ Evaluating Level 4 Q/ Analyzing Level 1 Q/ Understanding Level 3 Q/ Applying Level 4 Q/ Applying See Covey (1997) The 7 Habits of Highly Effective Families	***Responsible*** Managing Impulsivity Listening with Empathy and Understanding Thinking Interdependently (Students learn self- control by practicing thinking before acting, in other words, by being proactive instead of reactive when facing a difficult situation. They learn to stay calm and listen and perceive other people's point of view.)

Generative Words	High-level Thinking Questions	Bloom's Taxonomy	Habits of Mind
3-Mochila 	What are some instances when the use of a backpack might be very practical? Should girls' backpacks be different from boys' backpacks? Why or why not? How are some expectations of boys and girls different? Is that fair? What are other gender inequalities? Do you think these gender inequalities are fair? WHY? What can we do to change these gender inequalities?	Level 3 Q / Applying Level 5 Q / Evaluating Level 4 Q / Analyzing Level 4 Q / Analyzing Level 4 Q / Understanding Level 4 Q / Analyzing Level 6 Q / Creating	***Resourceful*** Thinking Flexibly Questioning and Posing Problems Creating, Imagining & Innovating (Students develop/practice a questioning attitude as they analyze the world around them. They also gain agency to change as they think of new ideas and ways to answer questions)
4-Cabeza 	What does it mean when people say that someone has a good head on her/his shoulders? Give an example of a situation when someone might have acted with his/her head? Give an example of a situation when someone might not have acted with his/her head? How can acting without thinking be very harmful? Give some examples!	Level 2 Q/ Understanding Level 3 Q/ Applying Level 3 Q/ Applying Level 5 Q/ Evaluating **Cause and effect**	***Reasoning*** Thinking About Your Thinking: Metacognition ***Responsible*** Managing Impulsivity (Students are led to develop metacognitive skills which will enable them to be cognizant of their thoughts, ideas, and actions and how they impact others.)

Generative Words	High-level Thinking Questions	Bloom's Taxonomy	Habits of Mind
5- Lluvia 	Why is water important? Who and what depends on water? Why is it important to conserve water? What ways can people use to conserve water?	Level 2 Q/ Understanding Level 3 Q/ Applying Level 3 Q/ Applying Level 6 Q/ Creating	***Resourceful*** Thinking Flexibly Questioning and Posing Problems Creating, Imagining & Innovating (Students are led to develop a questioning attitude by observing the world around them and identifying problems that must be solved. As they begin thinking about strategies to solve these problems, students gain agency to create change.)
6-Regalo 	What was your most memorable gift? Why do people like to give and receive gifts? Is it necessary for all gifts to cost money? What might be a gift that would not cost money?	Level 1 Q/ Remembering Level 4 Q / Analyzing Level 5 Q / Evaluating Level 6 Q / Creating	***Resourceful*** Thinking Flexibly Creating, Imagining & Innovating (Students develop/practice flexibility in their thinking by considering different options, alternatives and points of view.)
7- guitarra 	Why is music important? What do you think it takes for a person to be a good guitarist? Why is persistence an important skill to have? What are some moments when people listen to music? Do you play an instrument? What does it take for someone to become a good musician? What other instruments do you know?	Level 4 Q/ Analyzing Level 5 Q/ Evaluating Level 4 Q/ Analyzing Level 3 Q/ Applying Level 5 Q/ Evaluating Level 1 Q/ Remembering	***Resilience*** Persistence Striving for Accuracy (Students practice persistence in the attainment of goals by, for example, completing tasks without giving up. They learn /practice doing their best.)
8- girasol 	What kinds of feelings do you think a *girasol* evokes on people? Why? In what places can you find a *girasol*? Why are flowers important in life? Have you received a flower as a gift?	Level 5 Q/ Evaluating Level 1 Q/ Remembering Level 4 Q/ Analyzing Level 1 Q/ Remembering	***Reflective*** Responding with Wonderment and Awe (Students practiceseeing beauty in the world and show love and care for others.)

Generative Words	High-level Thinking Questions	Bloom's Taxonomy	Habits of Mind
9- equipo 	Why is it important to be able to work as a team? What skills do you need to have to be able to work in a team? Is it more fun to work in a team? Why? What can you accomplish by working in a team that you can't accomplish alone?	Level 3 Q/ Applying Level 5 Q/ Applying Level 5 Q/ Evaluating Level 4 Q/ Analyzing	***Responsible*** Thinking Interdependently Listening with Empathy and Understanding (Students practice listening to others and valuing other people's ideas, emotions, and ways of knowing. They also practice learning from others and its benefits, therefore, they practice respect for other people's ideas and thoughts in the completion of a task.)
10- canción 	What are your favorite songs about? How do you feel when you sing and listen to a favorite song? What are some topics that make up songs? Who are your favorite singing artists? Why?	Level 1 Q/ Remembering Level 2 Q/ Applying Level 1 Q/ Remembering Level 4 Q/ Analyzing	***Reasoning*** Thinking about your Thinking: Metacognition Gathering Data Through All Senses (Students are led to become aware of the ways they think and feel when they listen to music. They also practice paying attention to the World through their senses, in this case, hearing. They make the connection that music is art evoking the Wworld and its timeless themes. They also discuss messages from songs, etc.)
11- inmigrante 	What contributions do immigrants make to U.S. society? What are some of the difficulties that immigrants face in the United States? Why are immigrants so important in the make-up of the United States? Why do people immigrate?	Level 2 Q/ Understanding Level 5 Q/ Applying Level 4 Q/ Analyzing Level 4 Q/ Evaluating	***Resourceful*** a) Questioning and Posing Problems ***Reasoning*** a) Applying Past Knowledge (Based on their past experience as immigrants, [accessing prior knowledge] students are guided toward awareness that their background knowledge can go beyond their current situations to analyze other immigrants' circumstances and possibilities. They develop and practice high-level thinking dialogue that enables them to "read the world" by identifying problems and thinking of possibilities

Generative Words	High-level Thinking Questions	Bloom's Taxonomy	Habits of Mind
			that move them beyond the social reality of how immigrants are often perceived.)
12- bailar 	Do you like to dance? Why? Do you know how to dance? What is your favorite dance? What are some benefits people can get from dancing? How can dances represent culture?	Level 2 Q/ Understanding Level 1 Q/ Remembering Level 5 Q/ Applying Level 4 Q/ Analyzing	***Reflective*** Responding with Wonderment and Awe Finding Humor (Students will be led to realize that the world can be a fun place where they may practice enjoyable activities. They will learn about the beauty of dancing that they can enjoy. They will also learn that different dances are characteristic of different parts of the world and, therefore, represent different cultures.)
13- plata 	Why do people need money? What ways do people make money? Is having a lot of money the most important thing in life? What other things in life can be more important than money?	Level 1 Q/ Understanding Level 1 Q/ Understanding Level 5 Q/ Evaluating Level 5 Q/ Evaluating	***Resourceful*** Thinking Flexibly Questioning and Posing Problems (Students are led to question the importance of money and to develop strategies to compare and contrast the importance of money with that of being healthy orhaving a good supportive family and friends.)
14- español 	Why is it important to speak Spanish in addition to speaking English? Why should people be proud of speaking their native language? Is it fair when people are told not to communicate in their native language? Why? How can you help change that?	Level 2 Q/ Understanding Level 5 Q/ Evaluating Level 4 Q/ Analyzing Level 6 Q/ Creating	***Resourceful*** Questioning and Posing Problems (Students are led to develop a questioning attitude towards the world around them and to become aware of the importance of speaking two languages. They should also be led to value their cultures and language.)
15- extranjero 	Who is considered a foreigner? In what ways can foreigners be important for the economy of a country? How are foreigners different from the native population?	Level 2 Q/ Understanding Level 5 Q/ Evaluation Level 3 Q/ Applying Level 6 Q/ Creating	***Resourceful*** Thinking Flexibly Creating, Imagining & Innovating (Students are led to consider options, such as how foreigners might add to the economy of a country and

Generative Words	High-level Thinking Questions	Bloom's Taxonomy	Habits of Mind
	What are some ways the locals can make foreigners welcome to their country?		generate ideas and new ways to bring more foreigners into the country.)
16-comunicación 	Why is communication between people important? What are some important characteristics of good communication? How do you resolve miscommunication? What are the most important communication skills? Why can miscommunication be harmful?	Level 2 Q/ Understanding Level 3 Q/ Applying Level 6 Q/ Creating Level 5 Q/ Evaluating Level 4 Q/ Analyzing	***Responsible*** Managing Impulsivity Listening with Empathy and Understanding (Students will learn the characteristics of good communication through games. They will practice remaining calm when they disagree with others. They also must learn to be respectful of others' ideas and emotions.)

***Check your Understanding*:**

Use this section to write your notes or articulate your questions.

LESSON PLAN EXAMPLE
FOR GENERATIVE PICTURE AND WORD 1-PELOTA

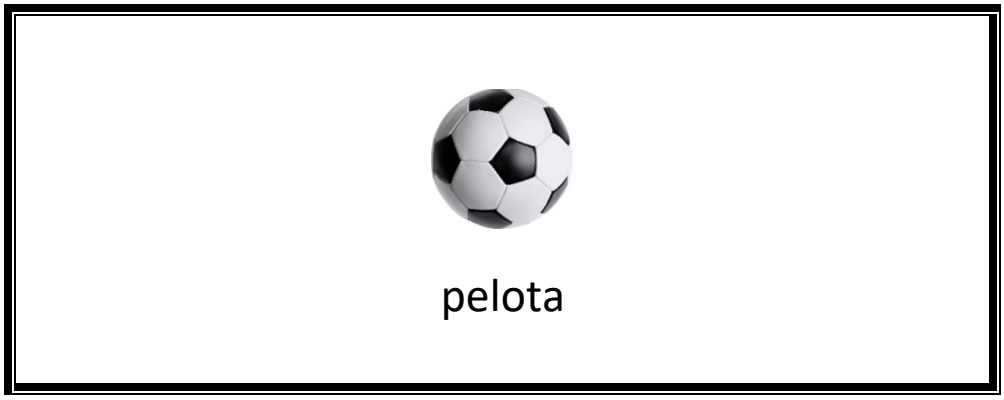


Figure 42. Poster of Generative Word-*Pelota*

Lesson Goals and Outcomes/Objectives

1. Students are introduced to the process of their own *conscientización* within *alfabetización.*
2. Students begin the connection between oral communication with its printed representation by letters and syllables.
3. In the context of the given generative word syllables, students recognize, read, and write:
    - 3 consonant sounds[17] [p l t]
    - 5 vowel sounds [a e i o u]

[17] Do not mention alphabet letter names. Students will learn the names of letters in addition to their sounds as soon as they become fluent readers in Spanish. At this early stage of the encoding process, letter names cause confusion.

4. In pairs, individually, or in a large group, students construct/spell/handwrite new words based on the written syllables. (identifying them by letter sound only)
5. Students create a word game with the list of words discovered in this lesson

Lesson Step 1
Building Class Community & Picture Introduction

Goals of conversation and discussion:

a. To build community: team building and class building
b. To provide the opportunity to students, as well as the teacher, to introduce themselves and their own stories.

To facilitate classroom conversation among students to foster their *Conscientización,* which includes high-level thinking and habits of mind, it is essential to build classroom community in all sessions, beginning with the first class.

Use different activities in building classroom community and facilitating the process of conscientización. Cooperative learning structures are an efficient way to engage students in the American classroom.

Activity: Who are the members of our learning community in this class?

The first activity in this process of *alfabetización* is to invite and provide students with a safe environment where they sit in a circle or in groups of four, for them to share their story and their first name. (1) Write each one of their names on a wall poster (See Appendix E), and (2) Invite each one by written name to share their own story. They can speak, show pictures, and draw, etc. Begin to teach them to write their own name.

Before you begin any lesson, please take a few minutes to continue to build community. You may choose one of the following examples:

a. Class Birthday Line— Have students line up according to the months and days of their birthdays, beginning with January, without speaking to each other. (Students will have to decide what strategy to use to organize themselves) **OR**
b. Mix-Pair-Share— Play upbeat music while students mix through the classroom. When the teacher stops the music, students pair up with the nearest classmate and take turns thinking and answering questions.
c. Inside-Outside Circle— Ask students to form two concentric circles, the inside circle and the outside circle. The inside circle faces outward while the outside circle faces inward. Students pair up, giving and answering teacher's question, taking turns. Then teacher asks the inside or outside circle students to rotate to a new partner. **OR**
d. Have students make a circle and model the following activity with a soccer ball. Hold the ball and say your name in Spanish. Then pass the ball to a student, who will thank you, saying, "Gracias, Ms…. Mi nombre es …." That student will pass the ball to another student, who will thank the previous student by using his/her name and proceeding to introducing his/her name. This will continue several times until everyone has introduced their name. Repeat the activity at a faster pace.

(See Kagan, 2015, for more information on class building and team building activities).

Dialogue to facilitate students' *conscientización*

a. After students have learned one another's names, introduce the first generative picture by presenting it in one of three ways:
b. Bring the actual object (i.e. a soccer ball) to class **OR**

c. Show a poster with the generative picture of the generative word *ball* **OR**

d. Use PPT and project the picture from the computer

Figure 43. Poster of Generative Picture

Lesson Step 2
Dialogue Among All Students and the Teacher: Oral Communication

Guiding questions for class-building (example)

a. Do you like soccer? Have you played soccer? Where?

b. Do you belong to a soccer team in school or outside of school?

c. Describe to your partner a memorable moment when you were playing a sport. Explain why it is memorable.

Guiding questions for class building (example)

The following are examples of guiding questions for *conscientización,* following the class-building discussion. You can use Mix-Pair-Share or other cooperative learning structures to get students to think with each other.

a. Why is it important to play soccer or any other team sports?

b. Why do you/we all need rules?

c. Do you know any famous soccer player? What did each one have to do to be able to play so well? (persistence and practice)

d. What is your favorite soccer team or soccer player? What do soccer players need to do to play well?

e. Why is playing sports important? Does it require rules? Why?

f. Are all rules fair? Why?

Lesson Step 3
Introduce the Written Word *Pelota*

Present the word *pelota* in one of 3 ways, depending how you introduced the picture in Step 1:

a. Show the word *pelota* under the picture of a ball from the computer, using the voice device OR

b. Show a poster with a soccer ball and the word below OR

c. Present the word *pelota* using magnetic cards with syllables and place them on the board below the drawing of a soccer ball.

