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FIRST GRADERS AS SENSITIVE SOCIAL PARTNERS AND SKILLED READERS

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FIRST GRADERS AS SENSITIVE

SOCIAL PARTNERS AND SKILLED READERS

A Dissertation

Submitted to the Faculty

of

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by

Zaira R. Arvelo Alicea

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LIST OF ABBREVIATIONS

US-United States

PR-Puerto Rico

QUAN-quantitative

QUAL-qualitative

ToM-Theory of Mind

NLS- New Literacy Studies

SES- socioeconomic status

MMR-mixed methods research

TVIP-test de vocabulario en imágenes Peabody

CAP-concepts about print

IRI-informal reading inventory

FB-false belief

ET-eyes test

WPBR-wordless picturebook reading

WPBR-V-wordless picturebook reading-verbal

ABSTRACTS

Arvelo Alicea, Z. R. Ph.D., Purdue University, December 2015. First graders as sensitive social partners and skilled readers. Major Professor: Judith T. Lysaker

This mixed methods dissertation is guided by a sociocultural framework and a pragmatist stance to contribute to early literacy scholarship about minority children. In particular, I explore the relationship between low socioeconomic status Puerto Rican children's reading experience and their social cognition by: (1) assessing them through quantitative and qualitative measures that reveal their capacities in these areas at the end of their first grade year, and (2) documenting their reading experiences at home and at school through ethnographic qualitative methods. The analyses revealed significant positive correlations between the tests of reading and social understanding, a scarcity of conventional reading practices in the home, the predominance of a whole-class basal approach to reading in the classroom, and discrepant cross-methods findings regarding who qualifies as a reader and who has insights about the social world.

Esta tesis doctoral emplea métodos mixtos dentro de un marco sociocultural y un enfoque pragmático a fin de contribuir a la literatura científica respecto a la alfabetización temprana de grupos minoritarios. Se explora la relación entre las destrezas de lectura y las destrezas socio-cognitivas en un grupo de niños puertorriqueños de bajos recursos por medio de dos vías de abordaje: (1) métodos cualitativos y cuantitativos de

que examinan las capacidades de los niños en estas áreas al final de su segundo semestre de primer grado y (2) métodos cualitativos etnográficos que documentan la experiencia de los participantes leyendo en su hogar y en el salón de clases. El análisis reveló correlaciones positivas y significativas entre los exámenes de lectura y los socio-cognitivos, carencia de actividades de lectura tradicional en el hogar, énfasis en la utilización de métodos de enseñanza dirigidos a toda la clase con un solo libro de texto y discrepancias en el entrecruce de datos respecto a quien cualifica como lector y quien tiene conocimientos sobre el mundo social.

CHAPTER 1. INTRODUCTION

In this chapter, I present the shortcomings and reverberations of available literature on the cognitive and literate capacities of minority children to establish the need for the current study. Then, I present a brief overview of this dissertation, including the statement of purpose and research questions. Finally, I explain the theoretical foundation through a discussion of some key constructs.

When I began conceptualizing this dissertation, I was interested in working with Puerto Rican children. At that time, I had already had the opportunity to work with Spanish-speaking, college-level students learning English in Puerto Rico, elementary level English Learners in Indiana, and prospective teachers wishing to meet the needs of the growing Latino population in the United States (US). Despite the many positive insights yielded from these exchanges, I continued to wrestle with two underlying assumptions (a) the perception of literacy as an isolated subject or an academic requirement, almost disjointed from children's lives and (b) a deficit view of the child from low socioeconomic means whose identity as learner seemed to be defined by one marker: what was 'lacking.' In my view, schools' sanctioned definitions of literacy, selected ways to examine competency and judge students' actions around literacy (Compton-Lilly, 2007, in her unpacking of Collin's theoretical work on literacy) created hierarchies that rendered this population wanting.

My dissatisfaction with this approach to perceiving learners in general, lead me to pursue a more holistic view of the person, one that emphasizes the many ways in which such children maneuver across cultural ways of communicating and participating in the social world. Becoming literate is in my view accompanied by the child's learning purposes and the contexts in which this process takes place; it is a sociocultural process. The minority and low SES labels—American schooling's way of categorizing children who happen to belong to certain communities—are attributes that do not need to capture the complexity of the child's literate and social experiences. As scholars have posited for years now, Latino children in the US, many of which are English Learners too, are members of multiple communities and capable communicators across spaces (Jiménez, 2001).

In Puerto Rico's public schools where this study was conducted, Spanish-speaking children also encounter contrasts when they enter schools. Similar to their Latino and to some English learning peers in the US, Puerto Rican children's educational experience is permeated by a colonial model where education should lead to betterment (Rosado Ortiz, 2012). Whether we speak of Latinos in the US or children in Puerto Rico, a main issue that is still pertinent in my view, is this conception of becoming literate as knowledge children must learn or acquire. Instead I propose that we conceptualize it as something that children do. For years now, scholars from various disciplines have argued for the constitutive power of language over the human being, making language events spaces for personal transformation (Fernyhough, 2008; Vygotsky, 1978). Through this alternative view, we can fathom all types of plausible transformations in the learner, who

is involved in a highly symbolic, social, and cognitive process (Lantolf, 2007). To date a growing body of literature supports this argument.

As I explain in more detail later in the "Literature Review," there exist straightforward and constricted definitions of what it means to be a civilized and literate person (Gee, 1986). Not surprisingly, children who meet these highly valued qualities do not typically come from backgrounds with low means. There are latent perceptions of cultural inferiority as a result of the privileging of particular ways of reasoning in schools and research experiments (Olson, 1994). This coveted reasoning has been connected to the knowledge and practice of literacies, such as the use of print reading and writing (Olson, 1994). This level of so-called intelligence has also been found to be influenced by schooling practices and its dominant discourses (Scribner & Cole, 1981). In brief, literacy is not neutral or autonomous (Street, 1994) and still today many equate a child's literacy capacities with their intelligence and make inferences about whether this individual can function accordingly in the social world. There is a need to pursue holistic conceptions of literacy when we try to examine the extent to which low SES children are social-cognitive beings who can make sense of social situations.

The investigative task, however, is more easily said than done. To date, a lack of cross-disciplinary sharing complicates the pursuit of this worthwhile endeavor. On the one hand, research in the field of cognition largely follows paradigms which emphasize the decontextualized and purportedly unbiased measuring of linguistic and social-cognitive skills. This research has established crucial connections between language and specific social-cognitive skills (Miller, 2006; Milligan, Astington, & Dack, 2007; Nelson, 1996), and it has helped produce an accurate account of how these skills develop during

the early years (Astington, 1998; Astington & Edward, 2010; Meins, Fernyhough, Arnott, Leekam, & de Rosnay, 2013).

On the other hand, literacy researchers have gone past the measurement of isolated social skills to describe and show what they look like in the context of children's readings of fictional stories. They have demonstrated that fictional story books offer a naturalistic context to observe children's understanding of the social world inhabited by character's feelings, intentions, and thoughts or what some has been called *social imagination* (Lysaker, Tonge, Gauson, & Miller, 2011). This work has keyed on the *how* of these social skills, contributing in this manner to the identification of features in children's readings that tap into children's vicarious social-cognitive skills, such as the extent to which they grasp the perspectives of multiple characters and imagine what moves or motivates those characters (Lysaker & Miller, 2012). Granting all this, the work of literacy researchers is found lacking due to a developmental emphasis on what social understanding looks like in the readings of children at various age groups. The focus of the present study shifts from what social understanding looks like in reading events at point X to what different symbolic systems may reveal about a cultural and linguistic group's social understanding.

Similarly, although developmental psychologists have also utilized story books to inquire about children's understanding of mind (Pelletier & Astington, 2004) and to explore whether they are a useful method for this type of study (Clare, Gallimore, & Pattey-Chavez, 1996; Dyer, Shatz, & Wellman, 2000; Dyer-Seymour, Shatz, Wellman, & Saito, 2004; Mar & Oatley, 2008; Mar, Oatley, Djikic, & Mullin, 2011; Mar, Tackett, & Moore, 2010; Szarkowicz, 2000), to date no studies have focused on young low SES

Spanish-speaking children or Puerto Rican samples and their reading of story books in search of what it may reveal about social-cognitive skills. This pursuit seems reasonable for various reasons. As reading scholars have contended, reading is a dynamic process where readers engage in a type of *choosing activity* sending some aspects of the text to the background and bringing others to the forefront of their interpretation (Rosenblatt, 2008). In her view of reading, Rosenblatt (2008) borrowed from William James' concept of *selective attention* and defined reading as an interactive, interpretative, and experiential process where readers select which aspects of text and their own experiential reservoirs to attend to. In other words, reading in this view does not reside in the text but in the reader's capacity to transact with the symbols on the page.

Nonetheless, reading research and testing with its focus on decoding has helped portray a dire image of minority children, specifically those from Spanish-speaking backgrounds. Information on how reading works continues to be tied to print, as exemplified through the strong focus on the reading comprehension program in the US (RAND, 2002). Some of what we know from the print oriented reading research is that language minority samples have lower print knowledge (Lonigan, Farver, Nakamoto, & Eppe, 2013) and vocabulary (Babayiğit, 2014) and display poorer comprehension (Babayiğit, 2014; Grant, Gottardo, & Geva, 2012; Lonigan et al., 2013). As leading scholars in reading research and school reform have critiqued (Pearson, Hiebert, & Kamil, 2007; Ravitch, 2011), the prevailing emphasis on norm-referenced tests simply allows us to compare test-takers to one another; the problem in my view, is that they don't tell us much about what children know or what they can do beyond yielding a number of known vocabulary words. The impetus has been to compare minority children

to Caucasian children, English Learners to monolinguals, low SES to middle-class sampels, just to name a few; specifically to check on how they fare in various components of weight to reading comprehension, such as word recognition and vocabulary knowledge.

Knowledge of print is but one aspect in the multifaceted process of comprehending story (Babayiğit, 2014) and it is worth pursuing the possibility that attention to print has served to highlight areas of limitation. I propose that we consider instead visual narratives in the conceptualization of the association between reading and social understanding because visual narrative assessments can have several advantages over standardized reading assessments. Picturebooks are sensitive, appropriate instruments to assess children's narrative comprehension (Devescovi & Baumgartner, 1993) that hold predictive validity for ensuing reading comprehension (Paris & Paris, 2007). To understand picturebooks, children must draw from some of the same skills used to comprehend printed narratives, like integrating characters' goals, emotions, and dialogue to make inferences (Paris & Paris, 2007). More importantly, literacy researchers have used wordless picturebooks extensively as medium to assess other relevant phenomena too, such as children's meaning making (Martens, Martens, Doyle, Loomis, & Aghalarov, 2012; Paris & Paris, 2003; Paris & Paris, 2007), sense-making (Crawford & Hade, 2000), and social imagination (Lysaker et al., 2011).

These interdisciplinary studies have served to challenge pervasive views of the reader and current definitions of reading. They have highlighted the value of wordless picturebooks as medium to document children's understandings of narratives. Their varied collection of reading data—including audio and video recordings—have allowed

researchers to revisit children's readings responses to provide detailed accounts of what children do, shedding light on children's meaning making. For instance, researchers have explored children's stories to document syntactic constructions and terms used by them to express causality between characters' actions and the feelings, thoughts, and intentions that may guide it (Lysaker & Miller, 2012). Others have looked at children's use of reading rituals, like formally introducing a book by author's name and title, to check on how previous knowledge and literary experience featured in their reading (Crawford & Hade, 2000).

These studies help contest passive views of the reader as someone who simply grasps the author's message or comprehends a text, whether it is pictorial or print based. Drawing from various areas including transactional theories of reading (Rosenblatt, 2001) and the field of multiliteracies (The New London Group, n.d), this research has brought attention to reading as an activity that involves the entirety of the reader, including the child's language ability (Rosenblatt, 2001), past social and relational histories (Lysaker, 2006), cultural experiences (Matthews & Cobb, 2005), and purposes for approaching and using texts (Dyson, 1989; Grabe, 2009). The reader in this view is thus an active maker of meaning who brings to the reading event an array of skills and competencies, knowledge, and personal experiences. The proposed relationship between the reader and the text is best characterized as *transactional*—resulting from the child's investment in the process of making meaning of the signs on the page (whether these are images or words) in light of his or her own experiential and linguistic reservoirs (Rosenblatt, 2008).

In brief, wordless picturebook reading tasks are thus a developmentally sensitive way to assess children's understandings of story that resemble the types of meaning making activities children would engage in while reading and interpreting the texts that surround them at school, home, and their communities. Moreover, these tasks prevent a confounding with decoding skills, draw from many of the same processes involved in reading comprehension, represent an equally complex assessment of reading skills, and yield rich data on children's meaning making capacities, including their ability to interpret the social world.

The Current Study

This dissertation aims to contribute to an understanding of social-cognitive skills, particularly an understanding of mind, which mostly comes from Western populations (Shatz, Diesendruck, Martinez-Beck, & Akar, 2003; Vinden, 1996) and social imagination, usually informed by the reading performances of Anglo children.

The bulk of research on young children's social-cognitive skills, particularly those associated with Theory of Mind, such as false belief understanding concerned with knowledge on how beliefs guide actions, have targeted universals rather than variability (Cole & Mitchell, 1998). Notwithstanding, research conducted with children from non-Western cultures and minorities has suggested that there remains much to be learned about how culture influences children's social-cognitive skills (Carlson & Meltzoff, 2008). Consider evidence suggesting task effects as explanation for non-Western children's low performance. In a study of Junín Quechua children in Perú, Vinden (1996) argued that the forced-choice format of the social-cognitive tasks proved so difficult that some tasks had to be eliminated. Likewise, Shatz et al. (2003) in a cross-cultural study of

mind, concluded that Puerto Rican children were less willing to talk about inner states and resisted offering reasons for adult behavior to an adult experimenter, whereas Curenton (2004) found that African American children were less likely to succeed in these tasks. These studies however are tiny specks in a sea of literature with privileged samples.

These studies suggest that cultural experiences may influence children's developing understandings of mind and their success in these tasks. Some of the possible explanations provided by the authors include the extent to which children's languages explicitly mark mental states (Shatz et al., 2003), the degree to which a community speaks openly about emotions (Vinden, 1996), and the possibility that these tasks tap into Western European views of human behavior (Curenton, 2004). Thus, like them I argue here that failure in a Theory of Mind task does not entail lack of concept mastery, it well may be that what we know about the mind of young children from varied cultures continues to be measured against the standard: the early linguistic interactions which feature as an important component of middle and upper classes (Shatz et al., 2003). Simply put, much like the value laden literacy research, cognitive and social-cognitive research also purports strict definitions of what it means to be intelligent and a social actor.