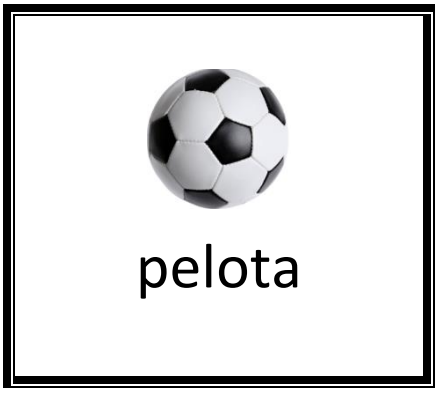


Figure 44. Poster of Generative Picture and Generative Word

Lesson Step 4
Introduce the Generative Word *Pelota* Without the Picture

Present the word *pelota* alone without the visual in one of three different ways:

a. Show the card with the word *pelota* alone

b. Write the word *pelota* on the board and read it aloud very slowly as you go over the word with your finger **OR**

c. Project the word *pelota* from the computer with the audio device for students to listen to the word being read **OR**

d. Spell the word *pelota* using magnetic cards with syllables and reading them aloud

Figure 45. Poster with Generative Word

Lesson Step 5
Re-introduce the Generative Word *Pelota* Separated into Syllables

Present the word *pelota* separated into syllables to students in three ways:

a. Ask students to say the word in syllables by clapping, touching the desk, etc. Show the written word *pe-lo-ta* separated into syllables on a card and read each syllable aloud as you go over it with your finger or with a pointer **OR**

b. Project the word *pe-lo-ta* separated into syllables from the computer **OR**

c. Present the written word with magnetic cards with syllables on the board to form the different syllables of the word *pe-lo-ta* and read them aloud as you point to each syllable with the finger

pe-lo-ta

Figure 46. Poster of word- pelota separated into syllables

Lesson Step 6
Introduce the Discovery Card with the Word Pelota

Introduce the Discovery Card, which is the introduction of each syllable of the generative word with all the phonemic families in the word *pelota* in three ways:

a. Show the Discovery Card with the separated syllables for the word *pelota* on a poster (see Figure 46). Read *pe lo ta* and, as you slowly point and read the syllables horizontally, ask students to repeat after you in a chorus. Then slowly point and read the syllables vertically as students repeat in a chorus. Finally, point to different syllables at random and read them aloud.

b. Project the Discovery Card for the word *pelota* from the computer and, as you point to each syllable and read aloud, students will repeat in a chorus, following the same process.

c. Make a Discovery Card with chalk on the board and repeat the same process.

pe-lo-ta				
pa	pe	pi	po	pu
la	le	li	lo	lu
ta	te	ti	to	tu

Figure 47. Poster of Discovery Card showing the word *pelota*

Lesson Step 7
Introduce the Process of Making /Spelling New Words Based on the Syllables and Letters in the Discovery Card

Introduce the process of making new words from the Discovery Card

a. Point to the Discovery Card for the word *pelota* on the poster (see Figure 47)

b. Read aloud each syllable horizontally and vertically, pointing with your finger and have students repeat in a chorus.

c. Give two or three examples of the process of making new words by putting syllables together. Have students work as a whole group, in groups of four, or in pairs to create as many real words as they can, based on the Discovery Card.

pe-lo-ta				
pa	pe	pi	po	pu
la	le	li	lo	lu
ta	te	ti	to	tu

Figure 48. Poster of the Discovery Card showing the word *pelota*

Guided Practice:

a. Students sit in groups of four. Each group must have a Discovery Card for the word *pelota* (see above). Give each group a piece of lined paper and a pencil. Each student in the group will get a turn to take the paper and pencil and write a word that he/she created with the syllables. After that, each group will tape their paper on the wall corner of the

classroom. Then students will have a chance to walk around and look at the words created by their colleagues.

b. Groups will go back to their seats with their posted papers. Teachers will distribute blank cards on which each student will copy the words created by the group. Then each student will turn to the partner in front of them and take turns dictating and writing each word.
c. Have students create real words with the given syllables and or letters from the generative word.
d. Have students create a picture word bank in the computer, iPad, etc.
e. Have students create spelling games using the website www.kahoot.com .
f. Have students create a simple crossword puzzle with the words they have discovered which are contained in the generative word.
g. Have students read each other's words and group them according to their own criteria.
h. Have students pass out sheets with different pictures of words that can be created from the Discovery Card.
i. Have students also create puzzles from the Discovery Card in each group

Optional homework after the first class:

a. Have students create as many words as they can by using the syllables learned from the word *pelota*.
b. Have students read the list of words created by the class community and categorize the words that they have created from the word *pelota* in any way they would like.
c. Copy words under each group and bring them to class the next day.

***Check your Understanding*:**

Use this section to write your notes or questions.

SECTION 4

PHASE FOUR: FREIRE-UDL LITERACY MODEL IMPLEMENTATION—ASSESSMENT

In Phase 4, the focus is on formative assessment,[18] which is key in the implementation of the Freire-UDL Literacy-*Alfabetización* Model. After the guided practice in spelling new real words made up of letters and syllables from the generative words, through which students have practiced their decoding and encoding of letter-sound relationships from the word to the syllable to the letter/sound back to the word, it is imperative to assess students' understanding and knowledge. Therefore, you must provide students with multiple ways of expressing their knowledge of reading and spelling words with the syllables and letter sounds that they have learned and used to that point.

In every lesson, students work in pairs to create/write/spell as many words as they can, by using syllables from the learned generative words and by using the respective discovery cards. In addition, they use strategies to assess and practice the reading and writing of the skills learned. The following are some examples of ways in which students can show they have learned the lesson outcomes. They can self-assess or peer assess, or they can be assessed by the teacher's observation of their performance during Guided Practice. Teachers can assess students while they participate in different activities.

[18] Formative assessment is the process of evaluating students' performance to inform teachers' instruction (Meyer, Rose, & Gordon, 2014).

Assessment Method 1

a. Students can create puzzles from the *Discovery Card*, **OR**

b. Have students sit in pairs and dictate words to each other, **OR**

c. Ask students to sit in pairs to self-assess by asking each other what do they already know how to spell well, and what sounds they need to practice more. **OR**

d. In groups, students can work on putting words in categories that they create. **OR**

e. Students can make analogies with the words they have created. **OR**

f. Divide the class into two groups. Have each group write each created word on an index card. Then have each group take turns selecting a word from a card and reading it aloud to the other group. The student who is holding the card with that word from the other group shows it to the class. **OR**

g. Distribute a sheet with different pictures of words students can create from *Discovery Cards* and have them label the pictures. (See example below for the word *pelota*).

Assessment Method 2

To assess students' understanding of connecting letters with spoken word sounds, have students write the words created at the end of each lesson; use the options below. In groups, students may:

a. create a Picture Word Bank **OR**

b. create a crossword puzzle **OR**

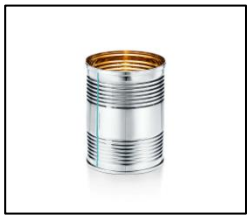
c. read each other's words and group them according to their own criteria **OR**

d. have a contest: in which the group that creates the most words with the syllables studied is the winner **OR**

e. label pictures of objects whose can be created from the Discovery Card

See next page for an example for the word *Pelota*:

Nombre:_____

a-  _____ _____ - _____ _____ _____	**b-**  ___ ___ - ___ ___
c-  _____ _____ _____ _____	**d-**  _____ _____ _____ _____

Conclusion and Recommendations

The first phase of the *Teacher's Guide* has provided the foundational steps to implement the Freire-UDL Model of Literacy with Spanish-speaking SLIFE. Participants were asked to provide their insights and recommendations.

NOTES:

Sí, se puede! Aprender a leer y escribir muy rápido!

Beginning on the next page, you'll find a section of Resources for implementing this *Guide*

Resource A. Taxonomía de Bloom

Habilidades de Pensamiento de Bajo Nivel

Habilidades de Pensamiento de Alto Nivel

CONOCIMIENTO

- ¿Qué es ...?
- ¿Como es ...?
- ¿Dónde está ...?
- ¿Cuando ocurrió ---------?
- ¿Como ocurrió---------?
- ¿Cómo lo explicarías-------?
- ¿Cómo lo describirías--------?
- ¿Qué recuerdas de -----?
- ¿Cómo demostrarías---------?
- ¿Quién (Que) fue el principal-----?
- ¿Puedes nombrar tres-----?
- ¿Cómo se explica ------?

ANALISIS

- ¿Cuáles son las partes o caracteristicas de-----?
- ¿Cómo se relacionan ---- con----?
- ¿Por qué crees-----?
- ¿Cuál es el tema?
- ¿Qué motivo hay------?
- ¿Qué conclusiones puedes sacar de--?
- ¿Cómo clasificarías-----?
- ¿Cómo puedes identificar las diferents partes------?
- ¿Qué evidencia puedes encontrar----?
- ¿Cuál es la relación entre?
- ¿Cómo puedes hacer una distinción entre-----?
- ¿Cuál es la función de-----?
- ¿Qué ideas justifican-----?

COMPRENSION

- ¿Cómo clasificarías el tipo de ------?
- ¿Cómo compararías...contrastarías---?
- ¿Cómo reformularías el significado--?
- ¿Qué hechos o ideas demuestran----?
- ¿Cuál es la idea principal de----?
- ¿Qué declaraciones respaldan-----?
- ¿Cómo puedes explicar lo que significa-----?
- ¿Qué puedes decir sobre-----?
- ¿Cuál es la mejor respuesta----?
- ¿Cómo resumirías-----?

EVALUACION

- ¿Por qué estás de acuerdo con las acciones? ¿los resultados-----?
- ¿Cuál es tu opinión de-------?
- ¿Cómo probarías? ¿Desaprobarías--?
- ¿Cómo se puede evaluar el valor o la importanciade----?
- ¿Qué recomendarías----?
- ¿Cómo calificarías o evaluarías el---?
- ¿Qué /escogesescogerías---?
- ¿Cómo priorizarías----?
- ¿Qué detalles usarías para apoyar----?
- ¿Por qué fue mejor que---?

APLICACION

- ¿Cómo usarías-----?
- ¿Qué ejemplos puedes dar para/por----?
- ¿Cómo podrías resolver-usando lo que has aprendido----?
- ¿Cómo organizarías-----para demostrar-?
- ¿Cómo demostrarías tu comprensión de?
- ¿Qué enfoque usarías-----?
- ¿Cómo aplicarías lo que aprendistes al desarrollar-?
- ¿De que otra manera planearías----?
- ¿Qué resultaría si------?
- ¿Cómo puedes hacer uso de los hechos-----?
- ¿Qué elementos elegirías cambiar---?
- ¿Qué hechos escogerías para demostrar-?
- ¿Qué preguntas harías en una entrevista?

CREACION

- ¿Qué cambios harías para resolver---?
- ¿Cómo mejorarías----?
- ¿Qué pasaria si-----?
- ¿Qe informacion usarías para demostrar que-----?
- ¿Qué alternativa puedes proponer--?
- ¿Cómo puedes inventar----?
- ¿Cómo adaptarías ....para crear algo diferente---?
- ¿Cómo podrías cambiar (modificar) el plan----?
- ¿Qué se pudiera hacer para minimizar (maximizar)----?
- ¿De qué manera diseñarias----?
- ¿Qué podría combinarse para mejorar (cambiar)----?
- ¿Cómo probarías o formularías una teoría----?
- ¿Cuál sería tu predicción como resultado de-----?
- ¿Cómo se puede construir un modelo que cambie------?
- ¿Cuál es una forma original para el---?

English Version Retrieved March 20, 2018 from https://www.lcps.org/cms/lib/VA01000195/Centricity/Domain/9860/taxonomies.pdf
Translated by Maria Joao Mendes ©2018 Validated by Orzoco Arria (2018)

Resource B. Habits of Mind Poster

From https://bilingualpe.blog/2018/03/14/habits-of-mind-nas-aulas-de-educacao-fisica/

Resource C. Poster con los Nombres de los Estudiantes en la classe

	Niños	Niñas
1.	Juan	Maria
2.		Rosita
3.		
4.		
5.		
6.		
7.		
8.		

Resource D. Spanish Generative Words with Phonemic Families

Word	Vowel Diphthongs Oral & Nasal	Consonants Digraphs Blends	Phonic Families				
pelota pe-lo-ta	a, e, i, o, u	p, l, t	pa	pe	pi	po	pu
			la	le	li	lo	tu
			ta	te	ti	to	tu
familia fa-mi-li-a	a,e i o u	f, m. l	fa	fe	fi	fo	fu
			ma	me	mi	mo	mu
			la	le	li	lo	lu
			a	e	i	o	u
mochila mo-chi-la	a, e, i, o, u	m, ch, l	ma	me	mi	mo	mu
			cha	che	chi	cho	chu
			la	le	li	lo	lu
cabeza ca-be-za	a, e, l, o, u	c, b, z	ca			co	cu
			ba	be	bi	bo	bu
			za	ze	zi	zo	zu
lluvia llu-vi-a	a, e, i, o, u	ll, v	lla	lle	lli	llo	llu
			va	ve	vi	vo	vu
			a	e	i	o	u
plata pla-ta	a, e,i , o, u	pl, t	pla	ple	pli	plo	plu
			ta	te	ti	to	tu
regalo re-ga-lo	a, e, i, o, u	r, g, l	ra	re	ri	ro	ru
			ga			go	gu
			la	le	li	lo	lu
guitarra gui-ta-rra	a, e, i, o, u	gui, t, rr,	ga	gue	gui	go	gu
				ge	gi		
			ta	te	ti	to	tu
			rra	rre	rri	rro	rru
girasol gi-ra-sol	a, e, i, o, al el il ol ul	gi(e) r, s, l	ga	ge	gi	go	gu
			ra	re	ri	ro	ru
			sal	sel	sil	sol	sul
equipo e-qui-po	a, e, i, o, u	qui, p	a	e	i	o	u
				que	qui		
			pa	pe	pi	po	pu
comunicación co-mu-ni-ca-ci ón	a, e, i, o, u	ci, ce	ca	ce	ci	co	cu
				que	qui		
			ma	me	mi	mo	mu
			na	ne	ni	no	nu
			an	en	in	ón	un

Word	Vowel Diphthongs Oral & Nasal	Consonants Digraphs Blends	Phonic Families				
canción can-ción	an, en, in, on, un	ci,	an	en	in	on	un
			ca	ce	ci	co	cu
			can	cen	cin	con	cun
inmigrante in-mi-gran-te		gr, tr	an	en	in	on	un
			ma	me	mi	mo	mu
			gran	gren	grin	gron	grun
			ta	te	ti	to	tu
bailar bai-lar	ai, ei oi ui ar er ir or ur	b, l	bai	bei		boi	bui
			lar	ler	lir	lor	lur
español es-pa-ñol	es, as,is os us al el il ol ul	ñ	as	es	is	os	us
			pa	pe	pi	po	pu
			ñal	ñel	ñil	ñol	ñul
extranjero ex-tran-je-ro	ex an, en, in, on, un	x, j, tr, -r-	ax	ex	ix	ox	ux
			tran	tren	trin	tron	trun
			ja	je	ji	jo	ju
			ra	re	ri	ro	ru

Resource E. Spanish Alphabet

LETTER WRITING				LETTER IDENTIFICATION	
Print		Cursive		Letter Name	Letter Sound (ipt)
a	A	*a*	*A*	ah	/ah/
b	B	*b*	*B*	be	/b/
c	C	*c*	*C*	se	/s/
ch	Ch	*c h*	*Ch*	che	/tch/
d	D	*d*	*D*	de	/d/
e	E	*e*	*E*	eh	/eh/
f	F	*f*	*F*	efe	/f/
g	G	*g*	*G*	je	/g/ followed by a, o, u /hh/ followed by e, i
h	H	*h*	*H*	ache	h is silent
i	I	*i*	*I*	ee	/i/
j	J	*j*	*J*	jota	/x/
k	K	*k*	*K*	ka	/k/
l	L	*l*	*L*	ele	/l/
ll	LL	*ll*	*LL*	Doble ele	/j/
m	M	*m*	*M*	eme	/m/
n	N	*n*	*N*	ene	/n/
ñ	Ñ	*ñ*	*Ñ*	eñe	/ny/
o	O	*o*	*O*	oh	/o/
p	P	*p*	*P*	pe	/p/
q	Q	*q*	*Q*	cu	/k/
r	R	*r*	*R*	ere	/r/ trilled r
rr		*rr*		erre	/rr/ strongly trilled r
s	S	*s*	*S*	ese	/s/
t	T	*t*	*T*	te	/t/
u	U	*u*	*U*	u	/u/
v	V	*v*	*V*	be/uve	/b/ There is no Spanish phoneme /v/
w	W	*w*	*W*	doble v	/ōo/
x	X	*x*	*X*	equis	/s/ xilófono /x/ México /gs/ excavar /ks/ taxi
y	Y	*y*	*Y*	i griega	/y/
z	z	*z*	*Z*	seta	/z/ zero /s/ zapato

Note. Adapted from https://mtss.madison.k12.wi.us/files/mtss/Spanish-Letters-Sound-System.pdf

Resource F. Spanish Phonics Self-Assessment Checklist (Student Version)

Nombre_____

- ☐ a
- ☐ e
- ☐ i
- ☐ o
- ☐ u

- ☐ p
- ☐ l
- ☐ t
- ☐ f
- ☐ m
- ☐ l
- ☐ ch
- ☐ cf
- ☐ b
- ☐ z
- ☐ ll
- ☐ v
- ☐ r
- ☐ g
- ☐ ge
- ☐ gui
- ☐ gue

- ☐ r
- ☐ s
- ☐ qui
- ☐ que
- ☐ an
- ☐ en
- ☐ in
- ☐ on
- ☐ un
- ☐ ci
- ☐ n
- ☐ gr
- ☐ tr
- ☐ br
- ☐ cr
- ☐ dr
- ☐ fr
- ☐ er
- ☐ ir
- ☐ or
- ☐ ur
- ☐ -r-
- ☐ gi
- ☐ ei

- ☐ pl
- ☐ bl
- ☐ cl
- ☐ fl
- ☐ gl
- ☐ tl
- ☐ as
- ☐ es
- ☐ is
- ☐ os
- ☐ us
- ☐ al
- ☐ el
- ☐ il
- ☐ ol
- ☐ ul
- ☐ ñ
- ☐ x
- ☐ j

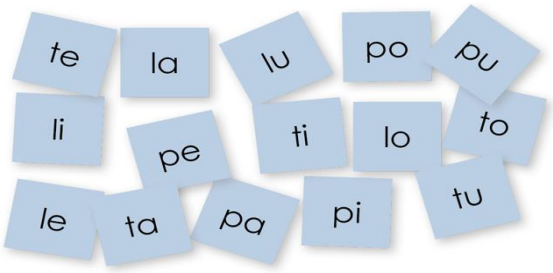
Resource G. Discovery Cards

Generative Word - pelota

pe-lo-ta

pa	pe	pi	po	pu
la	le	li	lo	lu
ta	te	ti	to	tu

Syllables from pelota



Generative Word - familia

fa-mi-li-a

fa	fe	fi	fo	fu
ma	me	mi	mo	mu
la	le	li	lo	lu
a	e	i	o	u

Syllables from familia

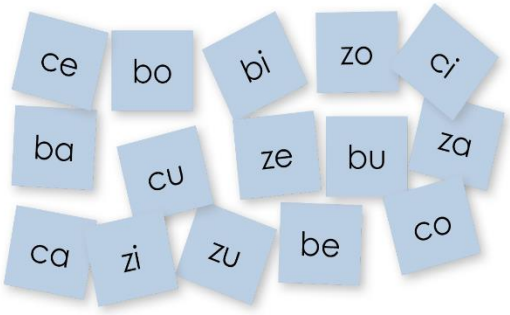
After introducing the second generative word familia in the process of conscientización and in the reading guided practice, the creation of real words is now based on the combination of syllables, letters, and letter-sound-syllables learned in the previous lessons.

Generative Word - cabeza

ca-be-za

ca	ce	ci	co	cu
ba	be	bi	bo	bu
za	ze	zi	zo	zu

Syllables from cabeza

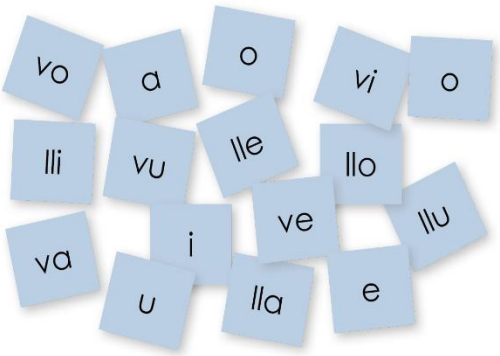


Generative Word - lluvia

llu-vi-a

lla	lle	lli	llo	llu
va	ve	vi	vo	vu
a	e	i	o	u

Syllables from lluvia

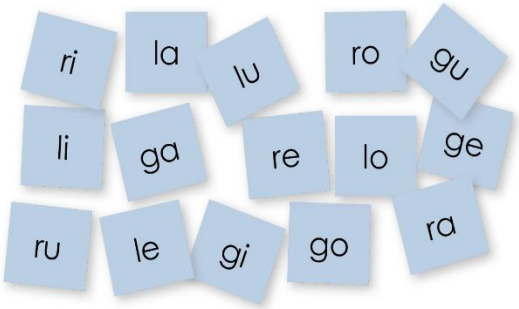


Generative Word - regalo

re-ga-lo

ra	re	ri	ro	ru
ga	ge	gi	go	gu
la	le	li	lo	lu

Syllables from regalo

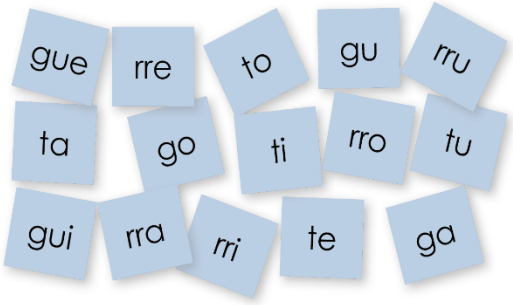


Generative Word - guitarra

gui-ta-rra

ga	gue	gui	go	gu
ta	te	ti	to	tu
rra	rre	rri	rro	rru

Syllables from guitarra

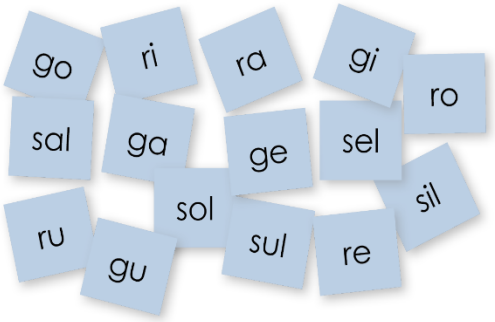


Generative Word - girasol

gi-ra-sol

ga	ge	gi	go	gu
ra	re	ri	ro	ru
sal	sel	sil	sol	sul

Syllables from girasol

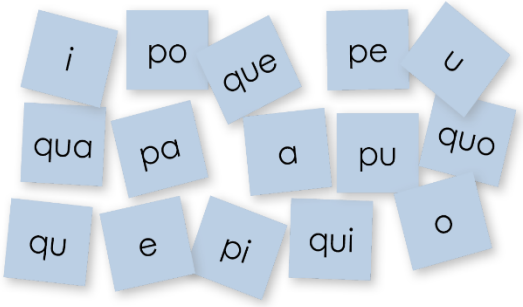


Generative Word - equipo

e-qui-po

a	e	i	o	u
qua	que	qui	quo	qu
pa	pe	pi	po	pu

Syllables from equipo

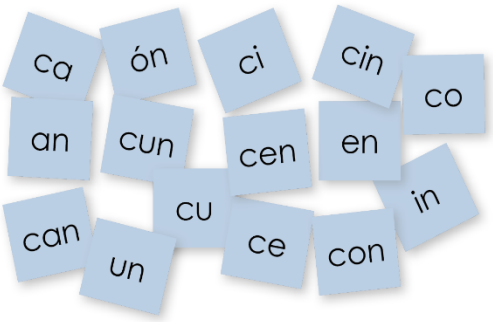


Generative Word - canción

can-ci-ón

can	cen	cin	con	cun
ca	ce	ci	co	cu
an	en	in	ón	un

Syllables from canción



Generative Word - inmigrante

in-mi-gran-te

an	en	in	on	un
ma	me	mi	mo	mu
gran	gren	grin	gron	grun
ta	te	ti	to	tu

Syllables from inmigrante

Generative Word - mochila

mo-chi-la

ma	me	mi	mo	mu
cha	che	chi	cho	chu
la	le	li	lo	lu

Syllables from mochila

Generative Word - bailar

bai-lar

bai	bae	bai	bao	bau
lar	ler	lir	lor	lur

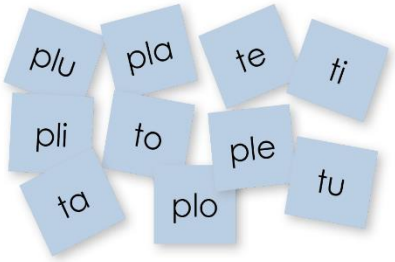
Syllables from bailar

Generative Word - plata

pla-ta

pla	ple	pli	plo	plu
ta	te	ti	to	tu

Syllables from plata

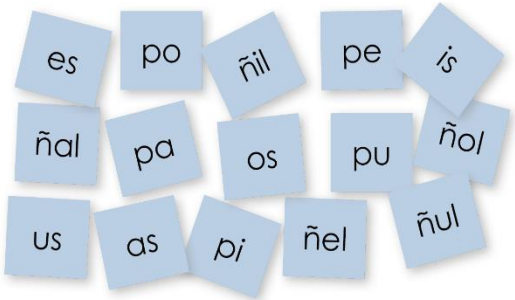


Generative Word - español

es-pa-ñol

as	es	is	os	us
pa	pe	pi	po	pu
ñal	ñel	ñil	ñol	ñul

Syllables from español



Resource H.
Freire-UDL Literacy-*Alfabetización* Fidelity of Implementation Checklist

Example: Lessons for the Word-*Pelota*
M. J. Mendes (2018)

***Key*:** 1.Yes 2. Not Yet 3.Sometimes

	1	2	3
Step 1a—Building Class Community & Dialogue to Facilitate Students' *Conscientización*			
Did I invite and provide students with a safe environment in which they sit in a circle or in groups of four?			
Did I build class community by providing opportunities for students to talk with each other and introduce their name and their own stories?			
Step 1b— Introduction of Generative Picture			
Did I introduce the *generative picture* in multiple ways: object (i.e., soccer ball), poster PPT, video, etc.?			
Conscientización= high-level/critical thinking			
Did I make sure that the dialogue among the students is based on at least two guiding high-level thinking questions from Bloom's Taxonomy related to the generative picture, and one guiding question based on Habits of mind?			
Did I introduce the *generative picture* with the corresponding *word* below the picture, using multiple ways?			
Did I introduce the *generative word pelota* without the picture in multiple ways?			
Did I introduce the *generative word* separated into syllables in multiple ways?			
Did I introduce the Discovery Card for the *generative word* in multiple ways?			
Did I provide guided practice in oral reading of the phonetic families by pointing to each syllable horizontally and vertically in the Generative Word Discovery Card in multiple ways?			
Did I introduce the process of creating/spelling new words with the syllables and letters in the *Generative Word* Discovery Card in multiple ways?			
Did I provide opportunities for guided practice, using some of the activities recommended in the guide?			
Did I provide students with multiple ways of expressing their knowledge of reading and spelling with the syllables and letter sounds that they have learned and used?			

Resource I.
Teacher Steps in the Generative Words Selection for *Alfabetización* in the Classrooms

Teachers who are interested in creating their own materials based on their students' experiences can follow the steps below in selecting generative words and facilitating *conscientización.*

Step 1— Listen and Learn

- Meet with students in focus-group style to listen and learn about their life experiences, their ways of knowing, their hopes and dreams, and their vocabulary universe.
- Use Cooperative Learning Structures that build class community
- Facilitate dialogue among the students
- Take notes about what is important to students in school and outside school, hopes, dreams, struggles, and problems to later identify *generative words*

Step 2—Learn and Plan: Select generative words

- Use the Spanish Phonics Checklist
- Select generative words that are very relevant to students' lives for students' *alfabetización* from the initial master words list in the notebook, which are potentially emotionally charged
- Select the first Generative Word from this initial master list, which must have three direct19 syllables and be emotionally charged (i.e. PE LO TA)
- Map out the first generative word in the phonics checklist
- Select the second generative word, which also should be a three-syllable word with direct syllables
- Continue with the selection of generative words until all phonics are addressed

[19] There are three main types of syllables in Spanish: direct, indirect, and complex.