Knowing more about these cultural nuances is of extreme important. Given strong associations between language ability and an understanding of mind (Miller, 2006; Milligan et al., 2007), and negative correlates between low SES and false belief understanding (Curenton, 2004; Shatz et al., 2003), one would expect children from such backgrounds to struggle in tasks of social-cognitive skills. Unfortunately, the available

literature is scant and contradictory (Curenton, 2004; Shatz et al., 2003; Vinden, 1996). The present study brings children's reading and social-cognitive skills to the center as phenomena to be examined and to be viewed as an activity of importance for children who are not only low SES and Puerto Rican but social and literate beings. It is my belief that integrating these phenomena—from the areas of psychology and reading—also addresses the preoccupation of literacy experts with the thematic diversification of our research (Dillon, O'Brien, & Heilman, 2000). This dissertation represents my attempt to join other literacy researchers concerned with extending the epistemologies that guide our field and who wish to become conversant in various methodologies (Duke & Mallette, 2001).

Purpose Statement

This mixed methods dissertation is guided by a sociocultural framework and a pragmatist stance to contribute to the early literacy scholarship on minority children. In particular, I explore the relationship between low socioeconomic status Puerto Rican children's reading experience and social cognition by (1) assessing them through quantitative measures and qualitative tasks that reveal their capacities in these areas at the end of their first grade year, and (2) documenting their reading experience in the home and school through ethnographic qualitative methods. The analyses revealed: significant positive correlations between the tests of reading and social understanding, a scarcity of conventional reading practices in the home, the predominance of a whole-class basal approach to reading in the classroom, and discrepant cross-methods findings regarding who qualifies as a reader and who has insights about the social world. The research questions pursued in this dissertation are:

1. What is the reading experience of a group of Puerto Rican children?

2. What are the social-cognitive capacities of a group of Puerto Rican children?

3. In what ways is social understanding apparent in a reading event?

4. What is the relationship, if any, between the reading experience of a group of Puerto Rican children and social understanding?

5. What opportunities exist in classroom literacy events, particularly reading, to express/rehearse social understanding?

Briefly put, this dissertation presents an overview of social-cognitive and reading abilities using typical measures from the fields of psychology and reading, which provide a common language to extend scholarship in these disciplines and allow the study of plausible cultural nuances. In addition, it provides a detailed description of children's social understanding and interpretative activity during reading events using ethnographic and naturalistic methods from the field of literacy research, which capitalize on the child as a highly complex literate and social being rooted in a particular culture.

Definition of Terms and Concepts

This section presents the world view framing this dissertation. To do so, I define a series of key constructs from cultural-historical theory and incorporate some insights from dialogic theory. In so doing, I aim to demonstrate the suitability and necessity of a cultural-historical take towards English learners' capacity to understand others through reading events.

Human consciousness. As a psychological theory, the sociocultural framework advances that human development is influenced by two paths commonly known as the organic path and the cultural one (Vygotsky, 1978). Although socioculturally minded

scholars do acknowledge the contributions of biological universals to development, they place larger emphasis on the historical context in which the individual is immersed (Wertsch, 1991). This cultural-historical focus responds to the belief that social interaction is the medium where individuals appropriate a *cultural tool kit*; a set of tools that move individual development forward (Wertsch, 1991, p. 25). In short, they argue that important psychological transformations occur when cultural tools—such as language, typical ways to solve problems, and common techniques used for remembering (Zinchenko, 1995)—are taken from the external plane of social interaction and brought into the intrapersonal space of the self (Vygotsky, 1978). Later in this chapter, I entertain in more detail the term cultural tools and address the quality of these transformations. As a type of introduction, note that my focus on this section is specifically on changes in the child's consciousness; one that is unlike that of the *adult* (Vygotsky, 1978). Simply put, I argue here—as others have done before—that with the aid of a cultural kit the child's mind shifts away from the basic mental functions geared at survival and moves closer to the higher mental functions essential to strictly human ways of life and interaction (Vygotsky, 1978; Wertsch, 1991).[1]

While the focus of the present work is not on development *per se*, Vygotsky's exploration of the development of consciousness helps set the stage for this study's take on mind: one that is characteristically social and mediated (Wertsch, 1991). The focus of this section is on mind as comprising various interrelated functions (Vygotsky, 1978). Contrary to what is established by traditional psychology, I do not focus on singular mental processes or endorse a fragmented view of the mind as made up of separate parts

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[1] Although Vygotsky did not employ the term cultural kit, he did discuss extensively how the internalization of cultural tools results in cognitive changes.

that work together in a summative way (Vygotsky, 2004/1997). Instead, like Vygotsky (1987c), I conceptualize consciousness as a unified whole functioning dialectically. While I recognize the value of knowing about how individual mental functions evolve, I delve here on their interfunctional character: how the relationships among functions change and lead to varying psychological systems (Vygotsky, 1978).

Consider for instance the connections that occur between important mental functions during childhood with the advent of a cultural tool like language. Memory, just to provide an example, gradually changes from being a basic automated and spontaneous activity and becomes conscious activity (Bruner, 2004). In its earlier and most basic system, memory relies solely on external visual perception, i.e., on the presence of the actual object or the immediacy of the subject in question (Vygotsky, 1978). It could be said that at that point, "to see" means "to know and to remember." In the new mediated act (a concept to which I shall return), where language is added to the activity, this object or person is perceived or represented internally via thought and shaped by its reformulation in speech (Vygotsky, 1978). In this more developed system mediated by language, "to remember" means to abstract this object or person in thought and to construct it verbally for others and in speech for the self. The person or object exists beyond the physical present independently of environmental stimulus and the new time field allows this object or person to have a past and even a plausible future (Vygotsky, 1978). Thus, when we refer to changing functions, we also imply that the whole of consciousness and conversely the person shift too.

As I hope this example of functional change has suggested, I do not conceptualize mind using the long standing view typically espoused by psychologists and

developmentalists (Wertsch, 1991) in their efforts to trace the development of isolated mental processes and study individual behavior, the brain, and other universals. Another issue with such a view is a disregard for the *less-intellectual* functions of affect and volition in an understanding of consciousness and the primacy given to thought (Vygotsky, 1987c). To use Vygotsky's provocative statement, this philosophy erroneously promotes "thinking itself…[as] the thinker of thoughts" (Vygotsky, 1987c, p. 50): Thought is the powerful and independent function that acts as core to all of mind. In so doing, the proponents of this view reflect Western individualistic perceptions of the human being as someone undergoing developmental steps based on biological givens (Wertsch, 1991) like thought and intellect.

On the contrary, Vygotsky's work held as a central principle the issue of human freedom where humans act in accordance to their own goals, use technical tools to transform their surroundings, and appropriate symbolic ones to break away from biological constraints (Stetsenko, 2004). Yes, the child's mind is initially quite basic, as it is based on sensation and follows stimulus-response like behavior (Vygotsky, 1978). However, its growth is not confined to the brain or primarily driven by thoughts of an individual; in turn, the growth of human consciousness strengthens in the midst of social interaction, culture and its tools, and particularly language. Thus, I endorse a sociocultural view of consciousness (also referred to in other fields as mind) in the midst of culture and personal experience, ridden with motives, emotions, and goals.

Culture. As Cole and Scribner (1978) rightfully argue, a central task of Vygotsky's work was to delineate the relationship between the social environment and the human being. Seminal scholars like Bruner (2004) contended that Vygotsky was

essentially '"a cultural theorist…deeply committed to understanding not simply man [*sic*], conceived as a solo "organism," but man [*sic*] as an expression of human culture…"'(p. 10). Vygotsky recognized culture and its artifacts to be the key to uniquely human forms of behavior and consciousness. His cultural-historical theory is in fact refreshingly parsimonious: Culture is the locus of important knowledge and foundational experiences; in lay terms, his work suggests that ours is a cultural consciousness.

Through social interaction, as Matthews and Cobb (2005) explain, individuals learn the valued communicative purposes and conventions of their social groups and the particulars of a culture; the human culture into which each one of us is born (Stetsenko, 2004). Further, in their homes and communities, they learn basic literacy competencies and later acquire formal ones in other cultural institutions, such as schools (Matthews & Cobb, 2005). In a sense, local and larger culture are paramount in providing the social experiences and cultural tools that individuals need to successfully participate in society and manipulate their environment (Rieber, 2004). Since cultural tools are specific to the places and the purposes for which they are used, and because cultures rely on a cultural kit to communicate, solve problems, and make meaning (Wertsch, 1998), we must speak of human consciousness as grounded in this milieu as well. As an extension of the idea that culture and the environment are intrinsic to individual development, Vygotsky proposed that the use of cultural tools and their internalization transform human action by mediating it, a point of crucial importance in this dissertation. So far, I have solely addressed internal changes to consciousness but what happens externally is just as important.

Cultural tools. As I briefly mentioned earlier, tools are in Vygotsky's formulation what push practical intelligence—the biological capacities inherent in any typically developing human—forward. The emergence of tools alters the uninterrupted stimulus-response link that characterizes early human action (Vygotsky, 1978) by disrupting the connection between the sensory field (i.e., vision) and the motor system (i.e., hand), resulting in new more complex behavior. The study of human action offers a glimpse at the plausible internal transformations caused by the new mediated act, specifically the kind of mediation brought by symbolic tools (I address the concepts of action and mediation in the next subheading). But before I delve into the subject of human transformation, I must digress shortly to define cultural tools and their various functions.

Vygotsky (1978) spoke of two kinds of tools, each with its own purposes and hence effects on human action. The first and most basic kind he described as technical. This is the one that interrupts the link between human perception and action by mediating it. Its main effect is thus oriented outwards; the tool influences the external environment of the user. Consider for example how a fork and knife remove the direct connection between mouth and steak; the action is fundamentally changed. By surrendering the tearing of the meat with one's own teeth to the hand and its tools, the person is now free to talk if he or she so wishes until the piece of meat is cut and ready to be transported to the mouth for chewing. The actual cutlery sets new possibilities or a wider range of options for achieving the goal of consuming a piece of meat and it allows food consumption to become an entirely new activity or experience. At the very least, the

technical tool then facilitates a physical process and acts as aid in solving an important

daily task or problem, at its most it alters action.

The second type of tool according to Vygotsky (1978) is symbolic or

psychological in nature. As the terms suggest, this tool is geared inwardly; that is, it

causes changes in the person that uses it. Indeed, with the use of language children also

affect the environment around them so in a sense one could say that due to its

communicative role, language also has outward effects. For instance, children can request

help from adults, recruit them in solving a problem, and as such it is important in meeting

practical daily tasks. But, with regards to this kind of tool, I am more interested in what

symbolic activity does for the child itself. I speak of an array of what are commonly

referred to in the cultural-historical fields as *signs*, such as art, counting systems,

drawings, writing, and the spoken word (Wertsch, 1998, p. 30). In Vygotsky's terms, the

symbol serves as a *functional barrier* (1978, p. 35) providing structure to human action.

The child no longer needs to rely solely on trying out every plausible option physically,

as done before; he/she can now contemplate such actions psychologically before enacting

them. Therefore, the sign has organizing and commanding applications for human action

(Vygotsky, 1978).

While these two types of tools are discussed separately for the purposes of

differentiating their main functions, they do not constitute two isolated forms of activity.

Vygotsky's work clearly emphasized the concept of interdependence across phenomena

including consciousness and human activity. Earlier in this chapter I delved into the

codependence of various mental functions. This principle holds true for tools as well.

Consider how we often rely on technical tools, like writing objects, in order to express

our message through the symbolic system of print. The distinction is used here to elucidate the general goals of each tool type and its effects on human action. In the end, all tools are likewise characterized by their mediating function whether they are symbolic or technical (Wertsch, 1998). The fact remains that the convergence of technical and symbolic activity forms the basis for the complex forms of behavior (Vygotsky, 1978) that interest me.

Speaking of commonality across tools, a few other points must be addressed. First, tools have goals and purposes that need not match those of the user (Wertsch, 1998). They have purposes for which they were originally created, needs they are to serve, places to be employed, activities they are meant to facilitate. These statements are more readily comprehended if we touch on two aspects of cultural tools explained by Wertsch (1998): appropriation and mastery. Tools are picked up by individuals who may or may not use them for their set purposes. Individuals may decide to *appropriate* a tool, to make it their own. Regardless of such appropriation, the fact remains that the tool continues to reflect the institutions, environments, and people who created it (Wertsch, 1991). It will preserve an array of inherent properties that could present possibilities and limitations to its user. In this regard, Wertsch (1998) introduces the concept of *mastery*. He defines it as the level to which a person masters a tool and knows how to use it. Is the particular tool, with its affordances and limitations, used skillfully or with difficulty? The fact that these two notions characterize the relationship between person and tool provide yet another reason why we must frame consciousness and human growth in cultural-historical terms. The notions of appropriation and mastery reflect the *tension* (Wertsch,

1998) that exists between the human being and the tools used to advance the self, interact with others, participate in culture, and manipulate the environment.

One caveat is needed to further clarify how cultural tools are taken up by the individual. Sociocultural and dialogically minded scholars (Fernyhough, 2008; Linell, 2009; Wertsch, 1998; Zinchenko, 1995) adopt to varying degrees the notion of *internalization* employed by Vygotsky (1978). A main point of contention relates to what they (Linell, 2009; Wertsch, 1998) claim is a monologist assumption underlying the intra/inter distinction. They argue that internalization suggests divisions between mind/body and individual/society neither of which reflect the dynamicity of this process. On the contrary, Fernyhough (2008) claims that Vygotsky's approach is richer than assimilationist and information processing models plaguing psychology. Meanwhile, Zinchenko (1995) offers another useful defense through an explanation of the internalization process as one where what is internalized is "the sign-related (i.e., ideal) properties and procedures for using these properties" (p. 45). In brief, this dissertation takes a middle ground and supports internalization as a sensitive process for explaining social learning generally speaking (including that of cultural tools) while contemplating appropriation and mastery as useful constructs that highlight the agentive view of the individual.

The unit of analysis: Mediated action. When we speak of the subject of cultural-historical study, we do not mean the traditional individual that permeates psychological work, the universally and biologically endowed being. Our subject is deeply entrenched in social interaction and culture; its actions are directly linked to the access to and experience with cultural tools (including language) and participation in

specific kinds of social interaction. The conglomerate of this cultural history becomes the source from which each human being uniquely internalizes and appropriates culture. In a sense, the subject of cultural-historical research is shaped by the environment in two ways: (a) by virtue of this notion of internalization where culture is taken from "out there" to "in here" and (b) also because even when re-appropriated, a cultural tool preserves the nuances of the context that gave it birth, of its history. Thus, the unit of analysis in this work is more accurately described as *individual-operating-with-mediational-means* (Wertsch, Tulviste, & Hagstrom, 1993 as cited in Wertsch, Del Rio, & Alvarez, 1995, p. 26). Next I define the various components of this unit, specifically the agent, context, action, and mediational tool.