Resource J. Spanish-English Bilingual Alphabet

LETTER WRITING				LETTER IDENTIFICATION	
Print		Cursive		Letter Name	Letter Sound (ipt)
a A	Airplane-Avion	*a*	*A*	ah	/ah/
b B	Bicycle-Bicicleta	*b*	*B*	be	/b/
c C	Car-Carro	*c*	*C*	se	/s/
ch Ch	Chocolate-chocolate	*ch*	*Ch*	che	/tch/
d D	Dice-Dado	*d*	*D*	de	/d/
e E	Elephant-Elefante	*e*	*E*	eh	/eh/
f F	Family-Familia	*f*	*F*	efe	/f/
g G	Guitar-Guitarra	*g*	*G*	je	/g/ followed by a, o, u /hh/ followed by e, i
h H	Hello-Hola	*h*	*H*	ache	h is silent
i I	Island-Isla	*i*	*I*	ee	/i/
j J	Judge-Juez	*j*	*J*	jota	/x/
k K	Kilogram-Kilo	*k*	*K*	ka	/k/
l L	Lemon-Limón	*l*	*L*	ele	/l/
ll LL	Million-Millón	*ll*	*LL*	Doble ele	/j/
m M	Music-Música	*m*	*M*	eme	/m/
n N	Night-Noche	*n*	*N*	ene	/n/
ñ Ñ		*ñ*	*Ñ*	eñe	/ny/
o O	October-Octubre	*o*	*O*	oh	/o/
p P	Plate-Plato	*p*	*P*	pe	/p/
q Q		*q*	*Q*	cu	/k/
r R	Radio	*r*	*R*	ere	/r/ trilled r
rr	Rodent-roedor	*rr*		erre	/rr/ strongly trilled r
s S	Sun-Sol	*s*	*S*	ese	/s/
t T	Turtle-Tortuga	*t*	*T*	te	/t/
u U	Unicorn-Unicornio	*u*	*U*	u	/u/
v V	Violin	*v*	*V*	be/uve	/b/ There is no Spanish phoneme /v/
w W	Water polo-Waterpolo	*w*	*W*	doble v	/ōo/
x X	Xylophone-Xilófono	*x*	*X*	equis	/s/ xilófono /x/ México /gs/ excavar /ks/ taxi
y Y	Yoyo-Yoyo	*y*	*Y*	i griega	/y/
z z	Zoológico-Zoo	*z*	*Z*	seta	/z/ zero /s/ zapato

Note. Adapted from https://mtss.madison.k12.wi.us/files/mtss/Spanish-Letters-Sound-System.pdf

Spanish Phonics Checklist (Teacher Version)

General phoneme/graphemes	Vowels	a	[agua]
		e	[elefante]
		i	[iglesia]
		o	[oveja, pollo]
		u	[uvas]
	Consonants	b	[banana]
		c	[conejo]
		ch	[chocolate]
		d	[dedo]
		f	[familia]
		g	[gato]
		h	[helado]
		j	[juedo]
		k	[koala]
		l	[leche]
		ll	[lluvia]
		m	[maestro]
		n	[naranja]
		ñ	[niño]
		p	[pelota]
		qu	[queso]
		r /rr/	[rana]
		s	[sol]
		t	[taco]
		v	[vaca]
		w	[Walter]
		x /s/ /x/ /gs/ /ks/	[xilófono] [México] [excavar] [taxi]
		y	[yo]
		z /z/ /s/	[zero] [zapato]
Nasal grapheme/phonemes	Vowel/consonant combinations	am	[ambulancia]
		em	[noviembre]
		im	[chimpancé]
		om	[bombero]
		um	[cumpleaños]
		an	[canción]
		en	[centavo]
		in	[invierno] [patin]
		on	[avión]
		un	[jungla]

WORDS WITH 1, 2, 3, 4 or more SYLLABLES (Direct -> Indirect and -> Complex)	Double Consonants	ll	[cabello]
		rr	[carro]
	Digraphs	ch	[chancla]
	Consonant combinations	br	[libro]
		cr	[crayón]
		dr	[padre]
		fr	[frijoles]
		gr	[grillo]
		pr	[primo]
		tr	[trigo]
		bl	[blusa]
		cl	[bicicleta]
		fl	[flor]
		gl	[regla]
		pl	[plato]
		tl	[atleta]
	Special letter/sound Relationship	que	[queso]
		qui	[quilo]
		gue	[espagueti]
		gui	[guitarra]
		ce	[cereza]
		ci	[ciruela]
		ge	[gemelos]
		gi	[girafa]
	Oral Diphthongs	ai	[baile]
		ay	[raya]
		ei	[reina]
		ey	[rey]
		oy	[hoyo]
		au	[automóvil]
		eu	[Europa]
		ue	[escuela]

Chapter 7: Overview of Study, Reflections, and Recommendations

This study focused on action research and its application to solve a current problem with illiteracy among nonliterate Spanish-speaking SIFE/SLIFE in U.S. schools. It contributes a new theoretical construct, the Freire-UDL Literacy-*Alfabetización* Model, which was operationalized to be used in practice by development of a *Teacher's Guide* to enable bilingual Spanish educators to teach nonliterate Spanish-speaking SIFE to learn to read in 30 to 40 hours.

The creation of this new literacy model combined UDL with Freire's pedagogy of *alfabetización* and *conscientización*. The researcher conducted a comprehensive in-depth study of Paulo Freire's pedagogy of *alfabetización* with *conscientización* along with the review of the literature on UDL and second-language reading. Foundational to the creation of this model was designing the visual representation of the model in a graphic, which was initially validated by an expert in both UDL and Paulo Freire's theory of pedagogy. This visual representation led to the integration of Freire's principles and the UDL principles—generating the Freire-UDL principles—which are the theoretical foundation of this work in practice. Subsequently, the Freire-UDL principles informed development of the Freire-UDL Literacy Model, and its implementation through explicit directions in the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide.* Included in the guide are all the necessary teacher's materials for its implementation in the classroom.

The validation study of the pilot version of the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* was conducted at a public school in an urban school district with 10 Massachusetts SIFE teachers. The participating bilingual Spanish teachers reviewed the *Teacher's Guide*, including the model, and participated in activities that demonstrated the

process of *conscientización* and the steps used in implementation of *alfabetización*. At the end of the workshop the teachers completed a validation questionnaire.

The Spanish bilingual teacher participants' responses indicated that they found the *Freire-UDL Literacy* Alfabetización *Teacher's Guide* to be clear in conveying the concept of integrating Freire's method of *conscientización* and *alfabetización* with the UDL framework. Results also revealed that the directions, as well as the demonstration of the process of *conscientización*, were also clear, as were directions for implementing *alfabetización*. Teacher-respondents agreed that students should use technology in assessing their acquired skills.

Limitations of the FREIRE-UDL *Teacher's Guide* Validation Study

One limitation of this study is the small number of participants who validated the *Freire-UDL Literacy* Alfabetización *Teacher's Guide*. Second, the participants were volunteers from a single state, Massachusetts. Third, the duration of the validation workshop was just 3 hours, which was enough time for the teachers to review and become acquainted with this guide, but not to prepare them to use it. Hence, all the participants asked for a follow-up workshop geared to learning more about the details of implementing the method with more examples.

Two final limitation of this study are, first, that it addresses the needs of nonliterate Spanish-speaking SIFE, not students who, although showing gaps in their formal interrupted education, already know how to read; and second, that the *Teacher's Guide* is tailored to teaching Spanish-speaking SIFE, not students who speak a language other than Spanish.

Recommendations for Research

After completion of this innovative literacy *alfabetización* model and the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide*, the following are recommended steps for future research:

- A larger-scale study that includes bilingual teacher participants throughout the United States. Selection of the participants should be randomized, and the study should include a reliable statistical validation.
- Compilation of lesson plans and activities for teachers to use with each generative word presented in the *Teacher's Guide.* This supplementary material would be practical and beneficial in the implementation of the literacy model.
- Development of a new guide based on the model established in this guide for Spanish bilingual young children who are learning to read.
- Recommendations for Professional Development

After the publishing of the *Teacher's Guide,* school districts should provide Spanish bilingual SIFE/SLIFE teachers with professional development on how to use the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* to implement the new literacy model with nonliterate Spanish-speaking students.

Summary

Chapter 7, the last chapter of this dissertation, reiterated the purpose of the study, which focused on the creation of the Freire-UDL Literacy-*Alfabetización* Model and *Teacher's Guide* to address the current problem of illiteracy among Spanish-speaking SIFE in schools across the United States. This new literacy/*alfabetización* model aims to support middle and high school educators in teaching nonliterate Spanish-speaking SIFE how to read through Spanish instruction, given that at this school level, teachers typically do not have access to professional preparation in teaching students how to read. Additionally, this chapter presented a synopsis of the procedural steps in the creation of the Freire-UDL Theoretical Model, the *Freire-UDL Literacy*-Alfabetización *Teacher's Guide* and the outcomes of its validation study. I ended this

chapter by pointing out some limitations of the *Teacher's Guide* validation study and presented recommendations for future research and practice.

Concluding Reflective Thoughts

My contribution to solving a problem in the field of education consisted of the creation of a new theoretical model of literacy/*alfabetización* and its practical application through the development of a *Teacher's Guide*. This action research study connected theory with practice with the aim of solving the illiteracy challenge among nonliterate Spanish-speaking students (SIFE/SLIFE) in our U.S. schools. The new Freire-UDL Literacy-*Alfabetización* Model was the result of merging two very successful educational approaches, Freire's pedagogy of *alfabetización* (teaching to read and write with *conscientización*) and the UDL Framework that promotes accessibility to learning for all students. Additionally, the *Freire-UDL Literacy-*Alfabetización *Teacher's Guide* was developed as an application of the model, whose purpose is to serve as a road map for Spanish bilingual educators to teach nonliterate Spanish-speaking students how to read in less than 40 hours.

My 35-year career as a middle school teacher provided me with insight and tangible practice in the education field that were the catalyst for this research. Professionally, this study has been an invaluable experience in my academic growth, for it has expanded my horizons from school practice to theory, and forward to new practice that can make a significant difference in teachers' and students' lives. Indeed, in our global and technological world, it is unethical, in my opinion, to keep talking about school failures and achievement gaps without attempting to eradicate them. I believe we can reach all nonliterate Spanish speaking EL students by using the Freire-UDL Literacy-*Alfabetización* model, not only to enable them to read the word, but also to read the world. Furthermore, the new literacy model enables these nonliterate students to learn to

think critically and at high levels, by using questions aligned with Bloom's Taxonomy (1956) that are grounded on the students' own experience and knowledge. *Alfabetización* is an essential bridge to new learnings and to access a better quality of life beyond school in our American democracy.

From a personal perspective, I believe that this work has provided me with the knowledge, the determination, and the insight to make a difference in middle school teachers' practice in their classrooms as they teach literacy, which usually has not been part of their training as middle or high school teachers. I am committed to continuing my work for this important cause, connecting theory and practice for educational equity through *alfabetizació*n for everyone.

This work addresses Spanish-speaking students. However, I intend to facilitate its expansion to other languages and to younger students, in collaboration and ongoing learning with others in the spirit of combining Paulo Freire's dialogical pedagogy with the UDL framework. As an action step, I plan to be involved in additional action research work by publishing the Freire-UDL *Teacher's Guide*, as well as offering professional development that enables teachers to implement with fidelity the new Freire-UDL Literacy/*Alfabetización* Model in Spanish and, eventually, in other languages. In closing, I quote Edward Everett Hale's (1968 p. 717) inspiring words:

> I am only one,
> But still I am one.
> I cannot do everything,
> But still I can do something;
> And because I cannot do everything
> I will not refuse to do the something that I can do.

Appendix A. Studies on Oral Language Proficiency

Table 12

Studies Reviewed by NLP on ELL' Oral language Proficiency and Word-level Skills (2006)

AUTHOR/ YEAR	SAMPLE	RESULTS
Jackson & Lu (1992)	Variety of first-language backgrounds Before beginning Grade 1	Participants scored more than one standard deviation below their native-speaking counterparts on two measures of oral language proficiency, oral cloze and sentence memory. However, they were just as fluent in their oral reading skills.
Durgunoglu, Nagy, & Hancin-Bhatt (1993)	Spanish speakers beginning Grade 1	English oral proficiency was not a significant predictor of English word and pseudoword reading skills. However, Spanish phonological awareness was significant. English oral language proficiency was measured with the Pre-Language assessment Scales (Pre-LAS).
Quiroga, Lemos-Britten, Mostafapour, Abott & Berninger (200	Spanish speakers in Grade 1	English oral language proficiency correlated moderately with word reading and pseudoword decoding in English. However, regression analyses revealed that phonological awareness (a phoneme-deletion task) had a higher correlation with students' word reading and pseudoword reading scores. English oral language proficiency was measured with the (Pre-LAS).
Gottardo (2002)	Spanish speakers	Results showed a small but significant correlation between English oral language proficiency and word reading in English. The author examined the relationship between various language skills (semantic and syntactic processing) phonological awareness, and word reading skills. Correlational analyses revealed that oral proficiency measures of vocabulary and syntactic processing had a significant effect on children's word reading. Furthermore, regression analysis showed that a phoneme deletion task had a strong significant effect on a word-reading test. The author reports that knowledge of English vocabulary maintained a significant effect on reading.
Mutter & Diethelm (2001)	Variety of first-language, ethnic, and educational backgrounds in Grades 1 and 2	The researchers used measures of English phonological awareness, letter knowledge, vocabulary, and single-word reading. The results showed that vocabulary knowledge measured at the age of 5 did not predict word reading skills for the children a year later at the age of 6. However, measures of rhyming and phonemic segmentation administered to children at the age of 5 significantly predicted word-reading skills a year later, as did letter knowledge. The authors concluded that according to multi-regression analyses conducted with data from the first-grade, English letter knowledge followed by phonological segmentation in English had the most significant effect on word reading ability. In addition, English vocabulary was also significant.

AUTHOR/ YEAR	SAMPLE	RESULTS
Geva, Yaghoub-Zadeh, & Schuster (2000)	Variety of first-language backgrounds Grades 1 and 2	The results revealed a weak relationship between English oral language proficiency and word reading. There was a relatively strong association between phonological processing skills in English and second-language word reading. According to the authors a regression analyses showed that English oral language proficiency measured with a vocabulary test, Peabody Picture Vocabulary Test-Revised (PPVT-R) at the Grade 1 and beginning of Grade 2 did not predict English word recognition and pseudoword decoding at the end of Grade 2. On the other hand, phonemic awareness and rapid automatized naming of letters assessed in English at the end of Grade 1 and beginning of Grade 2 were significant predictors of word and pseudoword reading at the end of Grade 2.
Gottardo, Yan, Siegel, and Wade-Woolley (2001)	Chinese students in grades 1 to 8	The authors concluded that the correlation between English oral language proficiency measured by a grammatical sensitivity cloze test and English word and pseudoword reading was not significant. However, the correlations between an English phoneme-deletion and word reading tasks were all positive and significant.
Arab-Moghaddam & Sénéchal (2001)	Farsi speakers in Grades 2 and 3	Small but significant correlation between oral vocabulary knowledge in English and English word reading. The students' English vocabulary scores correlated significantly with their English word reading scores. However, there was a moderate correlation between vocabulary knowledge in English and word reading skills. On the other hand, there was a high correlation between phonological processing skills and English word reading. Regression analysis revealed a higher correlation between phonological processing skills in English and word recognition in English even when vocabulary knowledge was taken into account.
Da Fontoura & Siegel (1995)	Portuguese speakers in Grades 4 to 6	The correlation between the students' oral language scores in English and their word reading scores in English was positive. There was a high correlation between pseudoword decoding scores in English and Portuguese and their word reading scores. Students who had good command of phoneme-grapheme correspondence rules in English, measured by the pseudoword decoding task, also had good word reading skills in English.
Abu-Rabia (1997)	Hebrew speakers in Grade 10 studying English as a foreign language	There was a significant correlation between English oral language proficiency, measured by a grammatical sensitivity cloze task, and word reading skills in English.