The focus on the agent *in* culture is also emphasized by the primacy of *action* instead of *behavior* as the phenomena to be described and analyzed (Wertsch et al., 1995). As sociocultural psychologists have noted, action is a more appropriate designation because it denotes the agentive nature of the subject and it serves as the intentional counterpart to behavior (Bruner, 1990 as cited in Wertsch et al., 1995, p. 11). I have alluded to an agentive subject on multiple occasions already, particularly when mentioning Vygotsky's take on freedom as a major human goal and when discussing that tool usage is not assimilated but appropriated. As a matter of fact, tool usage is a premier example of agency as it shows the human tendency to resist its natural surroundings by seeking new stimuli to change and control it (Stetsenko, 2004). Human agency is also evident when we address a key point regarding the properties of tools in general: Despite their important role in human consciousness, tools are powerless without an agent (Wertsch, 1998). In the absence of an ear for the spoken word or a hand to wield a stick,

tools are useless objects. It is the agent who appropriates tools, who willfully uses them to meet his or her ends, who in Bakhtin's view of the *utterance* permeates them with a *voice* (Bakhtin, 1981). The point I wish to emphasize here is that the word always expresses the subject's consciousness (Bakhtin, 1981) or point of view; it is augmented by his/her overtones. The emphasis on the agent was also highlighted by Vygotsky (1987d) when, in speaking of the word, he chose to call it *the living phrase* (p. 281) since in his view it is always accompanied by a thought or a *subtext* from the speaker.

Earlier in this chapter I brushed on local and larger culture as the locus of consciousness and I return again to this idea. Since every human being has a cultural kit that emerges from a history of experiences, social interaction, and participation in institutional settings, I believe there is much to be explored in regards to what various cultural arrangements can do for human action. Wertsch (1991) for instance claims that there's a need to identify *institutionally situated activity* to determine how its appropriation may result in specific forms of mediated action in the agent (loc. 900). He further argues that Vygotsky's latest work (i.e., concept development in relation to speech genres occurring in educational settings) is a fine example of the connection between institution and action. Much like cultural tools and mental functions, action is likewise a part of the individual and a part of the social system (Wertsch, 1991).

When I refer to action, I do not imply a singular event; instead, I imply a plural noun more accurately understood as *moments of action* (Wertsch, 1998) situated in different settings with diverse cultural tools and social arrangements. It is the exploration of multiple such moments which provides insight into the integrated phenomenon under study: human activity. This focus on activity as *performance* instead of *competence* helps

us stay away from unsound assumptions about individual intellect. As mentioned earlier, we may conversely consider the agent's mastery of an action (Wertsch, 1998). Since to understand action, we must consider the mediators of that the agent with intentions and goals, as well as the context, and tools involved, action could thus be described as flexible, changing, and modified by external and internal stimuli.

In order to document or describe action, we have to account for the symbolic and technical tools that mediate the act. Since tools emerge from a place with its own history, tools in this view have a kind of materiality, understood as distinguishing features or properties (Wertsch, 1998). We must therefore explore whether subject's activity is facilitated or hindered by the tool at hand. Remember that we are able to embark in such analysis because we are studying various moments or instances of action. Although some theorists like Vygotsky focused on the empowering aspect of tools (i.e., how they may move consciousness forward), others have endorsed more conservative views. Wertsch, for instance, posits that tool usage requires experience and correspondingly suggests that their properties may also present constraints on human action (Wertsch, 1998). In a sense, the cultural tool is what sets the stage and the standard for the agent's performance; meaning that under low levels of mastery the tool may actually set limits (Wertsch et al., 1995). The same is the case for situations where the agent is resistant to a particular tool: The action may not faithfully reflect the agent's knowledge or reasoning (Wertsch, 1998).

Mediation: The symbolic in human action and consciousness. The notion of mediation is at the core of the sociocultural agenda and it extends beyond the observation of visible human action to explain the somewhat less visible aspects of human consciousness as well (Wertsch et al., 1995). It is thus fitting to claim that almost all

activity—including that of consciousness—is mediated, albeit as I explain below, by distinct phenomena (Wertsch, 1998). I target this idea next, relying mostly on one of Vygotsky's largest contributions: his theorizing on the relationship between thinking and speech. Previous to his work in this regard, thought and speech had been largely considered to be independent phenomena; in other words, sign-using activity was not deemed of any importance to mental functioning or consciousness (Vygotsky, 1978). In fact, speech was simply seen as an outcome of human intellect, a result of the organically endowed mind (Vygotsky, 1978). In contrast, the consciousness that Vygotsky set forth is brought about by the particularities of cultural experience; it is composed of several changing interconnected systems rather than biological ones, and has mediational qualities.

The transformation of consciousness from its organic psychomotor form to the higher psychological one was largely explained by Vygotsky (1978) through the construct of internalization of symbolic tools into the thinking process. Simply put, the introduction of a new tool like language causes an imbalance in the mental structure, which results in changes to the different mental functions and conversely "a new instrumental act" (Vygotsky 1981 as cited in, Wertsch et al., 1995, p. 63). For this reason, the observation of human action can be taken as window into the hidden conglomerate of consciousness (Wertsch et al., 1995). Indeed, Vygotsky focused extensively on children's changing activity as illustrative of their consciousness and specifically their thinking.

He claimed that in its earlier forms, the child's activity was characterized by direct manipulation of external stimuli. This kind of activity that relies on the child's vision and motor skills (i.e., hand) is exemplary of the child's *technical thinking*: a form

of action that relies on biological givens to manipulate objects (Vygotsky, 1978). This type of thinking is also exemplified by the child's non-verbal interaction with others (e.g., pointing) and seemingly purposeless work with tools, which leads to the label of practical activity (Vygotsky, 1978). I am more interested, however, in the later intellectual stages when symbolic tools enter the equation and drastically shape thinking and action.

As children continue to pursue the goal of interacting with others, they acquire *social speech*: the process that uses words or language to mean and communicate with others (Vygotsky, 1978). Social speech could be said to hold mainly an interpersonal function. For example, it helps children request aid from others to solve daily tasks. Speech nonetheless, cannot be supported by the mental structures that promote technical thinking—that is, the optical structure characteristic of instrumental thinking, since this kind of thinking occurs even before speech (Vygotsky, 2004/1999). New mental structures like *verbal thinking* must emerge to fill this void. Verbal thinking represents the moment when the two so-called independent paths of thought and word meet: Thinking becomes verbal and speech intellectual (Vygotsky, 1987b). Somewhere along this period, there is a shift to an intermediate stage known as *egocentric speech*. At this point, speech plays a role in the child's activity too. It comes to accompany his/her actions and directly reflects the child's difficulties with a task and its tools; this speech is described by some as emotional speech (Vygotsky, 1978). Despite the presence of egocentric speech, the child's actions are still ruled by direct manipulation.

Vygotsky (1978) argues that speech comes to show its greatest potential when it takes a turn inwards, that is, when it assumes an intrapersonal function. The traces of *inner speech* can be observed as speech comes to the front and center of the activity, it no

longer accompanies action, it precedes it (Vygotsky, 1978). Instead of engaging in disorderly and direct manipulation of his/her surroundings, the child uses a psychological process to execute a covert plan of action and relies on self-generated stimuli not on external tools (Vygotsky, 1978). The child starts to apply to himself what others would to him/her; in a sense the child is now subject and object of his own behavior thanks to speech (Vygotsky, 1978).

While a thorough overview of the phenomena of speech is beyond the focus of the present chapter, a few points are of major importance to this study: (a) the functions of speech are varying and changing; (b) speech causes immense changes to the structure of consciousness; and (c) it has powerful effects on activity, including that which incorporates technical tools. It is also important to clarify that Vygotsky did not delineate clear cut stages of speech; instead he focused on how the various roles of speech caused changes to the internal and external activities of the child that extended through adolescence and adulthood. He claimed that by observing action we could glimpse at the child's consciousness. Further, we must not forget that as one function of consciousness like emotions and thought, speech is a process mediated by symbolic activity, specifically the word.

Meaning making: Symbolic activity and generalization. Vygotsky set as a main goal of human action to make meaning for the self and reach understanding with others, what Bruner referred to as "the quest for meaning within culture" (Bruner, 1990, p. 20). Regardless of which of these two aspects of meaning making we address (i.e., the subject's or the collective), the fact remains that symbolic tools make each process possible. As Dyson (1989) remarks in her observations of kindergartners and first

graders, children use the symbolic to "organize their understanding of their world and to forge links with each other" (xvi). Beyond using language as I have mentioned so far—to request someone's help and to participate of social groups in a type of communicative role—social interaction reflects the human desire to share a perspective and consciousness with others: i.e., to mean (Trevarthen, 2009). Children use symbolic tools for more than just participation in the local culture and its institutional settings. Language allows them to relate to others in a variety of roles (e.g., siblings, students, peers, friends); it has a true social function.

This genuine social function of language, this attempt to achieve making meaning is mediated by factors beyond the symbolic tool. The word is indeed key in augmenting individual mental functions and generating the interfunctional connections needed for social speech and verbal thinking: The sign is the basis on which the construction of the rest depends (Vygotsky, 2004/1997). It is however, not the end point. Vygotsky (1987d) explains that thought and language are two very different phenomena with no smooth or direct connection, and while we often simplify their merging through the constructs of verbal thinking and its subtypes like internal speech, the reality is another:

> The transition from thought to speech is an extremely complex process which involves the partitioning of the thought and its recreation in words. This is why the thought does not correspond with the word, why it doesn't even correspond with the word meanings in which it is expressed. The path from thought to word lies through meaning…. The direct transition from thought to word is impossible. The construction of a complex path is always required. (Vygotsky, 1987d, pp. 281)

He explicates that thought captures signification altogether as one unified whole (Bruner, 2004). Thinking relies on meaning as mediator, or as a process if you will, to produce the product of the word (Vygotsky, 1987c). Conversely, language expresses thought in individual words configured in varying arrangements and does so sequentially; in other words, thought is parsed out in language (Bruner, 2004). Rieber (2004) adds strength to the argument that all activity is mediated by claiming that "social interaction is impossible without signs…[and] without meaning" (p. 30). Even when the symbolic tool needed to interact with others is mastered, in order *to mean* we must be able to take our thoughts, emotions, and goals and express them in generalized terms (Vygotsky 1934a as cited in Wertsch, 1991). For social interaction to be successful, for children to truly and completely *get across to* others, they must have a grasp on the conscious aspects of their thoughts (Vygotsky, 1987d). Their words will need to capture this understanding and help convey it as a generalized reality or concept related to phenomena, to classes, or groups that would be accessible to others (Rieber, 2004). The merging of thought and sign to form generalizations that achieve the social function of meaning making are illustrative of what Vygotsky meant in the above quote "a complex path is always required". The child's word can thus be considered a product, a type of action to be explored, as exemplary of true thinking (Vygotsky, 1987c). Speech and thought with their different mediators converge to process psychological content and produce utterances that others can understand in an effort to maintain social contact with others.

The main purpose of this third section has been to specify target terminology for the remainder of the dissertation and describe the unit of analysis: a task of outmost

necessity in a cross-disciplinary and multi-methods' study. As a kind of review, the

cultural-historical framework conceptualizes consciousness as interfunctional, changing,

sociocultural, and mediated. It posits that culture is the context for social interaction at

local and larger levels and the locus for the cultural tools needed to sustain such

interaction. The internalization of cultural tools, specifically symbolic ones, is

responsible for causing changes to the mental structure that are key in framing human

consciousness and action in ways that bring them closer to the goal of making meaning.

In the next chapter, I proceed to position the study within relevant and current cross-

disciplinary work in order to elucidate the study's main contributions.

CHAPTER 2. LITERATURE REVIEW

This chapter reviews the literature relevant to this study integrating theory and empirical work from across various fields in order to frame this interdisciplinary mixed methods dissertation. I start with an overview of the field of literacy and language to emphasize the importance of their situatedness, ideological baggage, and embodiment. To do this, I draw from the work of socioculturally oriented literacy and language scholars in the fields of the New Literacy Studies. Then, I introduce the phenomenon of social understanding drawing mostly from psychological work on the child's Theory of Mind. I stress that social understanding is linked to children's daily lives in general. I conclude by making a case for the study of vicarious social understanding, i.e., social imagination, via reading events, which are discussed as a kind of social interaction by virtue of being inherently transactional and dialogic.

Literacy in the Era of Autonomous Skills

A researcher's view of literacy has important reverberations for how investigations are conducted and to the kinds of interpretations that are made from data. Past and current movements in the literacy field evidence this statement. In its earlier decades, the field of literacy was characterized by the study of a specific and narrow set of *basic skills* (Dyson, 2004, as cited in Siegel, 2006): reading, writing, and arithmetic (Olson, 1994). These skills were meant to prepare every child to learn further specialized

subject matter in schools. Anthropological work followed suit with a similar emphasis on print while seeking to interpret what it meant to be literate or civilized (Gee, 1986). Anthropologists and literacy researchers studying cultures around the globe concluded that oral cultures were to some extent illiterate because they did not conform to this definition of literacy as focused on systems of notation (Gee, 1986; Olson, 1994).

In his attempt to *demythologize[e] literacy*, Olson (1994) argued that these perceptions of cultural inferiority were also strengthened by psychological research targeting reasoning ability in diverse cultures. He states that their instruments relied on limited response formats, specifically syllogistic exercises, which did not resemble the kinds of literacy practices enacted in oral cultures. Not surprisingly the subjects did not display the levels of abstract reasoning and linguistic explicitness targeted by the researchers. Olson explains that these tests relied on the subject's understanding of premised-based reasoning and measured skills solely in experimental contexts and on an individual basis.

The strict focus of schooling on these basic skills coupled with the scientific findings of anthropological and psychological work around the globe, helped cement the notion that print-based languages were the phenomena that contributed to the kinds of higher thinking displayed by modern cultures. Notwithstanding, psychologists and educational researchers alike questioned the notion that print or alphabet based languages were solely responsible for this cognitive gain. Scribner and Cole's (1981) work fueled this inquiry when among a series of conditions they identified schooling as the most influential factor. They concluded that schooling encouraged premise-based and logical reasoning, as well verbal exposition, such as talking about subjects and justifying

answers. This brought attention to the fact that previous research on literate ability and reasoning used the subject's form of expression or response type to infer a pattern of thought (Olson, 1994) and that their measures actually "tested the ability to use language a certain way" (Gee, 1986, p. 731). Literacy researchers contemplated the idea that these so called superior modern cultures shared other common denominators too, like the privileging of literate discourse between adults and children, established systems of formal literacy (i.e., schools), and top-down national guidelines that delineated what children needed to know in order to succeed in society. In other words, they considered that the uses and functions of literacy may be important.

Literacy experts (Street, 1994) criticized *schooled literacy,* for endorsing earlier stages where literacy was considered a reflection of intellectual capacity. Setting aside the idea of universal literacy, the questions became: How are people using literacies in homes? communities? cultures? This kind of inquiry on what were labeled *vernacular literacy*, i.e., the literate practices that represent specific communities and groups and stands in contrast two those of the elite and those of schooled literacy, and *local literacies* (the ones in tandem with national policies) helped consolidate the existence of a plethora of literacies (Street, 1994). Literacy, as they would find, was not autonomous and most certainly was not neutral.

The Social Turn and New Literacies

This dissertation is aligned with a model of literacy anchored in current understandings of literacy as plural—not limited to a few skills to be tested individually and apart from one another—and as the result of interacting processes in different spheres (Collins & Street, 2014). In this section, I focus on two aspects of a later literacy

paradigm The New Literacies (from here on NLS): (a) literacies as situated (Purcell-Gates, Anderson Gagne, Jang, Lenters & McTavish, 2012), bound to sociocultural processes and extending beyond print (Moje, Luke, Davies, & Street, 2009; Rowsell & Pahl, 2011; Street, 2012; The New London Group, 2013), and (b) literacy learning and teaching as ideological work (Bloome, Avery, Hill, Ryu, 2014; Street, 2003). I focus on these qualities next.

Situated. Situated literacies are literacies in use (Gee, 2001). The goal in this view is not to consider what the child is capable of doing as an individual accomplishment because no one is born talking, reading, writing, drawing or texting. These skills are always learned alongside more knowledgeable others through social interaction, as Vygotsky's (1978) notion of internalization has suggested. As a result, situated literacy is concerned with documenting the social spaces individuals occupy. Social spaces must not be understood as solely physical contexts with multiple speakers present. All language use, including reading practices and writing styles, which may well seem like individual acts, are a kind of social activity (Fernyhough, 2008; Linell, 2002). Whether we read a book by a secluded beach cove or sit at the dinner table with pen and paper after everyone else has gone to bed, we are never truly alone when we practice literacy or use language.

This argument owes much to the work of Bakhtin, which has influenced NLS immensely (Gee, 1999). Bakhtin was emphatically against notions of language existing objectively and outside of a context. He opposed the study of language as an atomistic text, a perception which characterized traditional linguistic work (Bakhtin, 1981). Language in his view was ever picked up through interaction and in spaces with their

own *speech genres* or kinds of language that typify social situations (Bakhtin, 1981). The social fiber of language in Bakhtin's account stemmed from dialogic principles. Dialogism presupposes that one's words are never truly his/her creation or property; these words were once someone else's. Consequently, the speaker's utterances are infused with the individual's and everyone else's voices making the 'individual' act a social one. The word is also social in another sense. Speakers and writers always have a physical or imagined audience in mind, communication must rely on a kind of *addressivity* to be effective. When we speak and when we write—as I happen to be doing right now—we consider our audience and we actively shift our words with the goal of communicating. In a way, even while alone in my office, I am in conversation with you (my audience) while drawing from the voices of others like Gee, Vygotsky, and Bakhtin to express my understanding of language's social nature, anticipating how my words may influence your response.

Scholars have reached out of school grounds to explore every day social spaces to further understand literacies in use. Work in the related fields of family literacies (Compton-Lilly, 2007; Compton-Lilly & Gregory, 2013; Valdés, 1996) and parental involvement with Latinos in the US (Galindo & Medina, 2009; Gillanders & Jiménez, 2004) has made important contributions in this regard. Its proponents have advocated for literacies as varying, malleable, and reflective of the places that engender them and the purposes for which they are used. They have described literacies as grounded in a complex web of factors, including demographics such as socioeconomic means and phenotypic markers like ethnicity. In addition, they claim that literacies are linked to cultural beliefs about literacy and purposes for obtaining an education. Situated literacy

work is needed to account for the layers that influence how literacies are enacted in diverse communities. I emphasize here work with Latino groups because they share common experiences with my target population (i.e., Puerto Ricans), including among them their Hispanic background and documented oral practices (Bastos, 1987).

When we speak of literacy *in situ*, we must also account for the technologies and tools that make communication possible and meaningful in these spaces. We must return to the idea that human action is always mediated by symbolic and technical tools. Serious consideration of a multiplicity of artifacts and modes of expression has expanded the earlier view of a literate being as someone who reads and writes. The individual is now also an "agent… [and] inventor of literate practice," (Moje et al., 2009, p. 416), a creator of texts who uses various "channels or modes of expression" to mean and interact (Rowsell & Pahl, 2011, p. 179). Substantiating this renewed perception is Dyson's (1989) reference to children's as *symbolizers* and Arizpe and Styles' (2005) conceptualization of children as makers of meaning. We would learn a lot more about children's capacities to mean and use symbolic tools if we looked beyond the capacity to decode and encode print as main indicator of literacy.

As alluded to in the earlier reference to oral cultures, cultural groups vary on the extent to which they rely on the written word to interact and get by on a daily basis. They are exposed to and wield different symbolic systems (e.g., writing, drawing, music) in the everyday with each one relying on particular features to express meaning (Kress & van Leeuwen, 2006). For example, drawings use lines and spacing to convey an idea, writing relies on syntax and semantics, and the spoken word incorporates gestures, intonation, proximity and visual contact. The features of different symbolic systems are at the same

time facilitated by the use of a specific medium such as pens, cell phones, and computers. Despite the large contributions made by the NLS, the current literacy landscape in schools still capitalizes on alphabetic print (Kress & van Leeuwen, 2006) as the symbolic system whose conventions we must master in order to become skilled workers and citizens. Whereas others like the spoken word and images may be a part of its practices, they do not receive the same attention (Kress & van Leeuwen, 2006). While a teacher may respond to a child's drawing with a "Mary, I love what you did here!," a child's reading will receive specific feedback regarding fluency, accuracy, and pronunciation.

Scholars of the NLS, key on school culture and social interaction as spaces where we learn to recognize and interpret symbols (Hassett & Curwood, 2009 using Dyson 1993). Just like one learns linguistic structures and masters certain combinations of words and letters through experience, children learn that visual structures and particular configurations of visual features suggest statements or meanings (Kress & van Leeuwen, 2006). These structures must be picked up by the reader on the basis of his/her experiences so that meaning can be achieved. While I do not pursue a semiotic or multimodal approach in this dissertation due to time constraints, a discussion of the affordances of picturebooks and visual narratives would not be possible without it, since this scholarship has deeply influenced the NLS. In addition, the situated perspective is essential due to the fact that Vygotsky's work centered mostly on the written letter and spoken word. Thirdly, it is necessary because children's lives outside of school are already highly symbolic thanks to the proliferation of media and technology. For them, multiple modes coexist in the same page, in one activity. As Arizpe and Styles (2005)

have mentioned we could learn a lot from young children's ways of looking, and I would add meaning too, because they are less constrained by literate conventions set by schools.

Because exposure to and experience with symbolic systems is of such importance to their appropriation, scholars have stressed the need to document children's opportunities to use symbolic tools in social spaces like schools (Dyson, 1989). They suggest observing which symbols are privileged in classrooms and which features are subject to formal teaching. Literacy researchers have stressed that formal instruction of symbolic systems and their resources for meaning making influence children's own products (Hassett & Curwood, 2009; Martínez-Roldán & Newcomer, 2011). The literacy practices and symbolic systems that teachers encourage in the classroom have important consequences on the symbolic tools that children pick up.

Ideological. While the above historical overview is in no way meant to capture all the transformations undergone in the literacy field over the years, it is needed to set up one last vital aspect of the social turn in literacies, the argument that the teaching, learning, and study of literacy is ideological work. The appreciation of what groups do and know is filtered through conscious and unconscious biases from literacy researchers (Moje et al., 2009) and educators (Hamel, Shaw, & Smith Taylor, 2013). It is framed by directives from government officials, educational groups, and other dominant institutions (Bloome et al., 2014). Current standardized school curricula in the US like the Common Core (Dyson, 2015) and educational reform like No Child Left Behind help substantiate this model and are also its symptom. The current panorama is defined by measurement-driven instruction (Cobb, 2011) and evaluative tools that leave much of value untested and present bits and pieces of literacy (Ravitch, 2010).

The prevalent emphasis on measuring isolated skills and on reaching end-points (Purcell-Gates et al., 2012) reiterates the belief that literacy develops linearly (Dyson, 2015) and leads to competence (Bloome et al., 2014). Contrary to the meaningful reorientation of the literacy field in the past decades, formal literacy learning is still defined as encompassing discrete reading and writing events (Street, 2013). It is this limiting iteration of literacy that continues to be imposed over vernacular others perpetuating in this way literacy's perennial colonial purpose where the literate practices of a powerful few are turned into a type of currency everyone must possess and employ if they are to succeed in the academic and professional worlds (Bloome et al., 2014). The *colonizing practices* (Tierney, 2014) of this model are problematic for various reasons.

Colonial practices deny individuals and communities the opportunity for self-determination, for defining the ways in which they practice literacy. It disregards the epistemologies that make these groups knowledgeable people and thus robs them of their agency. As Dyson (2015) rightfully argues the flexibility, agency, and imagination of diverse children do not have a place in institutional assessments of literacy. The focus is not on what *children can do* but on how well they execute particular skills and discourses. Classroom culture has its own forms of social interaction and may present new situations for language use, which may conversely pose demands on children, especially diverse children. Children may need to learn pragmatic aspects such as appropriate response cues and turn-taking in order to participate in classroom routines and to establish rapport with the teacher and his/her peers (Milligan et al., 2007). Delpit (1988) suggested that classroom codes and discourses may be foreign to many diverse children. Further, they may be required to use symbolic systems with which they have

varying familiarity. Short, Kauffman, and Kahn (2000) rightfully argued that children cannot be expert users of every symbol out there. As a last example, children may engage with novel artifacts, such as the middle and upper class staple: the story book. The colonial impetus lives in classroom culture with its own particular social arrangements, focus on language and modes, and preferred artifacts.

Whilst this universal currency may well be quite handy for meeting the requirements of uniformity expected in schools, this version of literacy may not resemble what diverse individuals do in the everyday. There is little evidence that this kind of literacy has helped improve the lives of diverse groups or that it results in mobility (Bloome et al., 2014; Gee, 1986). In the US, we have witnessed centuries of this pervasive model that seeks to homogenize: making the native savages literate (meaning Christian and docile), teaching various waves of immigrants the ways of American culture, and bringing compulsory formal schooling, federal mandates from the US, and English language education to Puerto Rico.

As these examples suggest, whether we speak of the native, the immigrant, the spoils of war, or the schooling of the nation's children, one thing is clear: The real goals of the colonial model of literacy are to exclude some, establish a standard to which everyone must aspire, and preserve the privileges and ways of life of dominant groups (Tierney, 2014). We must take a critical stance that considers issues of how learners are positioned (Moje et al., 2009). The idealized literate being they promote is nothing more than a persistent construct that perpetuates the erasure of diverse children's strengths while promoting a notion of difference, cementing a deficit view (Dyson, 2015), and setting up determinist models of literacy (Collins & Street, 2014). By targeting some

skills and devaluing other practices, every component and actor in this system sets forth peculiar definitions of what it means to be literate and intelligent. The literate being in this view, however, seldom wears dark skin tones, hardly speaks a language other than English, and rarely emerges from poor neighborhoods. The ripples of these notions of difference, deficit, and determinism (which in fact would make for a catchy new acronym: the three DDDs) are evident when individuals with generations of rich life experiences and literate practices are reduced to a phenotypic marker in the eyes of those in power, nothing more.

Literacy: The shortcomings

The social turn in the field helped established literacy and language as part and parcel of learning the ways of a culture, including how to mean (Short et al., 2000). Further, it highlighted that literacy and language are phenomena that sustain social stratification (Bloome et. al., 2014) through the use of binaries like literate/illiterate. Nonetheless, while the *recent* epistemological diversity within this discipline is certainly advantageous for those of us working with children from diverse literate and linguistic backgrounds, its approach is lacking in many ways.

To sum this argument thus far, this dissertation stands against normative assumptions of what it means to be literate and a speaker of a language. Literacy for my purposes is not equated with intelligence or autonomous skills; it is instead situated in the midst of spaces that individuals occupy and the available tools that make every day experiences possible. My goal in the next section is to make a case for literacy and language as influences on cognition and the human capacity to function socially in the world.

Social Understanding in Children's Lives

Social understanding, a field concerned with children's understanding of others and human behavior, (Dunn, 1988 in Carpendale and Lewis, 2004) is among the most important aspects of child development (Fenning et al., 2011). It is foundational for establishing successful interpersonal relationships (Astington & Edward, 2010; Fenning et al., 2011) and participating in social contexts (Forrester, 1992). Social understanding is viewed here as developing gradually from children's shared practices in the everyday (Carpendale & Lewis, 2004) and discussed from the starting point of social-environmental influences (Fernyhough, 2008).

Family life is one such important social influence during the early years (Carpendale & Lewis, 2004). Children's success on tests of related social-cognitive skills has been linked to different kinds of home interaction. Some positively powerful mother-child interactions include pretend play where mothers address children's thoughts and feelings (Meins et al., 2013), talk accompanying story book reading where mothers discuss character's motivations and goals encouraging their kids to do the same (Astington & Edward, 2010), and parent-child reminiscing on negative experiences (Fenning et al., 2011). This is one way in which parents demonstrate *mindmindedness*, they draw their children's attention to the psychological world and view their children as mental beings (Carpendale & Lewis, 2004).

Another important aspect of home-life is the sensitivity with which parents and siblings guide young ones (Fenning et al., 2011). The focus on the quality of these interactions is highlighted by the growing interest on parental styles (Carpendale & Lewis, 2004), including among them another dimension of mind-mindedness. *Mind-*

minded mothers tend to tailor interaction to their child's linguistic and maturational level in an effort to make exchanges accessible to them (Fernyhough, 2008). Interaction where children receive appropriate coaching during meaningful activities, such as play, book reading, informal conversations, and home tutoring is linked to positive gains in social understanding that prepare children for social activity in other forums.

Researchers have found significant connections between home environments and children's social competence in schools. In studying this link, Fenning et al., (2011) gathered ratings of social understanding from parents and teachers. They found that children described by their parents as socially competent also received teacher ratings designating them as more prosocial—that is, displaying cooperativeness, willingness to share, and sensitivity to peers in distress. In a similar vein, Denham, Renwick, and Holt (1991) noted that the extent to which mothers supported the child by providing a structure during experimental problem solving tasks predicted the teacher's rating of the child's social competence. These studies suggest that there are connections between children's early social activity and their social interaction with others outside the home.

Support for the argument that social understanding influences children's lives comes from studies on children's activity in a variety of conditions. This research has shown that children's immature social skills correlate with teachers' reports of those less likely to share and help others, children who demonstrate asocial or withdrawn behavior (Fernández, 2007). Beyond adult reports, this research has also explored children's social understanding across experimental and everyday tasks. Astington and Jenkins (1999) reported that children with developed social competence engaged in higher levels of play with their classmates. These children were more likely to assign roles to others, to

themselves, and to propose scenarios that involved multiple partners in concert. For instance, the child would say something like *I am the mom and you are the baby* and would actually follow through the imaginary relationship. Briefly put, children's capacity to relate to their peers and teachers seems to reflect their independent competence in tests of discrete social skills.

In general, research targeting home interaction, parental styles, and classroom activity suggests that children are discerned by the actions they display or fail to enact, and more specifically in terms of how they partake in social activity. This research reveals that participation in early social interaction sets a foundation that facilitates their current and prospect functioning (Fenning et al., 2011; Forrester, 1992). It also demonstrates that social understanding is of large importance in children's lives because their participation in social activity is constantly noted by influential others, such as teachers, and reflected in experimental tasks. While none would dispute that social-environmental factors play a role in social understanding, there are complementary accounts that delve on what may be at the core of this relationship. One key argument is that social interaction provides children with a growing knowledge of social situations leading to the development of mental constructs that aid children in social situations.