Mendes (2015) Adapted from August & Shanahan (2006)

Table 13

Studies Reviewed by NLP on ELLs' Oral Language Proficiency and Reading Comprehension (2006)

AUTHOR/YEAR	**FIRST LANGUAGE**	**RESULTS**
Dufva & Voeten (19990	Finnish-speaking students in Grades 1 to 3	The authors reported a high correlation between reading comprehension skills and oral vocabulary among native Finnish-speaking third-grade students learning English as a foreign language.
Beech & Keys (1997)	Asian students at the age of 7 and 8	The authors reported that after examining the reading comprehension, oral vocabulary, and decoding skills of 7- and 8-year-old bilingual Asian children living in the United Kingdom, they scored significantly lower on tests of English oral vocabulary and on a cloze-type test of reading comprehension. On the other hand the differences on word reading between these two groups were not significant. This finding confirms indirect evidence that reading comprehension is related to oral language proficiency.
Carlisle, Beeman, Davis, & Spharim (1999)	Elementary school students	The authors reported that students' ability to provide formal and informal definitions of nouns in English and Spanish shows vocabulary knowledge in English, which had a positive effect in reading comprehension in English.
Peregoy & Boyle (1991)	Spanish speakers in Grade 3—six students	The authors reported examined the relationship between different English oral language skills and reading comprehension. Using a simulated science lesson about seashells, the authors evaluated the children's oral language proficiency through grammatical complexity, well-formedness, informativeness, and listening comprehension. Sudents, whose reading comprehension skills were better developed, had significantly higher scores on all oral measures.
Peregoy (1989)	Spanish speakers in Grade 5—six students attending a Spanish-English bilingual program	The author measured oral production by asking students to tell a story about a four-frame picture sequence. She scored this task with respect to fluency (number of words produced), total number of propositions produced, grammatical complexity and well- formedness. As a reading comprehension assessment, she used passages taken from the Stanford Diagnostic Reading Test. The author found a relationship between language proficiency in English and reading comprehension in English. Students whose scores were high on oral proficiency indexes also had better scores in reading comprehension.
Royer & Carlo (1991)	Spanish speakers in Grades 5 to 6	The researchers examined the relationship between oral language proficiency measured by a listening comprehension task and reading comprehension. They tracked students' performance from Grade 5 to Grade 6 and evaluated listening comprehension (oral language proficiency) by using Sentence Verification Technique. The authors concluded that listening comprehension skills in English assessed in Grade 5 were the best predictors of English reading comprehension in Grade 6.

AUTHOR/YEAR	FIRST LANGUAGE	RESULTS
Jiménez, García, & Pearson (1996)	Spanish speakers in Grades 6 and 7	The researchers examined the impact of Spanish ELLs' understanding of cognates on their reading comprehension. They found that students who had more knowledge about the relationships between English and Spanish cognates were able to use more successful strategies to infer meanings and, therefore, comprehended texts better.
Carlisle, Beeman, and Shah (1996)	Spanish speakers ranging from 14 to 20 years old	The authors examined the relationship between English oral language proficiency and English reading comprehension. They measured oral language proficiency through tests of listening comprehension, grammatical knowledge, and vocabulary. In addition, students were also required to provide definitions for high-frequency words. Performance on English listening comprehension and quality of vocabulary definitions explained 50% of the variance in English reading comprehension scores.
Goldstein (1993)	Spanish speakers in Grades 7 to 9	High correlation between oral storytelling skills and reading comprehension in English. Students' ability to present and discuss story elements as opposed to just describe characters and their actions explained 50% of the variance in English reading comprehension scores.
Lee & Schallert (1997)	Korean speakers in Grades 9 and 10 learning English as a second language	Two aspects of English oral language proficiency, vocabulary knowledge and grammaticality judgments and first-language reading comprehension correlated with English reading comprehension. Correlations between first- and second-language rose with higher scores on oral proficiency in second-language.

Mendes (2015) Adapted from August & Shanahan (2006)

Table 14

Studies on Oral Reading Proficiency Among ELLs from 2006 – 2015

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
Saunders, Foorman, and Carlson (2006)	1,237 K ELLs—Spanish-speaking	To examine the effects of a separate block of time for oral language development instruction	To examine what constituted the language and content of instruction during the separate ELD block and also during the reading/language arts block in immersion and bilingual programs. The authors measured student data by administering oral language and literacy measures.	K ELLs in classrooms with an ELD block had higher English oral language composite scores, higher word identification scores, and a tendency toward higher letter-sound scores. Thus, the student achievement data provide some support for the existence of a separate ELD block.
Tong, Lara-Alecio, Irby, Mathes, and Kwok (2008)	534 K-1 ELLs—Spanish speaking in transitional bilingual education (TBE) and structured English Immersion (SEI) programs	To investigate the effect of a 2-year (kindergarten and first-grade) oral English intervention with two program types, TBE and SEI in order to accelerate oral English development	The intervention was three-tier. TBE-Enhanced/ExperimentalTier I consisted of regular academic classes instruction in Spanish in K-1 Tier II consisted of ESL intervention with three strands: (a) 40 minutes in K-1 of daily tutorials in the Santillana Intensive English, a research-based curriculum in teaching Spanish-speakers content in English; (b) storytelling and retelling with higher order thinking skills for English-language and English-literacy acquisition through culturally relevant, authentic literature 25 minutes in K and 40 minutes Grade1; and (c) a teacher-conducted Academic Oral Language (AOL) and AOL in science Tier III implemented with lowest performing students consisted of	Although all students improved in their oral language development throughout the two years, independently of program type, groups with enhanced practices significantly outperformed the control groups. SEI-T classrooms had higher L2 oral language skills at the time of school entry. However, SEI students receiving enhanced practices made large gains in oral language and, by the end of first-grade, they had attained equivalency with students in the SEI-T group. On the other hand, students in both bilingual groups showed the same levels of oral English skills at the time of school entry. At the end of the two years of intervention, the TBE group receiving enhanced practices outperformed their peers receiving typical instruction in language acquisition. The gap between the intervention and control TBE groups had increased by the end of first-grade and, furthermore, the teachers' frequent use of academic English language within an enhanced structured

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
			communication games developed by the research team 10 minutes for K and 20 minutes for Grade 1. During the second semester of Grade 1, communication games were substituted for early interventions in reading (EIR) Level 1. SEI—Enhanced/Experimental Instruction was structured with an identical tier intervention model in kindergarten and first grade with a separate ESL block (75 minutes in K and 90 minutes in Grade 1). The only exception was that in SEI-E, English was the language of instruction used in Tier I.	curriculum in TBE-E classrooms increased oral English proficiency
Kieffer (2008)	17,205 K-5 ELL and EP students from the ECLS-K study who had one or more reading score.	To measure students' English language proficiency before formal school in order to examine the role of initial English language proficiency on the growth of English reading later in school	Secondary analysis of data collected as a nationally representative sample of U.S. elementary school children, the Early Childhood Longitudinal Study-Kindergarten Cohort (ECLS-K). Kieffer used the ECLS-K dataset to examine the growth in English reading of ELLs and EPs from kindergarten to Grade 5. He compared the two groups of ELLs, those who enter kindergarten with limited English oral language proficiency and those who enter kindergarten proficient in oral English, to EPs.	Results showed ample differences between the English reading level of ELLs and EPs when ELLs were controlled for initial language proficiency. ELLs who were proficient in oral language when they entered kindergarten were successful in developing reading skills, whereas ELLs who entered kindergarten with limited proficiency in reading skills struggled throughout elementary school. Furthermore, ELLs who enter school orally proficient in English obtain equivalent levels of English reading achievement as their EP counterparts. Conversely, ELLs who enter school with limited English proficiency presented large deficiencies in English reading achievement. Even those students who gained oral English proficiency rapidly throughout kindergarten continued to lag behind their EP peers in third and fifth grade.
Hinrichs (2008)	5 first-grade ELLs	To investigate instructional	The intervention focused on an instructional package that targeted	Explicit instruction of each set of words, the opportunities to experience the words in different

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
		strategies that promote vocabulary and listening comprehension growth in order to assist ELLs who are placed in monolingual classrooms with little or no support in their L1 and, in addition, face the challenge of the number of years it takes to acquire academic language.	explicit instruction in two areas: (a) Tier Two vocabulary words, regarded as high-frequency words and found in a variety of written tests and spoken language; (b) explicit instruction in the five elements of retelling: setting, characters, details and events, sequence, and ending. She read aloud fictional books and initiated conversations before, during, and after the read-aloud. The treatment consisted of three phases of instruction. Each of the three phases lasted six weeks and students learned 10 Tier Two words in each phase.	contexts, and practicing them in conversations improved all students' vocabulary assessment scores. Regarding listening comprehension, all of the students revealed a positive growth on their ability to retell a story that they listened to using the five elements: setting, characters, detail and events, sequence, and ending.

Table 15

Phonemic Awareness Assessment Dimensions

PA CATEGORIES	**DESCRIPTION**	**EXAMPLES**
Sound Comparison Assessments	Children compare sounds in different words. This task is used with kindergarten because of its basic level.	Which word begins with the same sound as *dog*: cat, duck, or bat? Give examples of words that have the same beginning sound as *fat*. Give examples of words that end with the same ending sound as *fat*.
Phoneme Segmentation assessments	Children count, pronounce, delete, add, or reverse individual phonemes in words.	Say the sounds of *dog* one at a time. Say the word *card* without saying the /d/ sound. Put one marker for each sound you hear in the word *cat*.
Phoneme Blending Assessment	The tester pronounces isolated phonemes for the child to blend them together and form a word. In order to make this task easier, the tester may ask the child to choose from two or three pictures the word that represents the series of phonemes.	What word do these sounds make // - /a/ - /t/?

Table 16

Studies Using Phonemic Awareness Assessments Among ELLs with Literacy Difficulties

AUTHOR/ YEAR	**SAMPLE**	**PURPOSE PHONEMIC ASSESSMENT PROCEDURES**	**RESULTS**
Chiappe, Siegel, & Wade-Woolley (2002)	131 Grade 1 ELLs from various linguistic backgrounds considered disabled readers 727 Grade 1 native speakers of English who were considered disabled readers	Participants were assessed on phonological awareness tasks, such as phoneme recognition, phoneme deletion, and substitution. Scores of disabled-reader ELLs were compared with those of average-reader ELLs in the same classrooms. Scores were also compared with those of diabled-reader native English-speaking participants.	ELLs considered disabled readers had notably lower scores on the phoneme tasks in comparison with their classroom ELL peers who were considered average readers. However, reading disabled ELLs had similar scores to native English-speaking students who were designated as reading disabled.
Chiappe & Siegel (1999)	38 Grade 1 ELLs from Punjabi-speaking backgrounds who were classified as disabled readers 51 Grade 1 native English speakers who were considered disabled readers	All participants were assessed on phonological awareness tasks, such as phoneme recognition, phoneme deletion, and substitution. Scores of ELL participants considered disabled readers were compared with ELLs designated as average readers. Scores of ELLs with reading disabilities also compared to those of native English-speaking students classified as disabled readers.	ELLs designated as disabled readers had lower scores on phoneme tasks in comparison with their ELL peers who were classified as average readers. These ELLs' scores were similar to the native English-speakers who were also presenting reading difficulties.
Wade-Wooley & Siegel (1997)	40 Grade 2 ELLs who were classified as reading disabled 33 Grade 2 native English speakers classified as reading disabled	All participants had to imitate pseudowords and were assessed on a phoneme deletion test. Scores of native English-speaking students with reading disabilities were compared with scores of ELLs classified as average readers. In addition, scores of ELLs classified as disabled readers were compared with native English speakers designated reading disabled.	Native English-speakers with reading difficulties had notably lower scores on the phoneme test than ELLs who were average readers. ELLs classified as reading disabled showed similar difficulties as the native English-speakers also designated as reading disabled.

Mendes (2015) adapted from August & Shanahan (2006)

Table 17

Studies on Phonemic Awareness Among ELLs from 2006 – 2015

AUTHOR/ YEAR	**SAMPLE**	**PURPOSE**	**TREATMENT**	**RESULTS**
Linklater (2007)	401 K (112 ELLs & 289 EPs) (language background not known)	To investigate early literacy skills between ELLs & EPs and to evaluate if early Phonemic Awareness (PA) measures predict later reading performance	Students were assessed in fall, winter, and spring on initial sound fluency (ISF), phoneme segmentation fluency (PSF), and a combined phoneme segmentation task (C-PST); and on *nonsense word fluency* (NWF), but only a subset of the sample took the Woodcock Reading Master Test Short Scale (WRMT-R/NU) at the end of kindergarten.	No significant difference between ELLs and EPs in PA. Phonemic measures given in the beginning of kindergarten can predict word reading and reading comprehension for ELL students.
Yang (2009)	67 Grade 3 ELLs Taiwanese proficiencies were at the pre-beginning level of English Treatment group—34 & Control group—33	To explore whether instruction in PA through the use of rhyme picture books improved PA and reading achievement for ELLs	The treatment group had two 40-minute sessions twice a week for 8 weeks. Treatment was 5 steps: 1) teacher reading rhyme picture books 2) finding rhyming pairs in picture books, 3) counting phonemes, modeling how to delete, organize, and manipulate phonemic structure, 4) students putting words from word cards in the correct order in sentences, and 5) students reading the rhyme picture book that teacher had read in the beginning of class in groups. At the end of class, students read in unison the picture book to their teacher	The treatment group improved their English PA when compared to the students in the control group. The results also confirm that PA is positively correlated with reading performance.
Walter (2010)	20 Kindergarten Spanish-speaking ELLs	To investigate if measures of PA predict end of kindergarten early	Experimental group received a twenty-minute supplemental small group instruction on PA four days per week for ten weeks	Students made significant progress in PA, moving from high risk to above average. Measures of phonemic awareness, such as PSF

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
		reading skills for ELLs and examine if an intervention focusing on PA has an effect on ELLs' early reading skills.	DIBELS scores were obtained in winter and spring in phoneme segmentation fluency (PSF), nonsense word fluency (NWF), letter naming fluency (LNF), and word use fluency (WUF).	and NWF are predictive of early reading skills for kindergarten ELLs.
Brice and Brice (2010)	80 K EPs and Spanish-speaking ELLs Students were placed into 4 groups: high-reading level English monolinguals, low-reading-level English monolinguals, high-reading-level English-Spanish bilinguals, and low-reading-level English-Spanish bilinguals. Each group consisted of 20 students.	To examine if there was a difference in a) PA and phonics skills based on high versus low reading ability of EP and bilingual students and b) in the identification of voiced and voiceless phonemes as well as voiced and voiceless graphemes for EP versus bilingual language students.	Kindergarten scores were obtained with the DIBELS. The first benchmark conducted in the fall included the ISF and the LNF and the second benchmark conducted in the winter included ISF, LNF, PSF, and NWF. Students were assessed with identification tasks, which required them to listen to stimuli words and identify initial and final sounds by saying them and pointing to the corresponding letters on a Grapheme Chart.	Participants' reading level was a major factor in their phoneme and grapheme identification ability. High readers performed better than low readers. Both monolingual and bilingual students identified more often words with voiced phonemes than words with voiceless phonemes. Bilingual students performed significantly lower than EPs in identifying voiced and voiceless phonemes.