The Theory of Mind insight. A main cognitive account on social understanding comes from the Theory of Mind (ToM) scholarship, qualified by some as "the most important development in early childhood social cognition" (Astington & Edward, 2010). ToM exponents claim that developing an understanding of the mind and of others as mental agents is at the core of social understanding. They argue that the child is biologically endowed to develop a ToM (Carpendale & Lewis, 2004; Mercer, 2013) and

discuss the attainment of this conceptual understanding mainly as an individual

achievement. For instance, they posit that when confronted with a social situation the

child looks inward to test the current situation against his/her developing theory of the

human mind, to see what they would do, or how they would feel if they were that person.

Within ToM, social situations provide a kind of input but the knowledge that matters for

experimental purposes resides in the child.

They focus on explaining how the child develops an understanding of the

psychological world (Carpendale & Lewis, 2004). A main query in the ToM work is:

How does the child move from the intuitive awareness afforded by biological

mechanisms and starts to contemplate mind reflectively? (Astington & Edward, 2010).

The child's most pressing problem is not to make sense of social situations but "to figure

out what is going on in the private and hidden realms of other minds" (Carpendale &

Lewis, 2004). Consequently, ToM can be said to be mentalistic in two ways: by

designating the child's cognition as the starting point and by establishing as its main goal

deciphering other minds. Its key methods also reflect this mentalistic orientation, ToM

relies mainly on experimental measures to determine children's conceptual and

representational knowledge (Astington & Jenkins, 1995). These measures settle whether

children have a grasp on the fact that mental states like beliefs, knowledge, emotions, and

intentions guide human action (Astington, 2001).

The premier test of ToM is the false belief task (Moll & Meltzoff, 2011). The goal

of the false belief task is to see if the child depends on his or her own

perspective/knowledge of the situation or if he or she is able to consider someone else's.

In this task, children are typically placed in a stimulus situation where someone else (i.e.,

parent, experimenter, gismo, puppet, or book character) has another vantage point (Moll & Meltzoff, 2011) or a missing piece of information known only by the child (Milligan et al., 2007). The experimenter then asks a series of questions regarding the various actors and grants the child a point for each correct answer. If the child answers all the questions correctly, he or she is categorized as having reached an understanding of others as mental beings. This test supports the long-standing argument that cognitive views on social understanding focus on *epistemic states*—what is known or *true*—overshadowing *motivational states* like emotions and desires (Astington, 2001). This is precisely the test featured as indicator of social understanding in the vast literature reviewed in the previous heading.

 Linguistic competence and social understanding. Social interaction and psychological understandings of mind are featured here as complementary accounts on how children learn to mean and relate in the world (Carpendale & Lewis, 2004). Whether they focus primarily on social interaction or cognitive mechanisms, proponents of social understanding and ToM coincide in that social and cognitive activity is mediated by the symbolic.

 The mediating role of language in the interpersonal arena is perhaps the most widely acknowledged assumption. Children need language to communicate and pragmatic skills in order to approach and sustain social situations (Fernández, 2007; Milligan et al., 2007). The general literature on social understanding and ToM has emphasized the kinds of language input that are beneficial, including among them mental state language (Astington, 1998; Curenton, 2004; Guajardo & Watson, 2002; Miller, 2006; Pelletier & Astington, 2004; Symons, 2004). And it seems pretty simple: Children

must have a vocabulary base to grasp and express their thoughts, emotions, and goals (Nelson, 2010). In fact, this is one of the reasons why early social interaction with mind-minded parents is arguably so important. When children play, read books, and talk about their experiences, they are exposed to the language of mental states. Further, by working on their assignments with their parents (Fenning et al., 2011) and engaging in collaborative problem-solving with peers, children are introduced to "ways of using language for explaining and reasoning" (Mercer, 2013), discursive patterns if you will.

Many kinds of language—including pragmatics (Fernández, 2007; Milligan et al., 2007), mental state language (Astington, 1998; Curenton, 2004; Guajardo & Watson, 2002; Miller, 2006; Pelletier & Astington, 2004; Symons, 2004), and discourses for explaining answers—are needed to demonstrate social understanding in false belief tasks. Pragmatically, the child must be able to connect to the point of view of the actor in the task (e.g., gismo, puppet) while keeping track of the experimenter's statements. He or she must understand what is entailed by the mental state *think* when the experimenter asks: "What will Mary think is in the M&M box?" Further, he or she must master the syntax of sentential complements (Fernyhough, 2008; Milligan et al., 2007) to express his or her reasoning accordingly and be allotted a point: "She will think that there's chocolate/candy/M&Ms". We must not forget that this task is highly centered on knowledge of what is *true* and dependent on specific kinds of linguistic ability. Further, we cannot disregard the fact that our educational landscape has a historical proclivity to equate literate discourse with cognitive ability. Perhaps these are some good reasons for considering moving beyond one contrived task as sole indicator of social understanding.

Moreover, we must not overlook the established connections between ToM and language ability generally speaking and more specifically to semantics, receptive vocabulary, syntax (Miller, 2006), and clause embedding (Milligan et al., 2006). Correlational and experimental research has reported the birectional and interdependent nature of language ability and ToM (Astington & Jenkins, 1995; Miller, 2006). Meta-analyses have also revealed moderate to strong relationships between the components of language ability just mentioned and ToM, with a stronger effect in the direction from language ability to ToM (Milligan et al., 2006). This point was also stressed by Miller (2006) who argued that language ability is a better predictor in this coupling. In short, language has been addressed in the social understanding and ToM scholarship in terms of the kind of language input that will be most important to succeed in key experimental tasks and the developmental relationships between linguistic ability and ToM.

The internalization of language and dialogue. In wrapping up this discussion on social understanding I return to my cultural-historical framework to present a closing take on language, social interaction, and cognition. Language has a more important role than being a medium for accessing new information in social interaction (Astington, 1998; Carpendale & Lewis, 2004; Peterson & Slaughter, 2003) and acting as a symbolic tool for interpersonal communication, language is a "tool for thinking" (Short et al., p. 160).

Carpendale and Lewis (2004) provide some insight on this regard. They explain that when "children can talk about the social, emotional, and psychological world, they can begin to reflect on or think about people's activity in psychological terms" (p. 89). As we are able to talk about me and you with our thinking and feelings, we come closer to

having conceptual developments of me, you, thinking and feeling. This is not simply because talk about the mental world immediately translates to conceptual understanding but because intramental processes undergo transformation as language is internalized (Fernyhough, 2008).

Returning to what I mentioned in the "Introduction," the internalization of the symbolic alters the interconnections between various mental functions bringing about new processes and consequently new possibilities to the child's consciousness (Vygotsky, 1978). The child's thinking now mediated by a series of speech forms allows him or her to contemplate social situations beyond those physically and immediately present (Carpendale & Lewis, 2004; Fernyhough, 2008). This level of abstraction and reflection on the social world is one viable explanation for the transition from the intuitive understandings of mind with which the ToM literature argues we are born and to its more complex iterations (Astington & Edward, 2010). Through the internalization of speech and its corresponding changes on consciousness, we can remember and recreate social situations for the self.

In her review of Zittoun's work, Bertau (2007) provides the last piece to my puzzle on the interdependencies between semiotic resources and social understanding. As Bertau explains, the sign and the other are the conditions of becoming. In a borrowing from Vygotsky, she describes human consciousness in terms of the internalization of semioticity and alterity. She argues that we make meaning in the self through our encounters with others in different *spheres of experience* including physical and imaginary ones, like books, where language serves as semiotic mean to enter dialogue.

Fernyhough (2008) made similar claims in his dialogic thinking framework inspired by the work of Bakhtin and Vygotsky. He argued that social interaction is the place where children experience *dialogue*, which he defines as an activity involving more than one perspective mediated by signs. In his account, which runs counter to the psychologically-oriented ToM literature, what is internalized is not mental state terms or syntactic structures, but the dialogues themselves: other people's semiotically mediated perspectives. In Fernyhough's dialogic framework, children must represent their own perspective as well as the other's orientation at the same time in order to make meaning of a subject in dialogic exchange. This is one way in which human consciousness is based on alterity, the simultaneous consideration of multiple perspectives. With the help of speech, children reconstruct these perspectives in semiotically abbreviated terms in the internal plane. This complex permutation relies on cognitive flexibility and coordination, a kind of dialogic thinking of the self. At the same time, the constitutive power of semiotic resources—the capacity to create and stipulate social realities (Bruner, 1896)—is partly responsible for the kinds of higher order thinking (Vygotsky, 1978) needed for more nuanced social understanding.

A main contribution of a dialogic stance to psychological and cultural-historical iterations of social understanding is the attention to social interaction and the other as sources for co-construction (Linell, 2009). The dialogic view highlights that cognition results from interaction with the world, emphasizing in this way that we're not autonomous beings and our minds are social (Linell, 2009). In addition, its definition of dialogue as any space where semiotically mediated perspectives are present (Linell, 2009) and its emphasis on dialogic encounters as occurring in various spheres (e.g., out

there, in here, in physical and imaginary spaces), open the possibility for studying social

understanding in myriad contexts beyond the experimental setting that typifies ToM

scholarship.

Reading

In this last section, I address in more depth what makes reading events a type of

social interaction. Unlike ToM proponents, I do not limit the social activity of reading to

the exchanges occurring between the child and his or her reading partner, namely a mind-

minded parent. I also consider those between child-author, child-text, and child-

characters. I frame this argument through notions of reading as transactional activity and

storybooks as dialogic objects. Finally, I review some of the correlates between reading

events, cognition and social understanding, and propose picturebooks as one forum to

explore low SES children's social imagination, their capacity to relate and understand

vicarious others.

Reading as transactional. From the outset of this dissertation, I have made

reference to reading as a kind activity involving the entirety of the reader, including the

child's language ability (Rosenblatt, 2001), past social and relational histories (Lysaker,

2006), cultural experiences (Matthews & Cobb, 2005), and purposes for approaching and

using texts (Grabe, 2009). Earlier in this chapter, I argued that being literate and a reader

are about much more than demonstrating knowledge of print claiming instead that

making meaning in the world is a complex endeavor that calls upon children's linguistic,

cognitive, and relational capacities.

A transactional view on reading is useful to demonstrate said personal activity.

The reader and the text exist in a transactional relationship where the signs on the page

are met by the reader (Rosenblatt, 2008). Reading in this view is a two-way process where the text, understood as semiotic resources, is a co-participant (Rosenblatt 2009/1982). As Rosenblatt (2008) explains, reading is an event:

> Instead of two fixed entities acting on one another, the reader and the text are two aspects of a total dynamic situation. The "meaning" does not reside ready-made "in" the text or "in" the reader but happens or comes into being during the transaction between reader and text (p. 1369).

In bringing attention to reading as transactional, we are defining texts as objects from which meaning is to be made on the basis of the reader's attention to the page and their *linguistic-experiential reservoir* (Rosenblatt, 2008). In this transacting, readers undergo a process of extending and synthesizing their past experiences to make sense of the current one (Rosenblatt, 2008). Much like they would do in any other social interaction, they look for cues in the text to decipher how to approach the situation, making of reading a truly invested process. As a language event, literary texts unfold temporarily and require that readers adopt a position and prepare for what's forthcoming by selecting which aspects of the encounter to attend to and which aspects of their own consciousness to draw upon. The reader is constantly shifting his or her attention and in consequence influencing his or her response. Transacting with texts is one way to extend the linguistic-experiential reservoir, activate consciousness, and enhance the capacity to selectively draw from one's own knowledge of useful text features to interpret new social situations.

Storybooks as dialogic objects. Given that readers transact with a text that represents the author's selected configuration on a subject, one could rightfully say that

the reader-text transaction is also in a way a reader-author encounter. Beyond meeting the text and the author's semiotic arrangements so to speak, reading literary texts also allows children to interact with a larger set of vicarious others: the book characters. Since storybooks incorporate myriad others organized in semiotic units, storybooks comply with the basic requirements of a dialogic object (Bertau, 2007).

The dialogic stance offers an important insight to how the child's experiential-reservoir and cognition are extended during reading events: the internalization of characters' perspectives. To consider individual character's perspectives concurrently and in the same space, readers must establish connections across possibly conflicting positions, including their own. At the same time, the reader also nurtures a kind of cognitive flexibility via such simultaneous consideration. This flexibility allows him or her to engage in activity that comes quite close to what some would call advanced ToM (Arvelo & Lysaker, 2014).

Whereas the first level of ToM explained earlier consists of attributing mental states to others, second level ToM occurs when a person, or character in our case, is displayed as conscious of another character's state (Liddle & Nettle, 2006). For instance, in the statement "Mary felt bad for John," Mary is described as conscious of John's current situation and affected by it. The child reader is able to construct John's perspective and Mary's perspective at the same time to come up with his or her own interpretation of the larger social situation that involves the two. The reader has decided that John's state has an effect on Mary, establishing a relationship between them.

The dialogic stance strictly differs from the ToM frame in one important regard. It does not purport that children need to have conceptual knowledge of mental or epistemic

states to reach such understanding. In other words, characters' perspectives do not need to be *true* to reflect someone's voice or orientation towards a social situation (Fernyhough, 2008). Neither must perspectives explicitly include mental state language. Consider the statement "Mary turned away from John," we are still getting a sense of a relationship between characters and can infer much emotional baggage from Mary's action despite the absence of mentalistic language. As Fernyhough (2008) explains, this kind of knowledge though important is not a prerequisite to understanding other people's perspectives. What is important is the cognitive stretching provided by the internalization of dialogue and the consideration of multiple perspectives.

My main point here is that the cognitive selection that characterizes transactional activity and the cognitive flexibility resulting from dialogic encounters in imaginary spheres may be useful for children's general social interaction. When children encounter vicarious others through signs they rehearse *social imagination*: the capacity to access or attribute thoughts, feelings, and intentions to imaginary others (Lysaker & Miller, 2012; Lysaker et al., 2011). In this rehearsing, children enter the world of these others, sometimes inhabiting their perspectives (Lysaker & Miller, 2012). The relatively safer space of a reading event offers them a context for trying out important relational capacities (Lysaker & Miller, 2012).

Experiencing and making meaning of literary texts. As suggested by the current discussion on transactions and dialogicality, I am not invested in the traditional view of reading where children are evaluated in terms of whether they get it or not, such paradigms privilege the author, the text, and treat meaning as residing in the former. Nonetheless, such views of reading still inform early literacy work in schools and need to

be considered in exploring children's reading capacities. As such, they comprise a portion of this dissertation. Children in that view have one task only: to extract meaning or more accurately to decode the text. As I alluded to in the "Introduction," the focus on a skill's approach to reading has added to the dire image of the child from low means who is ostensibly lacking vocabulary, comprehension, and knowledge of print. I am more interested in reading as a social event that includes a multiplicity of ways to engage with text.

Allow me to return briefly to Rosenblatt's (2008) transactional view of reading and the argument that readers adopt a stance in a continuum extending from aesthetic to efferent. She defines the aesthetic reading as an orientation that allows readers to feel and live the text. She claims that those who read aesthetically savor the emotive pleasures of the reading experience. In contrast, those who read efferently approach the text logically targeting what must be remembered or recalled afterwards. She is not alone on claiming that the full range of reading is important to the kinds of person children turn out to be (Gregory, 2009).

In fact, a substantial amount of Sipe's (2002) work with young children dealt with embodied responses to literary texts, which he coined as exemplars of children's exuberance. Sipe drafted a series of categories where he catalogued children's verbal and physical actions as illustrative of *expressive engagement.* He captured the value of aesthetic reading when he said that "pleasure and engagement are so often forgotten in discussions about story reading and learning to read-as if these were bloodless skills rather than skillful ways of appreciating, loving, and being passionate about stories, ideas, and human experience" (Sipe, 2002, p. 482). Sipe, much like Rosenblatt, argued that

children respond to stories with their whole being not just by retaining narrative elements to be shared with a teacher and I would add researchers.

Another important consequent of this focus on children's responses is attention to the event or process not the end product. In responding to texts and engaging with them expressively children also embody the role of writers of their own texts. They take the print or visual signs on the page and turn them into verbal ones. This activity of taking one's response from one sign system to another reflects one of meaning's main qualities: its generativity (Siegel, 2006). *Transmediation* is not important because children must translate their meaning to another system but because this process results in its adjustment and enlargement (Short et al., 2000; Siegel, 2006).

Their responses often are also fueled by more immediate social goals. Children use symbolic tools to forge ties with their peers and to partake of the important social world offered by childhood (Dyson, 2015). Using symbolic tools is partly an exploration and largely an act of expression and connection with others (Dyson, 1989). In his analysis of children's engagement during story read-alouds, Sipe (2002) coined the term *inserting oneself (or friends) in the story.* He argued that in their responding to stories alongside peers, children claimed agency over it as writers themselves and showed that their social world and the story were not so distant after all.

Picturebooks and reading. Having delineated the roles of the co-participants in the reading transaction and identified the cognitive stretching brought forth by the vicarious social and embodied experience that is reading, I have set the stage for my choice to use picturebooks as symbolic tool per excellence to explore young children's meaning making capacities, including their reading and social understanding. Research

has established strong connections between reading pictorial and print narratives (Crawford & Hade, 2000; Paris & Paris, 2003). One such connection is that picturebook reading activates the meaning making processes just reviewed, including relying on previous experiences (Martínez-Roldán & Newcomer, 2011), looking for cues in the text and taking multiple perspectives (Crawford & Hade, 2000), and taking time to respond to the text (Sipe, 2002; Styles & Arizpe, 2001). In addition, reading images is linked to general reading development (Paris & Paris, 2003) and performance in standardized reading tests (van Kraayenoord & Paris, 1996).

More specifically, I employ wordless picturebooks in the task of exploring reading and social understanding. Picture based narrative assessments have several advantages over standard print-based reading assessments. Wordless picturebooks are sensitive, age-appropriate instruments for assessing children's narrative comprehension and they hold predictive validity for ensuing reading comprehension (Paris & Paris, 2007). In addition, to understand wordless picturebooks, children must draw from some of the skills used to comprehend printed narratives, like integrating information and inferencing (Paris & Paris, 2003), and establishing causality and temporality (Trabasso, Stein, Rodkin, Park Munger, & Baughn, 1992).

Literacy researchers have used wordless picturebooks extensively as medium to assess relevant phenomena, such as children's sense-making (Crawford & Hade, 2000) and their capacity to interpret visual design (Martínez-Roldán & Newcomer, 2011). As a medium that that relies solely on visuals, it provides an alternative and most needed account of children's reading capacity. It is an ideal space for children's active meaning making since to read it they have to "integrate and reconcile" images (Paris & Paris,

2003, p. 39) and ignore extraneous pictorial information (Paris & Paris, 2003). Further, by virtue of its visual modes (e.g., line, shape, color), the picturebook provides a forum filled with semiotic affordances for the interactive reader (Kress & van Leeuwen, 2006). Wordless picturebooks integrate aspects of key importance for assessing reading without the burden of print.

Picturebooks and social understanding. As a matter of fact, picturebooks in general have an established history as tools in the study and teaching of social understanding. Three main claims of this particular research are that picturebooks contain mental state language, present false belief situations, and require the coordination of characters' actions and consciousness.

The scholars exploring mental state language key on exposure to such terms as context for developing ToM (Dyer et al., 2000; Dyer-Seymour et al., 2004; Hinchcliffe, 1996). Researchers claim that an understanding of mental states is needed in order to *get* people's reactions and picturebooks can offer a place for children to grasp how emotions are depicted using various modes (Nikolajeva, 2012; Nikolajeva, 2013), and how people react while guided by different emotions (Astington & Jenkins, 1995). Pictorial narratives offer an opportunity to read mental state words and link them to characters' actions.

Another reason why picturebooks are considered conducive to ToM is their inclusion of scenarios where characters act on a false belief (Cassidy, Ball, Rourke, Werner, Feeny, Chu, Luts, & Perkins, 1998; Hinchcliffe, 1996; Szarkowicz, 2000). Upon reviewing 100 children's story books, Cassidy et al., (1998) found that a substantial amount of these titles included situations were characters acted on a mistaken belief. Similarly in a review of fairy tales, including illustrated ones, Hinchcliffe noted that false

belief situations are common and mentioned the scene where Little Red Riding Hood confuses the disguised wolf for her grandma. In the one study of its kind, Szarkowicz (2000) used a picturebook to assess young children's false belief knowledge through a dog that shifts in appearance. Above all, these authors acclaimed narratives (both textual and pictorial) for contextualizing false belief within elaborated plots.

Lastly, scholars concerned with ToM have used wordless picturebooks to elicit verbal narratives from young children. One of their main analytical strategies has been to check whether children are able to successfully integrate the two narrative landscapes described by Bruner (1986) as the *landscape of action* and the *landscape of consciousness*. Pelletier and Astington (2004) found that children with higher ToM scores were more likely to tell stories that bridged characters' actions with the internal states guiding such behavior. Similarly, Curenton (2004) found that African American children passing false belief tasks relayed more coherent stories, although she does clarify that some children who struggled on the traditional false belief task were also able to coordinate action and consciousness in their oral stories. Through a similar study with low SES Hispanic children, Fernandez (2011) concluded that ToM skills are a good predictor of children's capacity to tell coherent stories that integrate these landscapes.

In summary, when reading is conceptualized as an activity it is possible to address the complementarity of linguistic, cognitive, and relational capacities that we typically treat as discrete phenomena (Lysaker et al., 2011). The transactional and dialogical encounters between the child, author's signs, immediate audience, and vicarious others force us to consider the reading event as potentially a social experience. In looking at

children's embodied responses within the specific contours of the reading event, we make

our best bets to learn about their capacities for reading and social understanding.

CHAPTER 3. RESEARCH DESIGN AND METHODS

I open this chapter with a brief overview of mixed methods research and a rationale to ground its usefulness in the current dissertation. Then, I move into the particulars of the research design, the site, and participants. In addition, I explain the collection and analysis procedures across the research phases and foreground some of the analyses. I conclude this chapter by linking the various data sources to the research questions and discussing issues of validity and quality.

Overview of the MMR Field

Unlike the usual transparency that accompanies the decision to adopt a solely quantitative (QUAN) or qualitative (QUAL) research design, the choice to conduct mixed methods research (MMR) continues to evoke some suspicion for reasons I should expound below. For quite some time, the integration of QUAL and QUAN research was considered unsound, indefensible, and unsustainable (Niglas, 2010), but MMR researchers contested this idea of incommensurability (Johnson & Gray, 2010). The main issue was not necessarily their important differences, such as their pre-determined or emergent approach to design, just to mention one discrepancy. The root of this opposition was the assumption of QUAL and QUAN research as inextricably tied—one could even say *married to*—a particular philosophical tradition (Niglas, 2010) or data type (Gorard, 2010).

Soon enough, many questioned this dichotomy and envisioned a more pluralistic, diverse, and synthesizing conception of research (Greene & Hall, 2010; Johnson & Gray, 2010; Teddlie & Tashakkori, 2010). Like them, I see the problem resting on the idea of QUAL and QUAN as paradigms for how to think about phenomena rather than methods or tools for how to study them (Biesta, 2010). Following this premise, I set forth to study social understanding and reading *multi-dimensionally* (Mason, 2006), bringing together a variety of measures and data sources from seemingly contrasting disciplines (e.g., cognitive psychology, literacy). Such an inquiry allows me to describe these two phenomena and provide an exploratory view on how they come together in the process of making meaning from texts.

Mixed Methods Rationale

Mixed methods research (MMR) is an ideal method because it is characteristically diverse at many levels, including its blending of confirmatory and exploratory goals (Teddlie & Tashakkori, 2010). Phase One with its various tests, assessments, and tasks of reading and social understanding has a confirmatory goal. Meanwhile, Phase Two follows an exploratory aim looking at what children do with reading and social understanding in literacy events at school and relying on their reports too. Beyond the smaller aims of exploration and confirmation is the study's rationale to integrate results across methods in search of "paradox and contradiction," which may lead to a renewed perspective (Greene, Caracelli, & Graham, 1989, p. 259) on the social-cognitive and reading capacities of the Puerto Rican first graders. One way to pursue such contrast is through varied data like researcher prompted questions to test perspective taking skills in a structured task (Phase One) and child-led oral renderings of a wordless picturebook to

explore the ability to access the consciousness of book characters (Phase One), both targeting different yet complementary social skills.

While MMR may pursue various integrative purposes (Collins, Onwuegbuzie, & Sutton, 2006; Nastasi, Hitchcock, & Brown, 2010), as exemplified through the exploratory, confirmatory, and dissent goals just mentioned, my larger justification for mixing methods is guided by a pragmatic stance (Johnson & Gray, 2010). Note that I am not describing MMR as a third research paradigm, a construct I just debunked, instead I view it as a set of inquiry techniques. Consequently, it should not be assumed that pragmatism is put forth here as *the* philosophy that guides MMR generally speaking. Although it is important to mention that pragmatism has gained growing popularity within mixed research (Niglas, 2010). Despite its lengthy and productive history as a philosophical tradition in myriad fields, including the social sciences and particularly education (Medina, 2009), pragmatism offers, for my purposes, a series of tools (Teddlie & Tashakkori, 2010) useful for approaching research.

As a philosophy, pragmatism seeks to answer "critical questions that are not amenable to easy answers" (Kloppenberg, 2009, p. 32). As argued in earlier chapters, a pressing question that remains largely unexplored in relevant literature is related to minority children's social capacities. As a group, they are at times openly excluded in key investigations on children's social-cognitive skills (Peterson & Slaughter, 2003) and in other occasions, although part of the sample, their performance is reported with that of monolingual and middle class English speakers (Astington & Jenkins, 1995; Clare & Gallimore, 1996; Pelletier & Astington, 2004). Similarly, when we consider them in light of reading capacities, we find that minority children's proficiency is often summarized

using standardized tests (NAEP, 2011). What gets reported about them are scores from large scale exams belonging to QUAN approaches, thus, a QUAL perspective is needed to dig deeper in the *how* of this process where children navigate reading and literacy writ-large.

Scholarship on Puerto Rican children suffers from many restrictions too. In addition to following the standardized testing route (Departamento de Educación, 2014), this scholarship is typically not integrated into the larger national conversation due to its cultural and ethnic specificity. To exacerbate the situation, local scholarship in Puerto Rico addresses reading through the National Reading Panel definitions of reading as encapsulated in isolated skills like phonemic awareness (Ferrer Muñoz, 2007), with very little attention to comprehension and meaning making practices more broadly. With regards to social-cognitive skills, the local literature is simply nascent and scarce.

Another benefit of the pragmatic view is a disagreement with the one-sided thinking that typically accompanies the decision to adopt QUAL or QUAN methods (Johnson & Gray, 2010). Pragmatism thus cements this study's notion that numerical and exploratory approaches to studying reading and social understanding are both valuable and necessary. The multilateral conception of knowledge posited in the pragmatist tradition allows for inquiry into reading and social skills not solely as constructs to be measured *out there* but as part of the participants' lived experiences (Biesta, 2010). Consequently, it permits researchers like me to focus on the practical consequences of research (Johnson & Onwuegbuzie, 2004). While this dissertation seeks to determine the presence of the above mentioned phenomena with a population often absent in related studies, one of its most concrete implications is a depth of understanding on how social

understanding may be apparent in particular literacy activities, such as reading events. The purpose of this dissertation, in accordance to pragmatist ideals, is to put together a series of *warranted assertions* (Biesta, 2010, in a borrowing from Dewey's work) about the phenomena in question. I do not intend to claim unvarying truths (Medina, 2009) about the participants' reading and social-cognitive skills; rather, I describe these phenomena in the particularities of one point in time and in the unique context of their literacy experiences.

Mixed Methods' Design

This dissertation adopts a predominately QUAL sequential MMR design (Creswell, 2009; Hesse-Bieber, 2010). First I measure the class's reading and social-cognitive skills and then I explore their experience with these phenomena. This design permits the examination of particular indexes of reading and social-cognitive capacities, as well as an integrated reading task, during the first phase. In the second phase, it keys on contextual information about children's familiarity with these phenomena through self-reports and observations.

The prevalence of QUAL methods corresponds to the study's sociocultural focus on (a) individuals as makers of meaning who are dexterous readers of the world around them (Dyson, 1989), and symbolizers who skillfully use cultural signs and tools (Lantolf, 2007); (b) my conviction that becoming literate is a social phenomenon that alters the entirety of our being (Vygotsky, 1978), including the ability to partake in the world and reflect upon it; and (c) a view of reading as occurring through multiple sign systems (Hassett & Curwood, 2009; Short et al., 2000), being dialogic (Bertau, 2007; Lysaker, 2006, 2007), and aligned to cultural ways of using texts (Matthews & Cobb, 2005).

Although not visibly so at first sight, the quantitative data of Phase One also finds its niche in a sociocultural perspective. We often forget that Vygotsky and his colleagues conducted myriad individual-child experiments (Vygotsky, 1987a) in their efforts to measure mental functioning. Further, Vygotsky was interested in what the child could do independently, what the child had accomplished or learned (Glick, 1997) at a particular point in time.

Site

The study was conducted in a semi-urban public elementary school in central Puerto Rico. The school which was at the time in its eighth year of not meeting adequate yearly progress, starts its literacy curriculum at the kindergartner level. Its population is comprised almost exclusively by Puerto Rican children of low socioeconomic status (SES) from a neighboring public housing project, as reported in a home language survey prepared by and shared by the school administration.

Participants

Participants belonged to one classroom of first graders at the school just described. The exact number of children in the class was 26 from which 20 returned signed research permissions and 17 met the study's criteria (i.e., Spanish as first language, no diagnosed learning disabilities). Of these 17 students, 10 were females and 7 were males. The mean age for the class, according to the gathered demographic information, was 6 years and 7 months.