Table 18
Studies Using Phonics Among ELLs Reviewed by the NLP (2006

AUTHOR / YEAR	**SAMPLE**	**PURPOSE**	**TREATMENT**	**RESULTS**
Stuart (1999)	112 four- and five-year-olds 96 of the participants were ELLs—mostly speakers of Sylheti	To compare Jolly Phonics, a phonics intervention with Big Books approach	Group 1- Jolly Phonics Group 2- Big Books One class from each three schools implemented the *Big Books* program while three classes from two other schools implemented the *Jolly Phonics* program. Students received 1 hour of daily instruction with one of the programs for 12 weeks. The researcher used pre- and posttests to measure spoken and written language as well as phonological awareness and alphabet knowledge.	*Jolly Phonics* had notably positive effects on acquisition of phonics and students' ability to apply these in reading and writing in comparison with the *Big Books* Program. A posttest conducted 1 year later showed that the Jolly Phonics intervention group was still performing significantly better than the Big Books group.
Larson (1996)	33 Grade 1 ELLs—Spanish speakers	To examine the effect of different instructional approaches on the reading and spelling of English consonant-vowel-consonant (CVC) words, such as *bat* or *pin*.	Group A students received instruction in segmentation of oral Spanish CVC words. After meeting 80% or 15-trial criterion, students received oral segmentation of English CVC words to the same 80% criterion. Group B students received instruction on segmentation only in English CVC words to the same criterion of 80%. Group C, no-treatment control Both treatment groups, Spanish-English and English-only had instruction on segmentation of letters in English words. At this time both groups learned individually letter-sound	The two trained groups scored significantly higher than the untrained group on tests of segmenting, decoding, and spelling in English but did not show significant differences from one another. Interestingly, the researcher found that "training to criterion in Spanish followed by training to criterion in English was no better than training to criterion in English alone" (p. 425).

AUTHOR / YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
			relationships for some consonants and all short vowels for 5 weeks.	
Gunn, Biglan, Smolkowski, & Ary (2000)	184 K-3 students 62% were Spanish speakers	To examine the effects of supplemental code-emphasis instruction for students who were reading below average	Students selected randomly to treatment group that received supplemental instruction or control group that did not. *Reading Mastery* (Engelmann & Bruner, 1988) was used with students whose scores showed that they were beginning readers. *Corrective Reading* (Engelmann, Carnine, & Johnson, 1999) was used with third-grade students who were nonreaders or were reading below grade level. The supplemental instruction was provided by trained assistants to groups of two to three students. Besides classroom reading instruction, students received supplemental instruction for 30 minutes daily.Both programs focused on phonological decoding that stressed phoneme blending but not segmenting.	After 4 to 5 months of treatment, students showed significantly higher scores on word-attack skills on the Woodcock-Johnson test. There were no differences in oral reading fluency. After 15 months of instruction, students obtained significant gains on word attack, reading vocabulary, passage comprehension, and approached significance on oral reading fluency. 19 Hispanic students who did not speak English at the beginning of the treatment benefitted as much from the intervention as the other Hispanic students.
Gunn, Smolkowski, Biglan, & Black (2002) Follow-up.	Same Participants		Same Intervention	The results showed that 1 year later English-language learners who did not speak English at the start of the intervention showed as much progress as the Hispanic English-speaking students.
Kramer, Schell, & Rubison (1983)	15 Grades 1, 2, and 3 Spanish-speaking ELLs	To examine the effect of teaching English auditory discrimination (a component of	8 of the 15 students were assigned to the control group. The treatment consisted of teaching Spanish speakers to discriminate difficult English sounds, such as (*cheat*, *sheet*). Students learned four sound	The results showed that the students in the experimental group showed improvement on their ability to discriminate the sounds contrarily to the control group. However, this study cannot be generalized because of the small number of participants as well as limited set of sounds.

AUTHOR / YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
		phonemic awareness)	pairs during a 4 week-period without a specific amount of time.	

Mendes (2015) adapted from August & Shanahan (2006)

Table 19
Studies on Phonics Among ELLs from 2006 – 2015

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
McCain (2008)	199 G 3 students: 89 EPs, 79 ELLs, 13 EPs with disabilities (18 ELLs with disabilities ()	To investigate if ELLs who participated in intensive, explicit structured phonics-based programming (IESPP) became proficient readers	Intensive, explicit, structured phonics-based Program (IESPP) daily for 1 year during a 2 ½-hour literacy block with 3 kinds of fluency assessments 3x a year: Oral Reading Fluency Retell Fluency and Word Use Fluency.	All groups showed progress in oral reading fluency. However, third-graders with disabilities, whether EP or ELL continued showing a significant difference in relation to their peers without disabilities in oral fluency after participating for a year in an IESPP
Vadasy and Sanders (2010)	148 K: 84 ELLs, 38 treated; 64 EPs, 29 treat	To investigate the effectiveness of supplemental phonics instruction for low-skilled ELL and English proficient students in kindergarten.	ELLs and EP students were randomly assigned to two groups. The treatment group received individual code-oriented instruction and the control group received classroom instruction only.	The treatment group significantly outperformed controls at posttest in alphabetics, word reading, spelling, passage reading fluency, and comprehension. However, the ELLs had lower performance at posttest than EPs and showed a significantly lower response to treatment on word reading than their EP peers.
Vadasy and Sanders (2012)	Same Sample	Two-year follow-up study on literacy instruction for ELLs and EPs. Did time on word-study, (phonics, spelling; word meaning, vocabulary, comprehension) influence students' outcomes?	The authors followed the same students for two years, those who had received the kindergarten phonics-based treatment and those in the no-treatment control group.	Supplemental phonics intervention in English in kindergarten continued to show benefits for ELLs and EPs two years after the treatment. For ELL students the advantages were greater on word reading and spelling, whereas for EP students the advantages were significantly greater on word level, fluency, and comprehension.
Miller (2013)	29 ELLs: 21 in Grade 3, and 8 in Grade 5	To examine the effectiveness of the Sing, Spell, Read, and Write (SSRW) phonics curriculum in the reading achievement of ELLs in tier-two of the RTI process	Explicit, systematic phonics program as a tier-two RTI intervention for 30 minutes during 8 months. The SSRW phonics curriculum included explicit and systematic instructional methods to teach students letter names, letter sounds, short and long vowels, consonant blends, and vowel combinations. Students mastered	SSRW phonics curriculum with ELLs positively affected reading achievement. Participating teachersreported an increase of students' confidence and motivation to read after the implementation of the program. Teachers also pointed out that the improvement in students' decoding skills helped their fluency, comprehension in reading, and spelling in writing.

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
			phonics skills via daily repetition of literacy songs.	

Table 20

Studies on Reading Fluency Instruction Among ELLs Reviewed by the NLP (2006)

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
Denton (2000)	93 Grades 2 to 5 Spanish-speaking ELLs	To examine two tutoring interventions, one that taught phonics and one that taught fluency directly	Two tutoring interventions: one group received phonics, the other received fluency instruction. Students' scores on the Woodcock Reading Mastery Tests—Revised (WRMT-R) determined the treatment group to which they were assigned. Students whose scores were lower than Grade 1 were assigned to the phonics intervention. Students whose scores were at Grade level 1 or above were assigned to the fluency treatment. The researcher used a commercial program, *Read Well* with the phonics intervention, and *Read Naturally* with the fluency intervention. There were also two control groups to match the two intervention groups.	At the end of the interventions, students were assessed with the WRMT-R[20] and curriculum-based reading selections. Students in the phonics-intervention group made significant progress in comparison with the matching control group in word reading, consistent with prior studies. Students in the fluency-intervention group made more gains than the matching control group in oral reading accuracy and fluency. This treatment group did not show gains in relation to controls in word identification, word analysis, and comprehension. The researcher could not reach clear conclusions based on these findings due to the differences in the amounts of instructional time.
De La Colina, Parkers, Hasbrouck, &	74 Grades 1 and 2 Spanish-	To examine the effects of Spanish fluency training using a translated version	Students participated in a study of Spanish fluency intervention. The researchers used a translated version of *Read Naturally* in their treatments.	Most of the students regardless of the amount of time spent receiving the intervention showed improvement in oral reading fluency. Interestingly, students who were more engaged in the

[20] Students were assigned to the treatments based on their scores on the Woodcock Reading Mastery Tests—Revised (WRMT—R).

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
Lara-Alecio (2001)	speaking ELLs The participants' level of English as a second language (ESL) was beginner or non-English speaker	of *Read Naturally* (Ihnot, 1997)	In order to qualify to be a participant in this study, students had to be able to read correctly 30 to 60 words per minute of a Spanish story or be able to read 50 Spanish sight words. The intervention took place three times a week for 45 minutes. It was used with three groups. One group began the intervention immediately and continued for 12 weeks. The second group began 3 weeks later and continued to the end of the study. The third group began 5 weeks later than the first group and also continued to the end of the study.	instructional materials showed significant gains. The authors report that while in Grade 1, high-engaged students improved by 32 words correct per minute (WCPM), low-engaged students improved by about 10 WCPM. In Grade 2 high- engaged students improved by about 37 WCPM whereas low-engaged students only gained 17 WCPM. The findings of this study are limited to Spanish reading because the researchers did not test the impact of the instruction on English reading.

Mendes (2015) adapted from August & Shanahan (2006)

Table 21

Studies on Oral Reading Fluency Among ELLs from 2006 – 2015

AUTHOR/YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
Allen-DeBoer (2008)	3 ELLs in Grade 4, 5	To investigate the effect of a systematic phonics-based curriculum on the oral reading fluency of three Latino elementary ELL students at risk for reading difficulties.	A single-case multiple baseline design to investigate the effects of a modified Corrective Reading program on the oral reading fluency of three students. As part of the modifications to the *Corrective Reading* program, there were Spanish translations of various vocabulary words, Spanish cognates, visual aids, review of vocabulary for meaning and accuracy, review of vocabulary errors for meaning, and the use of gestures to promote oral reading fluency. The intervention consisted of 40 minute-sessions of a 2- ½ hour after-school program, three times per week for 10 weeks.	English scores increased an average of 1.5 grade level equivalent scores and in comprehension increased an average of 1.6 grade level equivalent scores. Spanish results, showed an increase of 1.9 grade level equivalent scores in reading and .7 of grade level equivalent score in comprehension. The students' increase scores in oral reading fluency may have been the result of a focus on decoding and phonemic awareness through the systematic phonics based-instruction provided in the intervention.
Chirchick (2009)	50 ELLs in Grades 4, 5 24 students in Control Group: 14 in Grade 4, 10 in Grade 5 26 students in Treatment Group: 14 in Grade 4, 12 in Grade 5	To investigate if a supplemental reading program that included content-based English-Language Development (ELD) and Specially Designed Academic Instruction in English (SDAIE) pedagogies would increase students' reading	The intervention took place three times a week for eight weeks. To develop students' fluency, each intervention session included five research-based learning activities: read aloud, phonemic awareness, syllabification, fluency, and academic vocabulary. To increase students' motivation, teachers used cooperative learning strategies, provided opportunities to discuss lesson material, and used rewards throughout the reading intervention sessions.	Regardless of grade or treatment condition, students had higher reading fluency scores on the posttest than the pretest. More opportunities for practice and repeated oral reading during the after-school program had a positive impact on students' oral reading fluency. Students shared in their journals that reading got easier and practice increased their fluencies.

AUTHOR/YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
		fluency and motivation.		
Wang (2010)	58 Grade 5 Mandarin-speaking ELLs The results after the intervention were compared to available archive scores. The participants in the archive group consisted of 47 students in Grade 5 in the school year 2008-2009	To investigate the effectiveness of repeated reading procedures on fluency and comprehension.	The intervention took place fifteen minutes per day, five days per week, for 11 weeks during the school's original English reading periods. The participants read one lesson during each intervention, for a total of 55 lessons from the QuickReads Level C books. Each lesson was read three times. The first time the student read alone, the second time the student read with the teacher, and the third time the student read again. Then the number of words read in a minute was recorded in a log.	The results of the repeated reading treatment of 55 lessons from the QuikReads Level C within subject group showed a statistically significant increase of 31.41% words read per minute in fluency after the treatment. There was a 5.41% increase in scores for comprehension from February to May in comparison to a 2.67% increase from November to February for the same students without having the treatment.