Data Collection

Data collection took place in the second semester of their first grade year. General data collection was carried out in various school locations: the library, the faculty

conference room, and the computer laboratory, based on space availability during my visits in the spring semester of 2014. Quantitative tasks were distributed to individual children across multiple sessions to avoid fatigue. Sessions typically comprised of three meetings with each child. In short, five sources of data on reading experience were collected: a reading interview, a reading inventory, a comprehensive vocabulary test, a measure of concepts about print (when applicable), and a picturebook reading task. In addition, three social-cognitive measures/tasks were conducted: a narrative false belief task, a test of emotion understanding, and a wordless picturebook reading task. All copyrighted measures were obtained through the author or publishing company.

Data collection was conducted in the participants' first language to avoid disruptions in communication (Kim, 2011). By confining the sample to all low socioeconomic (SES), this dissertation targets a group with plausible similar language experiences (Curenton, 2004; Fernández, 2011) since extant research has time and time again documented connections between language ability and SES.

Protection of all parties was secured by gaining IRB approval from Purdue University and by collecting child assent, parent consent for child, and principal/school permission. Cultural sensitivity was achieved by making all research documentation in Puerto Rican Spanish through a process of verification between the bilingual researcher and another Spanish expert. Efforts were made to identify tests suitable to Latino, Hispanic or Puerto Rican children to achieve better sensitivity to cultural and ethnic intricacies, as will be expanded later in this chapter.

Phase One

During Phase One, I targeted children's reading and social understanding. I pursued the identification of reading and social-cognitive skills across various tests. This phase reflected the cultural-historical attention to what is *completed* or known to individual children (Glick, 1997). To do this, I first administered tests aligned with cognitive views of social understanding and developmental views of reading. I gathered data from all first graders in the class who returned a consent form and met the study's criteria, N=17. These data served to provide a general overview on the reading and social-cognitive capacities of children in this particular classroom. A description of the data sources collected from the class is presented below.

Comprehensive vocabulary test. The *Test de vocabulario en imágenes Peabody* (Dunn, Lugo, Padilla, & Dunn, 1986), or TVIP, is the Spanish version of the well-established Peabody picture vocabulary test. During its administration, usually taking 10 to 15 minutes, I stated a stimulus word in Spanish and presented an easel plate with four images for each test item. The child typically pointed at the image that best represented the stimulus word—although they could also state the number under each image. The administration continued until the child's basal and ceiling points were established. The obtained raw score was converted to standardized scores for Puerto Rican norms and equivalent age for statistical purposes.

Since its development, the TVIP has been used with bilingual Latino children (Umbel, Pearson, Fernández, & Oller, 1992) and Puerto Rican children in the US and PR (Miccio, Tabors, Páez, Hammer, & Wagstaff, 2005). This test was used to gather an overview of the participants' level of comprehensive vocabulary. Receptive vocabulary

measures are classic measures in social-cognitive research which hold unique variance in FB understanding (Milligan et al., 2007), and are a good predictor of success in FB tasks (Miller, 2006). In addition, comprehensive vocabulary has been generally regarded as a strong predictor of reading comprehension (Pearson et al., 2007).

Informal reading inventory (IRI). The informal reading inventory (IRI) used was the Spanish portion of the *Flynt/Cooter comprehensive reading inventory: Assessment of k-12 reading skills in English and Spanish* (Cooter, Flynt, & Spencer Cooter, 2014). The child was asked to read three leveled sentences beginning at the first grade level. Children who had three or more errors at this level where assessed for comprehension at the primer and pre-primer levels, all other proceeded to read sentences at higher grade levels until tapping out. Once a reading level was established, I proceeded to administer the fictional passages. Children who were unable to read conventionally started off at the pre-primer level with a text that conveys a story through four sequential images. Those who met the indicators of this level read the primer passage also made up of four images each with accompanying brief sentences for each illustration. Conventional readers started at the first grade passage and advanced only if they met the corresponding indicators and answered the comprehensive questions without missing more than three. Comprehension questions targeted aspects such as characterization, problem, and story theme. The questions were marked as children retold the passage just read. Since the children would participate in the telling of a story for the social imagination component, the IRI passages were useful as insight into their narrative capacity.

IRIs have been deemed appropriate assessments for minority groups in part due to the oral retelling component (Gandy, 2013), which allows them to tell the story in their own words and address the questions naturally. Plus, they are useful as a complementary measure amongst others, such as authentic observations of this population (Gandy, 2013; Rogers & Helman, 2009). Its main purpose was to determine conventional reading level in two ways: decoding leveled sentences and comprehending short fictional stories.

Concepts about print. The Spanish reconstruction of the concepts about print (CAP) assessment titled *Instrumento de observación de los logros de la lecto-escritura inicial* (Andrade, Basurto, Clay, Ruiz, & Escamilla, 1995) was used as proxy for the class's previous experience with book reading. The CAP was administered only to children who performed in the pre-primer and primer levels of the IRI. The CAP addresses five categories: (a) concepts about book orientation; (b) reading conveyed through print or image; (c) concepts about directionality; (d) concepts about words, letters, capitals, and space; and (e) concepts about the relationship between print and oral language. As I read the book *Arena: Del cuento 'Sand' por Marie Clay* (Rodriguez, 1995) with the child, I paused at particular points and prompted the child to point or show me something (i.e., Show me where to start reading on this page). The child's correct identification of each item is allotted one point with higher scores indicating more knowledge.

CAP assessments are a typical measure of studies with young children (Lysaker et al., 2011; Paris & Paris, 2003; van Kraayenoord & Paris, 1996), especially due to their usefulness as proxy for children's familiarity with books and print reading. Since book reading is a cultural literacy practice characteristic of specific groups, such as middle-

classes households (Delpit, 2012), assessments of literacy development are imperative for children who may lack exposure to mainstream literacy practices (Compton-Lilly, 2007) like oral cultures and children from low means (Curenton, 2004). Because this experience or lack-there-of may influence children's performance in reading tasks conducted in book medium, it was necessary to identify their knowledge of book conventions. In fact, most of the social-cognitive tasks selected in this dissertation are presented through books. Consequently, identifying knowledge of these criteria prevents the confounding of plausible inexperience with books with the absence of social-cognitive skills in the narrative tasks.

Narrative false belief task. For this task (Szarkowicz, 2000), I read to individual children the picturebook *Harry, el perrito sucio* (Zion, 1996), the Spanish version of *Harry the dirty dog* (Zion, 1956) to avoid issues associated with decoding skills and language comprehension. In brief, the story is about a dog that escapes from home, gets dirty, and is not recognized by its owners until it is bathed. During the book reading, children must answer three false belief (FB) questions consisting of two parts each (e.g., Who does the family think the dog is? Who is the dog really?) For each two-part question answered correctly the child receives one point totaling up to three points, see Appendix A. This task is designed to determine the child's ability to adopt the perspective of the different family members (Szarkowicz, 2000), who unlike the reader, do not know that Harry has temporarily shifted from a white dog to a black dog.

It is a suitable test of social understanding because it shows whether children differentiate between their own knowledge of a situation and that of the characters' (Symons, 2004). Symons explains that children who pass FB tasks understand two

important constructs: (a) the self as a mental agent whose thoughts/beliefs can change and (b) knowledge and beliefs as aspects that vary from person to person. Further, aligned to the study's focus on reading, it presents Harry's goals (Trabasso et al., 1992) and emotions (Nikolajeva, 2012; 2013) in accord with his actions and those of other characters. Harry's main goal is to be recognized by the family after his escapade. While he is initially described through words and displayed in images as enjoying every minute of his adventure, he later shifts to a sense of worry at the thought the family may never recognize him. Akin to the study's view of story as a social space, children must link characters' actions with aspects of their consciousness, such as characters' feelings and intentions to answer these questions correctly.

Eyes test. The *Test de miradas para niños* is the Spanish version of the *Reading the mind in the eyes test* (Baron-Cohen, Wheelwright, Spong, Scahill, & Lawson, 2001). It consists of 28 black and white images displaying the eyes, eyebrows, and upper nose of adults of various ages and sex groups. The pictures were bound as a booklet and children were asked to look at each picture while I read the four words located in each corner of the image. The words describe an emotion or mental state, which the child must accurately identify by pointing or mentioning the word that best represents what the particular person is thinking or feeling. Each correct answer is allotted one point.

While the test was originally developed to measure deficits in social skills, in subjects with conditions such as Asperger's syndrome and Autism (Baron-Cohen et al., 2001), it has also been used with normally developing children as a test of ToM (Baron-Cohen, Wheelwright, Hill, Raste, & Plumb, 2001). As mentioned in earlier chapters, the ability to read other people's emotions is an important step towards social understanding

whether we speak of *real* social situations or vicarious ones like book reading

(Nikolajeva, 2012, 2013).

Wordless picturebook reading- verbal response. The WPBR-V reading task

was selected mainly due to its recognized benefits to elucidate children's own ways of

reading (Lysaker & Miller, 2012), narrative comprehension (Paris & Paris, 2003; van

Kraayenoord & Paris, 1996) and social-cognitive capacities (Pelletier & Astington, 2004;

Trabasso et al., 1992). As a medium that relies solely on images, it provides an

alternative and most needed account of children's reading capacity. It is an ideal space

for children's active meaning making since to read it they have to "integrate and

reconcile" images (Paris & Paris, 2003, p. 39) and ignore extraneous pictorial

information (Paris & Paris, 2003). In terms of social understanding, this task facilitates

the exploration of children's ability to take and voice the perspectives of book characters

(Lysaker & Miller, 2012), interpret character's actions in light of inner states (Bruner,

1986), and imagine the thoughts, feelings, and intentions of others (Lysaker & Miller,

2012; Lysaker et al., 2011).

In this task, I showed the book cover to the child, read the title, and encouraged

the child to look through the picturebook. Then, I asked the child to tell a story using the

illustrations; a translated verbal protocol (Lysaker et al., 2011) was used to introduce the

task in the same manner to all children, see Appendix D. The child's narrative was

recorded using a video camera to (a) note the page children were observing at particular

moments, (b) document children's manipulation of this cultural tool, and (c) check on

their investment in the task. For initial analyses, the child's verbal narrative was

transcribed and coded using a conceptually derived coding scheme (Lysaker et al., 2011),

which focuses on instances of social imagination: the attribution of thoughts, feelings, and intentions to book characters. Children's book manipulation and related activity, such as expressions of involvement and evidence of reading behavior were recorded in an Excel database of *reading activity*. Their book readings were explored for word counts, total instances of social-cognitive and narrative markers, and the extent to which children performed landscape coordination.

The picturebook used for this task was Béatrice Rodriguez's (2010) *The Chicken Thief*. The book opens up with a cartoonish spread picturing a calm morning where a series of animals behave according to their species (e.g., a rooster is crowing) and in anthropomorphic ways: A rabbit is opening the shutters of a small house to let the Sun inside. As they go about their morning, a fox pops from a nearby bush and takes a chicken. For the next four spreads, the chicken's companions (i.e., bear, rabbit, and rooster) pursue the fox, which runs chicken in arms. From then on, a few ambiguous images show what appears to be Fox and Chicken actually sharing (e.g., playing chess inside a cave, sailing in a boat) while still hiding or running away from Chicken's friends. In the last two spreads, Bear, Rabbit and Rooster reach a house, peak through the window and break inside, only to find Fox and Chicken holding a steaming bowl. A series of small consecutive frames show the progression of what appears to be Chicken explaining to the animals what is going on. The book ends with the animals returning to their house leaving Fox and Chicken behind.

The book was selected upon reviewing different picturebooks in the Children's Literature Comprehensive Database. The results were gathered using the keywords *wordless* and *books without words*. This title was chosen in part because its conflicting

goals (Trabasso et al., 1992) provide a great context for studying children's grasp of situations guided by mistaken belief and singular perspectives. Beyond that, the absence of words provides a context where children may elaborate on the inner motivations that guide characters' behavior and the plot more broadly. Plus some of its visual enigmas may challenge the imagination; this openness is important to get at children's capacities for making meaning. In addition, the value-laden title (i.e., fox as thief) calls on the reader's previous experiences with foxes as story villains. The title is almost immediately complemented by the visual where the fox predator seems to snatch an inoffensive animal. In brief, the book provides a favorable context for exploring children's meaning making. For instance, do they notice the subtle clues presented half-way through the book that hint at the actual relationship between Fox and Chicken? (e.g., the Sun shining over Fox and Chicken as they sail). Do children pay attention to the suggested visual meanings and note its trickery (Astington & Edward, 2010)?

In summary, Phase One integrates contrasting views of reading and social cognition. The reading tests reflect sequential and linear views of reading, that is, theories that purport there are certain skills needed before reading can occur. For example, decoding and knowledge of print are needed before comprehension can be attained (Babayiğit, 2014; Grant et al., 2012; see Purcell-Gates et al., 2004 for a critique), giving primacy to print as precursor. In a similar fashion, the social-cognitive tests correspond with cognitive and developmental perspectives. In such scholarship, insights about human social behavior ensue universally at particular ages (Flavell, 2000; Wellman et al., 2001). Other more complex understandings such as second level ToM (Liddle & Nettle, 2006) and emotion understanding (Seidenfeld, Johnson, Cavadel, & Izard, 2014) occur

later. These social-cognitive insights are envisioned as individual components and pieces acquired by individuals, and thus tested in experimental settings.

The wordless picturebook task stems from an entirely different worldview. With regards to reading, it follows notions of plurality when it comes to literacy and it centers on how they are used by people (Dyson, 1989; Moje et al., 2009). This reading perspective does not prescribe any one timeline as the way to make sense of a text. Children do not move from a non-reader status to a conventional reader label; they are already reading the world before they start formal literacy instruction (Valencia & Sulzby, 1991) and before they can decode (Paris & Paris, 2003). In terms of social understanding, it posits that storybooks are spaces for encountering others (Bertau, 2007) and for imagining how they think and feel (Lysaker & Miller, 2012; Lysaker et al., 2011). Despite these obvious contrasts in worldview, the tests, assessments, and tasks administered in Phase convene to document the first graders' capacities to mean from texts and social situations at the culmination of first grade.

Phase Two

Once all measures and assessments of reading and social understanding were completed, data collection underwent a brief pause. The purpose of this hiatus was to check for missing data, undergo initial descriptive analysis of participants' performances across measures and start gaining a sense of the range of capacities in the class. This process of carefully perusing scores and performances across predominately QUAN and the QUAL task ignited initial ideas about participants whose performances merited special attention in the upcoming QUAL data collection with the class and it also informed the early theorizing of plausible relationships between reading experience and

social understanding. The remaining two types of data collected from the class were classroom observations, and a short interview; these occurred as part of Phase Two. The purpose of this phase was to gather contextual information about children's reading experience.

Classroom observations. During the field entry stages, observations had an orienting function. I kept detailed field notes on the setting's layout, sequential order of activities, and the participants, as recommended by Purcell-Gates (2011). The main goals of the classroom observations were to develop a narrative of typical classroom literacy routines, describe the enacted reading philosophy and approaches to reading instruction, document participants' investment in reading activity, and explore whether the classroom fostered opportunities for social-cognitive development (see Appendix B for sample observation items). In observing these and recording the types of reading materials/tools typically used in the classroom, I captured how reading is defined in the classroom culture and what children are expected to do in terms of reading. Similar approaches to documenting literacy practices have been proposed by researchers working with young children who focus on what children do (Dyson,1989), theorists adopting sociocultural views of literacy who highlight the role of tools and cultural ways to solve problems in children's own literacy uses (Mathews & Cobb, 2005), and reading researchers who recommend pairing reading assessments with authentic observations to gain more depth on children's reading capacities (Gandy, 2013; Rogers & Helman, 2009).