Mendes (2015) Adapted from August & Shanahan (2006)

Table 22

Studies on Vocabulary Instruction Among ELLs Reviewed by the NLP (2006)

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
Vaughn-Shavuo, (1990)	30 Grade 1 Spanish-speaking ELLs	To study strategies for presenting words to Spanish-speaking first-graders	Students randomly assigned to treatment and control groups. Students received instruction on 31 words for 3 weeks, 30 minutes per day. Treatment group learned in meaningful narratives, dictated sentences, and looked at pictures that portrayed the meanings; control group learned via sentence contexts.	The treatment group, that received instruction on the use of words in different contexts and had more repetition, learned 21 words vs. the control group that learned 9 words. This study is very limited given the short duration of time it took place.
Pérez (1981)	75 Grade 3 Spanish-speaking ELLs	To examine the effect of vocabulary instruction to Mexican American third graders	Treatment group received oral instruction on word meanings with focus on compound meanings, synonyms, antonyms, and multiple-meanings for 3 months, 20 minutes per day. Control group participated in their regular school program.	The students who received the treatment performed better on the Prescriptive Reading Inventory in their ability to read the text orally and answer questions about the text. The students who worked on word meanings improved their reading comprehension.
Carlo et al., (2004)	94 Grade 5 Spanish-speaking ELLs in the treatment group and 48 in the control group	To examine the effects of vocabulary instruction to fifth-grade ELLs	Treatment group 94 ELLs; control group 48. Students tested in vocabulary and comprehension pre- and post-treatment. Treatment group had vocabulary instruction (10-12 words/week) 30 to 40 minutes for 15 weeks, 4 days/week plus 1 day for review. Vocabulary instruction was thematic. Homework assignments, weekly tests. Words were presented in Spanish prior to English. Lessons consisted of interpretation of word meanings in context, word association tasks, synonyms, antonyms, and semantic features.	According to the Peabody Picture Vocabulary Test (PPVT), there were no treatment gains. However, ELLs showed improvement on tests of word meanings, in making sentences with multiple meaning words to express different meanings, and in completing cloze tests. Students also showed improvement on cloze tests that measured comprehension although the positive effect of the treatment was higher on word learning.

Mendes (2015) Adapted from August & Shanahan (2006)

Table 23

Studies on Vocabulary Among ELLs from 2006 – 2015

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
Biemiller and Boote (2006) (Study 1)	112 ELLs: 43 K, 37 Grade 1, and 32 Grade 2	To examine the effect of pretesting, reading books two or four times, and word explanations on the acquisition of word meanings	Used a vocabulary test, which was designed with a pretest and posttest to assess the effect of word meaning instruction during storybook reading in comparison with repeated readings without instruction. With each grade, 24 word meanings were tested, 12 of the words were instructed and 12 were not to investigate the effect of reading with explanations versus reading without meaning explanations.	12% gain in word meanings after repeated readings. Additional 10% gain with word explanations. Reading books two or four times had different effects in different grades. K students showed the most benefits with four readings, Grade 2 four readings versus two readings showed no additional benefits. Pretesting had no effect on the acquisition of word meanings at the posttest.
Biemiller and Boote (2006) (Study 2)	107 ELLs: 28 K students, 37 in Grade 1, and 42 in Grade 2	To examine a more intensive word instruction, retention of word meanings, and the transfer of learned word meanings to new contexts.	Students were exposed to many more word meanings than in Study 1 and the addition of a final review with new context sentences. Words that 85% of students knew at pretest were eliminated. Administered posttest after 2 weeks and a delayed posttest after 6 weeks to examine the retention of word meanings.	The results showed a significant gain. A 35% increase between pretest and immediate posttest Children in Grade 1 made larger gains (42%) than children in kindergarten (32%) or Grade 2 (30%). There were gains of 6% between posttest and delayed posttest, which shows that children continued acquiring vocabulary for 4 weeks without instruction.
Silverman (2007)	72 K students: 44 EPs and 28 ELLs	To investigate if a research-based vocabulary intervention across classrooms would help ELLs and EPs learn words and grow vocabulary at similar rates.	The curriculum was written to go along 12 books, and one book was read each week. The intervention took place 3 days per week for about 30 to 45 minutes each day. The author chose 5 to 10 words from a book read each week.	Both EPs and ELLs showed significant gains on knowledge of target words from pretest to posttest on the Researcher Vocabulary Assessment (RVA). Both groups did not present significant differences in gains or losses in knowledge of target words from posttest to follow-up. Although EPs and ELLs showed significant differences at pretest, there were no significant differences between the two groups at posttest and

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
				follow-up, indicating that ELLs were catching up to their EP peers. On the picture vocabulary subtest, ELLs' knowledge of target words grew faster than EPs' knowledge. Both groups made significant gains in knowledge of target words from pretest to posttest. Although there was a significant difference between ELLs and EPs at pretest. There were no differences in rates of growth between ELLs and EPs from pretest to posttest and posttest to follow-up. Both groups improved on oral language vocabulary at similar rates.
Montgomery (2007)	14,724 students in Grade 5; 46.5% were ELLs of which 44% were Spanish speakers.	To analyze the archived data of the participants.	The assessment measures included specific subtests from the Stanford Achievement Test, Tenth Edition (SAT 10)—Reading Vocabulary, Reading Comprehension, and Science subtests of the SAT10.	The results showed a statistically significant relationship between vocabulary knowledge and reading comprehension achievement of fifth-grade students. ELL status had a negative effect on reading achievement. There was a decrease of 3.969 points in reading comprehension for students who were classified as ELLs. There was a statistically significant relationship between vocabulary knowledge and the science achievement of fifth grade students. Reading vocabulary and reading comprehension had statistically significant effects on science achievement.
Crevecoeur (2008)	122 K; treatment group—31 ELLs and 49 EPs control group—17 ELLs and 25 EPs.	To reexamine the data from a three-year research program (Project VITAL: Vocabulary Instruction Targeting At-risk Learners) in order to investigate: 1) how ELLs and EPs responded to a direct vocabulary intervention, and 2) if	54 target words during 36 half-hour storybook readings and activities throughout the 18-week intervention. Used systematic instruction on words selected in the vocabulary interaction.	ELLs and EPs benefited from the intervention although the outcome measures indicated that EPs showed a greater benefit from the intervention than ELLs.

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
		the intervention effects favored ELLs or EPs, or if the ELLs results were comparable to the EPs.		
Dietrich (2008)	24 Grade 1 students: control class—11 students, 5 ELLs and 6 EPs treatment class—6 ELLs and 7 EPS	To investigate the effect of an explicit, systematic vocabulary intervention using Tier 2 words[21] on the oral language and reading comprehension of Grade 1 ELLs	The study became linked to the school-wide literacy goal of expanding students' vocabulary. The control group learned three Tier 2 words weekly through the school read-aloud program. The treatment group learned five Tier 2 words. The intervention took place 20 minutes daily during the literacy block, 5 days per week.	The intervention class gained 9.23 points while the control class gained 1.82 points in the Early Reading Diagnostic Assessment (ERDA) vocabulary posttest. Although both ELLs and EPs in the intervention showed an increase in the posttest, the EPs gained 10.94 points over the ELLs, (14.28 vs. 3.34). The ERDA listening comprehension posttest results at the end of the treatment revealed that the intervention class had gains of 26.15 points over the pretest, while the control class had 2.73 points in gains.
Cena (2009)	50 Grade 1 students who attended a Spanish literacy program	To investigate the impact of using Vocabulary Enhanced Systematic and Explicit Teaching Routines (VE SETR) on vocabulary development of first-grade students in Spanish reading programs.	The treatment consisted of using Vocabulary Enhanced Systematic and Explicit Teaching Routines (VE SETR) on vocabulary development. The VE SETR treatment group received 75 minutes of core reading instruction based on the McGraw-Hill reading curriculum, *Tesoros*, with systematic and explicit teaching routines (SETR) that targeted phonics, phonemic awareness, fluency, vocabulary, and	The VE SERT intervention had a statistically significant effect on vocabulary growth on the Depth of Vocabulary Knowledge. The BVAT administered in English showed a slight gain for the VE SERT group, which suggests that as students acquire vocabulary in their first language, they build a foundation to support vocabulary development in their second language.

[21] According to the Florida Center for Reading Research (FCRR, n.d.), Tier 2 words are commonly used in writing and to gain knowledge in reading (Dietrich, 2008).

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
			comprehension, and 15 minutes of VE SETR instruction in small groups. The SETR comparison group received 90 minutes of core reading instruction curriculum, *Tesoros*, with the SETRs only without the 15 minutes dedicated to vocabulary instruction.	

Table 24

Studies on Reading Comprehension Among ELLs Reviewed by the NLP (2006)

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
Swicegood (1990)	95 Grade 3 Spanish-speaking ELLs	To examine the effect of self-questioning on reading comprehension	In this study 95 native Spanish-speaking bilingual students were randomly assigned to two groups. The treatment group asked themselves questions during the daily 90-minute Spanish reading class.	At the end of 6 weeks of instruction, there were no significant differences in either Spanish or English reading. The students did not transfer the questioning strategy to English and they did not use it in Spanish either.
Shames (1988)	58 Grades 9 to 11 ELLs—46 Haitian Creole-speaking and 12 Spanish-speaking students	To examine the effect of instruction in phonics, vocabulary, grammar, and comprehension strategies on reading comprehension over an entire school year	All participants were classified as Level 1 ESL students although their stay in the United States varied from less than 2 months to over 1 year. The three treatment groups were assigned to three sections of ESL Reading and Writing I while the control group was assigned to the ESL Reading and Writing II. The latter group also met the criteria for level I ESL. One of the experimental groups created their own reading materials in their native languages. Students' conversations were audiotaped, listened to, written down, and read with assistance from teachers. Teachers supported students with the translations, vocabulary, and grammar. These stories were used as part of the materials for the other classes, including the control group. Students took approximately 2 weeks to complete each unit on a given prompt. The second treatment group was instructed to use comprehension	Both the comprehension strategies group and the combination group performed significantly better than the control group. However, the composition-translation group did not.

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
			strategies (Know—Want to Know—Learned [KWL], and Question—Answer Relationships [QAR]. This group used mainly selections from an American history text in addition to some of the stories from the composition-translation group. The third treatment group used a combination of the composition-translation and comprehension strategies conditions, alternating each type of instruction every 2 weeks.	
Bean (1982)	Grades 4 and 5 Spanish-speaking ELLs	To examine the effect of revising an English text to improve ELLs' comprehension	This study examined the effect of revising a story in English for ELLs. In one version of the story, there was a clarification of pronoun referents. In the other version, in addition to clarified pronoun referents, the researcher deleted information not relevant to the story grammar. Students had to read one of the versions, retell the story, and answer 10 questions related to key ideas in the story.	The comparison of the recall information read from the texts showed that only the third version, which clarified pronoun-referents and eliminated the irrelevant events was easier than the original version. There were many limitations to this study because it only included one text and the changes of the text resulted in changes in its readability.

Mendes (2015) Adapted from August & Shanahan (2006)

Table 25

Studies on Reading comprehension Among ELLs from 2006 – 2015

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
Yoro (2007)	1,376 Grade 3 ELLs	To examine the strength of three independent variables: oral English proficiency, oral reading fluency, and academic vocabulary knowledge as predictors of reading comprehension for ELLs	Used a path analysis to estimate the magnitude and significance of the relationship between (a) oral English language proficiency (scores for listening comprehension), (b) oral reading fluency (scores for WCPM), and (c) academic vocabulary knowledge (scores for word analysis, and vocabulary skills) and reading comprehension proficiency (scores for three standardized measures of reading comprehension proficiency).	Academic vocabulary knowledge might be a stronger predictor of ELLs' reading comprehension proficiency than oral English language proficiency or oral reading fluency measured by WCPM. Oral reading fluency might be the weakest predictor of Latino ELLs' reading comprehension proficiency. The WCPM scores for Latino students did not show a strong correlation to reading comprehension as it has shown for EPs. There was also a weak correlation between oral English language proficiency and reading comprehension.
McKeown and Gentilucci (2007)	27 middle school ELLs; 5 students were Early Intermediate (Level 2), 11 were Intermediate (Level 3), and 11 were Early Advanced students (Level 4).	To examine how the Think-Aloud Strategy affects content area reading comprehension of middle school ELLs	The treatment consisted of modeling Think-Aloud strategies over a two-week period, three days a week for 20 to 30 minutes during the 50-minute reading class. The author used a social science text and the novel *The Outsiders* by S.E. Hinton (2007, Puffin). During the two weeks after students applied the Think-Aloud Strategy while the author monitored them.	For the Early Intermediate students (Level 2), the use of the Think-Aloud Strategy did not improve ELLs' comprehension of expository tests. The scores of the pre- and posttests were almost identical. For the Intermediate students (Level 3), there was a growth in students' reading comprehension between pre- and posttests although it was not statistically significant. For the Early Advanced students (Level 4), the Think-Aloud strategy had a negative effect on reading comprehension. Eight of 11 students had lower posttest scores while two had higher posttest scores and one remained the same. Although ELLs are able to employ metacognitive strategies, such as think-aloud, the students' language proficiency determines the effectiveness of this strategy

AUTHOR/ YEAR	SAMPLE	PURPOSE	TREATMENT	RESULTS
Handyside (2007)	33 Grades 4 and 5 Spanish-speaking ELLs at basic and intermediate level of English proficiency	To examine how metacognitive training affects ELLs' reading comprehension.	Explicit, direct instruction on how to use and monitor six specific reading strategies: previewing, predicting/verifying, drawing from background knowledge, setting a purpose for reading, self-questioning and summarizing, and applying fix-up strategies (monitoring). It took place during 90-minute sessions, twice a week for six weeks.	ELLs increased their reading comprehension scores on the SRI from pre-test to posttest.
Kieffer and Lesaux (2008)	87 Grades 4 and 5 Spanish-speaking ELLs	To examine the relationship between morphological awareness and reading comprehension among Spanish-speaking ELLs	Used an experimental decomposition task to measure students' derivational morphological awareness in English. Also used the Woodcock Language Proficiency Battery-Revised (WLPB-R) Passage Comprehension subtest and Gates-MacGinitie (G-M) to measure reading comprehension.	Derivational morphological awareness impacts the reading comprehension of Spanish-speaking ELLs in the upper elementary years. The relationship between derivational morphologic awareness and reading comprehension grew from fourth to fifth grade, suggesting ELLs' ability to use morphology to learn new words develops throughout upper elementary years and middle school.
Logan (2010)	292 ELLs and EPs in Grades 2 and 3	To investigate the difference in morphological awareness between ELLs and EPs. To examine the influence of morphologic awareness on the reading skills of these two groups.	Used a stem production task as a morphological awareness measure referred to as Decomposition. Used two subtests of the (WRMT-R) to assess word reading, two subtests of the Woodcock Muñoz Language Survey-Revised (WMLS) to assess vocabulary, and the Passage Comprehension subtest of the (WRMT-R)	ELLs in Grades 2 and 3 had lower mean scores on Decomposition, word identification, vocabulary, and reading comprehension than EP peers. Word reading, vocabulary, and morphological awareness had comparable relationships with each other and with reading comprehension for both ELLs and EPs. Given that all factor correlations were moderate, the researcher concluded that their impact on comprehension overlapped. Word reading and vocabulary factors had significant effects on comprehension; word reading showed the highest total effect (.91 for EPs, .94 for ELLs).

Appendix B. Invitation Letter for SIFE Teachers

Lesley UNIVERSITY

Graduate School of Education

INVITATION LETTER

February 26, 2018

Dear Middle and High School SLIFE Teachers:

This letter is to invite you to participate in a very exciting and special research project that can positively impact your own teaching of Spanish-speaking SLIFE to learn how to read through Spanish instruction in 40 hours or less.

This new approach to literacy is based on the renowned Paulo Freire Method of *Alfabetización* integrated with Universal Design for Learning (UDL) with a primary goal to teach nonliterate Spanish-speaking SLIFE how to read through Spanish instruction in 40 hours or less, given that this school age population is at a very high risk of dropping out of school. Without the basic literacy skills that will enable them to take any job that requires reading and writing, these students will most likely endure limited job opportunities and, consequently, not a successful life. Just recently, I learned through a friend that a machine repairer who came to her house had to access the Internet through an IPad to be able to complete his work.

My name is Maria João Mendes and I taught middle school for 35 years. Presently, I am a doctoral student at Lesley University working on my dissertation. This research project is part of this work, which focuses on the creation and validation of a new literacy model for nonliterate Spanish-Speaking SLIFE to learn to read in a short amount of time.

We will meet at the Umana Academy on Monday, March 12 at 2:30 PM, for 3 to 4 hours for a workshop, where I will introduce the Freire-UDL Literacy Model, demonstrate its use and

review the Teachers Guide for your input. As a result of your participation in this project, each one of you will receive a copy of the final guide for your own use.

I would also like to stress that your participation in the study is voluntary and it presents no risks for the participants.

I believe that your participation in validating the new literacy model for nonliterate Spanish-speaking SIFE will be very beneficial for your practice because of the limited resources SIFE teachers have to teach this student population.

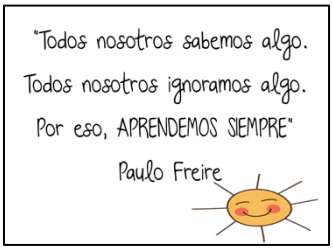
It is urgent and pressing that we meet these students' needs. They need our help!

I thank you in advance for your support. Please do not hesitate to contact me through my email: mmendes@lesley.edu or cell phone # 781-526-7709 if you have any questions at any point.

Sincerely,

Maria João Mendes
Doctoral Student

Cc: Dr. Maria de Lourdes B. Serpa, Senior Advisor, Lesley University



Appendix C. Agenda for Teacher's Guide Validation Workshop

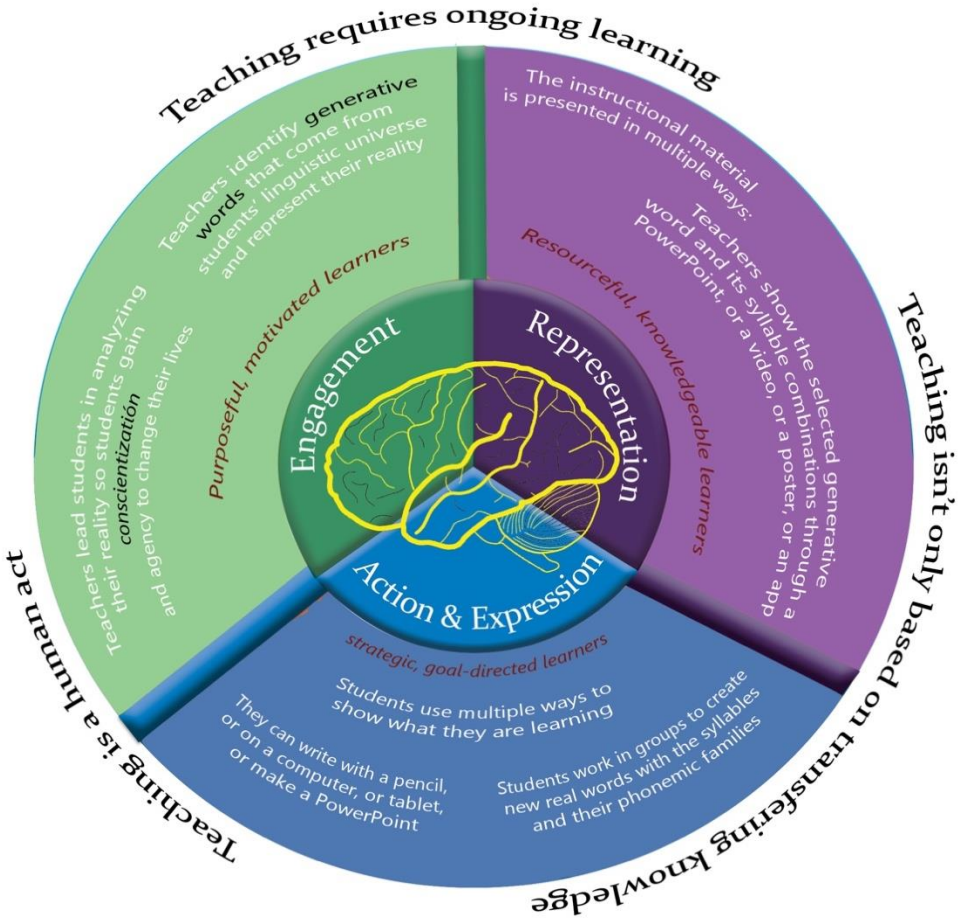
THE FREIRE-UDL LITERACY MODEL: TEACHING LITERACY TO SPANISH SIFE

TEACHER'S GUIDE VALIDATION WORKSHOP

M. João Mendes, PhD Candidate, LESLEY UNIVERSITY

March 12 (3:00 PM- 6:00 PM) *

Umana Academy, Boston Public Schools, MA. USA



AGENDA

2:30 pm (10m)	Welcome and Purpose of Workshop
2:40 pm (10m)	Introductions - What's in a name?
2:50 pm (5m)	Overview of Agenda
2:55 pm (5m)	House Keeping: Consent Forms, Freire-UDL Teacher's Literacy Guide, and PPT Copies
	FOUNDATIONAL KNOWLEDGE
3:00 pm (30m)	The Freire-UDL Literacy Model (PPT)The problem of teaching literacy to SLIFE Benefits to SIFE teachers Definition of Essential Terms Overview of the Freire-UDL Model The Power of Generative Words
3:30 pm (50m)	Guided Review of the Freire-UDL Teacher's Literacy Guide: Section 1 Section 2 Section 3 Section 4
	Sample of Literacy Practice –Freire-UDL *Alfabetización*
4:10 pm (40m)	*Conscientizatión* Experience Exercise Practice teaching with the first ***generative*** word: a, e, i, o, u, p, l, t
5:00 pm (10m)	Dialogue
5:10 pm (40m)	Validation Questionnaire
	Closing. Thank you, Gracias, Obrigada…

TO READ THE WORD TO READ THE WORLD IN 40 h

Based on Paulo Freire

Appendix D. Teacher's Consent Form

LESLEY UNIVERSITY

GRADUATE SCHOOL OF EDUCATION

Doctoral Student: Maria João Mendes

Senior Advisor: Dr. Maria de Lourdes Serpa

March 12, 2018

Consent to Participate in a Study

Freire-UDL Literacy Model

Teaching Literacy to Nonliterate Spanish-Speaking Students

with Interrupted Formal Instruction (SIFE)

I am a doctoral student at Lesley University working on my dissertation research. The focus of this study is to create a new literacy model that incorporates the Paulo Freire methodology of *Alfabetização/Alfabetización* with the Universal Design for Learning (UDL) framework to support middle and high school teachers who teach Spanish-speaking nonliterate SLIFE how to read in Spanish. Through this model, nonliterate Spanish-speaking SLIFE will be able to learn how to read in Spanish in 40 hours of instruction. You are invited to participate in this study, which will contribute greatly to literacy learning for these students. Please read this form before agreeing to participate.

Teachers who wish to participate in the study of this new literacy model will get a copy of it as well as a copy of the Teacher's Guide. After that, teachers are asked to answer a validation questionnaire about the model on-line. Your participation is voluntary, you may skip any questions you do not wish to answer or terminate your participation at any point without any penalty. This study is anonymous. You are not requested to write your name on the survey, unless you wish to be acknowledged as a participant in the validation of this study. Answers to the questionnaires will not be shared with other participants. Interactions with participants will be done through individual emails.

There are no risks in participating in this study. You are not requested to implement this model in your classroom or provide any results. The benefits of participating in this study include receiving a copy of the new literacy model and the teacher's guide, which will benefit your practice in teaching nonliterate Spanish-speaking SIFE how to read in Spanish in the

shortest amount of time possible. Please do not hesitate to contact me at any point if you have any questions. My email is mmendes@lesley.edu and my cell number is 871-526-7709. My senior advisor is Dr. Maria de Lourdes Serpa. You may contact her through email—mserpa@lesley.edu.

There is a Standing Committee for Human Subjects in Research at Lesley University to which complaints or problems concerning any research project may, and should, be reported if they arise. Contact the Committee Chairperson at irb@lesley.edu

Your signature below indicates that you have decided to volunteer as a participant for this study, and that you have read and understood the information provided above. You will be given a signed and dated copy of this form to keep, along with any other printed materials developed by the study investigator in the creation of the model.

Your participation is invaluable, and I thank you all for your contribution.

Participant's Name (Print) _____

Participant's Signature _____ Date: _____

Investigator's Signature _____Date: _____

Appendix E. Validation Questionnaire for Freire-UDL Literacy Guide

Graduate School of Education

Validation Questionnaire for Freire-UDL Literacy Model Guide

Doctoral Student: Maria João Mendes

Senior Doctoral Advisor: Dr. Maria de Lourdes Serpa

Name (Optional) Position: Grade:

Language proficiencies:

Instructions:

Please fill out this validation questionnaire which uses two kinds of items: A Likert Scale 1-5 and open questions. Please use the back of this page if you need more space.

Section 1 **Theoretical foundation**	**1** **Least**	**2**	**3** **Ok**	**4**	**5** **Most**	**No. of Responses**
How clear is the overview of this model of *alfabetización*?						
How clear is the concept of integrating Freire's Pedagogy with the UDL Framework in creating an efficient literacy model for SIFE?						
How familiar were you with UDL in general before this session?						
How familiar were you with Freire's Pedagogy before this session?						
Any further comments that you may have about this section of the teacher's guide, please write in this space						
Any further comments that you may have about this section of the teacher's guide, please write in this space						

Section 2 **Conscientización**	**1** **Least**	**2**	**3** **Ok**	**4**	**5** **Most**	**No. of Responses**
How clear is the concept of *Conscientização / Conscientización?*						
How clear are the directions in guiding you as a teacher to support the development of students' *Conscientização / Conscientización?*						
Do you recommend any modifications in this section? If you do, please explain.						
Any further comments that you may have about this section of the teacher's guide, pleasewrite in this space						

Section 3 ***Alfabetización***	**1** **Least**	**2**	**3** **Ok**	**4**	**5** **Most**	**No. of Responses**
How clear is the concept of *alfabetización* through the new model?						
How clear are the directions in guiding you as a teacher to teach this method?						
Do you recommend any modification in this section? If you do, please explain.						
Any further comments that you may have about this section of the teacher's guide, please write in this space.						

Section 4 **Lesson Demonstration**	**1** **Least**	**2**	**3** **Ok**	**4**	**5** **Most**	**No. of** **Responses**
How clear was the demonstration of *conscientización*?						
How clear was the demonstration of teaching the method of *alfabetización*, using the new model?						
Do you recommend any modifications in this section? If you do, please explain						
Any further comments that you may have about this section of the teacher's guide, please write in this space						

Section 5 **Student Assessment Praxis**	**1** **Least**	**2**	**3** **Ok**	**4**	**5** **Most**	**No. of** **Responses**
Should assessment be both a self-assessment and a peer assessment after every lesson?						
Should students use technology in assessment of their newly acquired skills such as Kahoot?						
Do you recommend any modifications in this section? If you do, please explain.						
Any further comments that you may have about this section of the teacher's guide, please write in this space.						
As a participant in this study you will be receiving a final copy of this *Guide*. Would you like more professional development with regard to using this method of teaching literacy in less than 40 hours? If yes, in what areas would you like more professional development in regards to using this method?						

Follow-up Opportunity

As a participant in this study you will be receiving a final copy of this guide. Would you like more professional development in regards to using this method of teaching literacy in less than 40 hours? __ Yes __ NO

If yes, in what areas would you like more professional development in regards to using this method?

Thank you very much- Muchas gracias… for your contribution and participation in this **Freire-UDL Literacy/*Alfabetización* Model** study to teach Spanish-speaking non-literate SIFE to read through Spanish. Your input is greatly appreciated.

M Joao

Appendix F Concepts Used by Paulo Freire

See also http://www.freire.org/paulo-freire/concepts-used-by-paulo-freire

Paulo Freire's pedagogical approach has been applied in many contexts, but it is more than simply a collection of methods or techniques. Here we outline briefly some of the key concepts in Freire's work.

Praxis (Action/Reflection)

It is not enough for people to come together in dialogue in order to gain knowledge of their social reality. They must act together upon their environment in order critically to reflect upon their reality and so transform it through further action and critical reflection.

Generative Themes

According to Paulo Freire, an epoch "is characterized by a complex of ideas, concepts, hopes, doubts, values and challenges in dialectical interaction with their opposites striving towards their fulfilment". The concrete representation of these constitute the themes of the epoch. For example, we may say that in our society some of these themes would include the power of bureaucratic control or the social exclusion of the elderly and disabled. In social analysis these themes may be discovered in a concrete representation in which the opposite theme is also revealed (i.e., each theme interacts with its opposite).

Easter Experience

Paulo Freire says that "those who authentically commit themselves to the people must re-examine themselves constantly. This conversion is so radical as not to allow for ambivalent behaviour… Conversion to the people requires a profound rebirth. Those who undergo it must take on a new form of existence; they can no longer remain as they were."

Dialogue

To enter into dialogue presupposes equality amongst participants. Each must trust the others; there must be mutual respect and love (care and commitment). Each one must question what he or she knows and realize that through dialogue existing thoughts will change and new knowledge will be created.

Conscientization

The process of developing a critical awareness of one's social reality through reflection and action. Action is fundamental because it is the process of changing the reality. Paulo Freire says that we all acquire social myths which have a dominant tendency, and so learning is a critical process which depends upon uncovering real problems and actual needs.

Codification

This is a way of gathering information in order to build up a picture (codify) around real situations and real people. Decodification is a process whereby the people in a group begin to identify with aspects of the situation until they feel themselves to be in the situation and so able to reflect critically upon its various aspects, thus gathering understanding. It is like a photographer bringing a picture into focus.

Banking concept of knowledge

The concept of education in which "knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing".

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