During the observations, I was a participant observer. I helped children who requested my aid in spelling a word or understanding instructions and those who needed a pencil sharpened, just to mention a few. Observations were conducted during the Spanish

portion of the class in April and May of 2014. The class periods typically fluctuated from approximately one hour up to a maximum of three hours for approximately 20 observed hours. As a clarification, public schools in Puerto Rico do not have classes dedicated exclusively to reading and children learn this skill in Spanish class. During these observations, I alternated my position along the various children's desks with the goal of observing multiple children as they worked on the day's tasks. Classroom field notes were revised daily and transcribed weekly to inform future observations. These instances of data revisiting also served as initial steps to manage and analyze the ethnographic sources for patterns and themes (Flick, 2009).

Child interviews. A modified version of *The student interview, grades k-4* (DeKonty Applegate, Benson Quinn, & Applegate, 2008) was used. The first section gathered background information about participants' experiences with and views on reading. Modifications to original interview items were made, especially to items pushing middle-class and Western views of literacy in the home, such as the item "Where do you get the books you read at home?" (DeKonty et al., 2008, p. 72). Studies with Puerto Rican children have shown the inadequacy of such perspectives (Ferrer Muñoz, 2007) in the study of low SES children. Interviews are structured as shown in the appendix and were annotated in the space provided on the interview sheet (see Appendix C, for interview recording sheet).

The interview items on book exposure were used as proxy for reading experience in the home (Mar et al., 2010). From a sociocultural perspective, it seems important to account for the multiple ways in which children learn to read and whether this happens primarily in school, at home or in both settings. Research shows that parent-child shared

reading is an important contributor to children's developing social-cognitive skills (Peterson & Slaughter, 2003; Symons, 2004) and the extent to which such practices are carried out in low SES Puerto Rican children's homes remains a large gap in available literature. Plus, this data source allows for triangulating (Greene & Hall, 2010; Schostak, 2010) children's reading experience by integrating reading measures (i.e., IRI), researcher observations, and children's self-reports.

The contextual information gathered in Phase Two targeted two contexts of major importance to literacy development: the home and the language classroom. As mentioned above, since early exposure to literacy practices is key to its development, I inquired on what such practices looked like in their home. In addition, because the literature suggests lower conventional literacy practices in minority and low SES households, it was vital to check on their formal learning in the Spanish classroom. Classrooms are one important context where children may appropriate a cultural tool kit: the valued ways for meaning in a particular space (Wertsch, 1991, p. 25). This is especially the case for children who may lack access to such practices in the home. Figure 1 presents the research design.

Phase 1	**Procedure**
What is completed in terms of reading and social understanding	• Scoring of TVIP, IRI, CAP, FB, ET • Transcription, coding, and quantizing of WPBR-V • Analysis: Descriptive statistics and Spearman Rho correlations • Software: SPSS & Nvivo 10
Phase 2 Home and school reading contexts	• Field notes of classroom observations and interview annotations • Classroom observations: Constant re-reading and coding queries • Interviews: Annotate and quantify predominant answers • Nvivo 10

Figure 1. Research Design

Analysis

All QUAL data (i.e., researcher's memos and field notes, interviews, and WPBR-V) were transcribed or annotated, as explained in the previous headings, and uploaded to a research unit in Nvivo 10. This software allows for the use of common codes across different files. It also enables the manipulation of visuals (e.g., matrixes, graphs) to explore the interconnectedness of codes, counting the instances of a particular code, and determining their occurrence in specific data sources, single participants and participants with specific attributes (e.g., sex, reading level). The QUAN and quantitized data (i.e., FB, ET, TVIP, IRI, and CAP) were inputted into the Statistical Package for the Social Sciences (SPSS). Because of sampling limitations, the statistical analyses targeted hereare primarily descriptive. These data were explored in search for ranges, means, standard deviations, and frequency counts. Upon meeting needed conditions, correlational tests between reading and social-cognitive measures were conducted to explore the possibility of these skills being related, as has been suggested in the literature. One further mixed analysis was the *quantitizing* of QUAL data (Bazeley, 2010) yielded from the WPBR-V coding in Nvivo for use in statistical tests; these are addressed in more detail with the "Findings."

As mentioned earlier in this chapter, the incorporation of QUAN and QUAL data occurred *iteratively*, that is—it took place during different phases of the actual research design as data were used to confirm and explore various questions (Nastasi et al., 2010; Teddlie & Tashakkori, 2010). Figure 2 showcases how each research data source contributes to answering the research questions:

Research Questions	Data Sources
1. What is the reading experience of a group of Puerto Rican children?	TVIP, IRI, CAP
2. What are the social-cognitive capacities of a group of Puerto Rican children?	FB, ET
3. In what ways is social understanding apparent in a reading event?	WPBR-V
4. What is the relationship, if any, between the reading experience of a group of Puerto Rican children and social understanding?	TVIP, IRI, FB, ET, WPBR-V
5. What opportunities exist in classroom literacy events, particularly reading, to express/rehearse social understanding?	Classroom observations, interviews

Figure 2. Research questions and data sources

Validity

The focus of QUAN research on generalizability imposes certain conditions on research designs and sampling techniques (Onwuegbuzie & Combs, 2010). For instance, it requires sampling schemes that are randomized and specific sample sizes so that statistical analysis can achieve significance (Collins, 2010). The predominance of QUAL approaches in this dissertation do not allow for these criteria to be met. The purposeful selection of participants and the relatively small sample size limit the extent to which the analyses conducted here can be transferred to other contexts. Luckily, as explained under the rationale, the goal of this study is another. While this dissertation may be constrained by various threats to external validity (Matt, Brewer, & Sklar, 2010), its grounding on current literature, rigorous data collection, and rich data sources still concede a worthwhile discussion of the phenomena of interest. Further, the selection of reliable measures to examine comprehensive vocabulary, reading comprehension, false belief and emotion understanding, also strengthen it. Note that issues of reliability associated with the selected assessments and tests have already been discussed in their particular headings. As last caveat, specific procedures for determining the appropriateness of statistical analyses were consulted with a statistician.

Trustworthiness

By gathering a multiplicity of sources (Glesne, 2006) on the reading and social-cognitive capacities of these first graders, I accomplished important goals of QUAL research, such as providing depth to the study of phenomena through description and explanation (Mason, 2006; Niglas, 2010). Like other qualitative researchers, I am interested in conveying the lived experiences of the participants (Onwuegbuzie & Johnson, 2006). The classroom observations and individual interviews are brought in to this purpose: to glean insight on children's own views of what reading looks like in school and at home, and to document this important daily experience. As part of the reflective component (Creswell, 2009) some of the limitations of the QUAL component became apparent. For example, a longer observation period may have yielded richer data on children's daily educational experience, including their exposure to formal reading instruction and opportunities for rehearsing social-cognitive skills.

Quality

In describing validity and trustworthiness I meet a common practice in mixed methods research: considering the strengths and limitations of each component separately (O'Cathain, 2010). One shortcoming sometimes disguised in this relatively straightforward approach to addressing each component, is the belief that each component is different and as such must be discussed and handled independently (Morse, 2010). Personally, I align my endeavor with another group of scholars who propose that true MMR must discuss issues of *validity* within the larger study—beyond its isolated components—in order to determine whether it is good or bad MMR (O'Cathain, 2010). In this section, I address issues of worthiness only as they relate to the design

(Onwuegbuzie & Johnson, 2006) and methodology (O'Cathain, 2010) portions of the dissertation because those related to data analysis and conclusions are explored in their respective chapters.

In this chapter, I have taken several steps to secure this dissertation's quality. As recommended in O'Cathain's MMR *quality framework*,[2] I included earlier in this chapter a rationale for mixing methods and grounded this dissertation in available research design typologies offered in MMR scholarship. First, I did not encapsulate the study in the prescriptive and deductive views that are endorsed by those who see MMR as just another research paradigm, much like QUAL and QUAN research (Johnson & Onwuegbuzie, 2004). Instead, as mentioned in the beginning of this chapter, I approached this research pragmatically, using the tools and methods that best fit my research purpose. Following another element in this quality framework, I have linked the various data sources to the study's research questions, as exemplified on Figure 2, and have provided transparent descriptions of each test and task. In so doing, this mixed methods' dissertation complies with quality criteria for the planning stages of a study.

I also targeted quality during the project's undertaking. One important recommendation given by Johnson and Gray (2010) is for MMR researchers to constantly engage in *checks and balances*. This approach secures meeting the research purposes, whether these are to explore or to confirm. This idea of continuous checks leads to my next point: the moment at which data should be integrated. In her review of MMR in education, Niglas (2004) critiqued that most studies only integrated data during the findings' and discussion sections, which she argues does not exploit the interpretive

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[2] O'Cathain (2010) acknowledges that her quality framework has largely been influenced by the work of Tashakkori and Teddlie, and Caracelli and Riggin's among several other scholars (p. 539).

potential of MMR. Considering this issue, I revisited data at various points to meet the study's sequential design, where data from earlier portions influenced later stages, but more importantly to promote an iterative approach (Teddlie & Tashakkori, 2010) since the early phases.

In this chapter, I argued for this dissertation's place in current discussions about young Puerto Rican children's meaning making capacities, particularly as they relate to reading and making meaning of vicarious social situations. I described the scope and purpose of each data source and research phase. Finally, the data were placed within the study's research questions and the strengths and limitations of the research design were addressed.

CHAPTER 4. FINDINGS

This chapter opens with the results of Phase One. It pursues the findings related to (1) the reading and (2) social-cognitive capacities of the class, (3) an exploration on the visibility of social understanding in a reading event, and (4) a discussion on the relationship between the classes' reading experience and social-cognitive capacities. In addition, it addresses the findings from Phase Two describing (5) the extent to which classroom reading events are conducive to social understanding and (6) touching on children's reported home reading experience.

Note that throughout all qualitative data are kept in their original language. Spanish data are denoted by double quotation marks and followed by an English translation in italics. This decision was made to maintain the integrity of the data and also to addresses the dissertation's target readership: educators and researchers interested in Spanish-speaking children and Puerto Rican samples.

Research Question 1. What is the Reading Experience of a Group of Puerto Rican Children?

In this section, I explore the reading experience of the entire class discussing first their mastery on a series of reading sub-skills and closing with a naturalistic picturebook task. I rely on descriptive statistics to explain their performance in each test next to their

peers,' test benchmarks, and similar samples. Specifically, I discuss their comprehensive

vocabulary, reading level, and knowledge of concepts about print.

These tests and assessments reflect Phase One's developmental focus on reading

ability. This cognitive approach purports that reading progresses through stages and that

meaningful comprehension occurs after decoding is attained (See its critique: Purcell-

Gates, Jacobson, & Degener, 2004). In discussing my sample's reading capacity, I

address their abilities as defined in the dominant literature guiding educational decisions

in the United States and its territories (RAND, 2002). Thus, these tests help situate the

first graders within the current literacy context, with its particular definitions of what it

means to read print and what makes a reader. Table 1 below shows the class's

performance.

Table 1.

Means and Standard Deviations for Reading Tests and Assessments

Reading skills	M(SD)
TVIP (N=17)	*105.24*(11.535)
CAP (N=12)	*13.08*(2.392)

TVIP. The Spanish version of the *Peabody Picture Vocabulary Test* gathered

participants' capacity to comprehend vocabulary outside a reading context. Vocabulary

comprehension has been identified as a strong predictor of reading comprehension

(Pearson et al., 2007). The logic being that to the extent that children know more words,

they are expected to better understand printed passages.

According to test benchmarks, mean receptive vocabulary scores (TVIP) for the

class were average to those of children of comparable age and ethnic background

(*M*=105.24, SD=11.535). Standardized receptive vocabulary scores ranged from

moderately low (76) to moderately high (118) with the majority of the participants, i.e.,

70.6%, performing within the average range. While the girls' mean standardized TVIP score was higher than the boys,' this difference failed to reach significance. The mean TVIP equivalent age for the participants is approximately 7.2 suggesting that the class's comprehensive vocabulary is about 7 ½ months above their actual age. Based on their performance and in light of Pearson et al's argument that vocabulary predicts comprehension, I expected the first graders to do well in the comprehensive component of the informal reading inventory; in other words, I anticipated they would be able to read and comprehend passages at the first grade level.

IRI. Nonetheless, as the RAND Reading Study Group (2002) warned, the association between vocabulary knowledge and comprehension is a complex one. To comprehend what they read, children need more than isolated vocabulary words. They need to be able to read words within larger structures such as sentences and passages. Clay (2004) argued that while word knowledge is valuable, it is insufficient for comprehension, for understanding larger units of meaning. I relied on the *Flynt/Cooter Informal Reading Inventory* (IRI) to determine whether participants could read information in context and comprehend it via a set of post-reading questions.

Ten participants were unable to read graded sentences conventionally. With regards to passage reading, 12 children were below grade level. In other words, only 5 children reached comprehension as established by the questions accompanying each passage; this places roughly 70% of the class below grade level. Table 2 summarize their sentence-level and passage performance.

Table 2.

Informal Reading Inventory Performance

Sentences	Frequency	Percent
Did not attempt it	4	23.5
Attempted it but did not finish	6	35.3
First Grade	3	17.6
Second Grade	2	11.8
Fourth Grade	1	5.9
Seventh Grade	1	5.9
Passages		
Pre- Primer	5	29.4
Primer	7	41.2
First Grade	3	17.6
Second Grade	2	11.8

Their average TVIP score and their equivalent vocabulary age had suggested a more positive outcome. Nonetheless, the first grader's low passage comprehension reiterates what reading experts (Clay, 2004; Pearson et al., 2007) have pointed out regarding reading comprehension: it necessitates more than just word knowledge. Reading comprehension has rightfully been deemed a "multifaceted process" (Babayiğit, 2014, p. S23) including various key components, among them decoding, i.e., the ability to recognize words from print (Grant et al., 2012) and linguistic comprehension: using words and grammar clues to understand what has been decoded (Grant et al., 2012). It is possible that any two of these two skills could have negatively influenced the first graders' scores. Unfortunately, the goal of this study was not to identify such deficiencies. Future studies with similar samples could implement more extensive batteries of reading tests to chart the areas of necessity with low SES samples.

CAP. Considering the fundamental role of print in prevalent definitions of reading and children's low IRI passage performance, it was vital to determine their knowledge of print. I needed an assessment to check on their knowledge about the

alphabet and print concepts. As Lonigan et al. (2013) explain, based on their work with

Spanish-speaking language minority children and children from low socio-economic

means, these populations have demonstrated low comprehension and print knowledge.

The sample's IRI performance resonated with this literature, showing that these low SES

first graders were not reading print at appropriate grade levels.

These 12 children completed the Spanish version of the *Concepts about Print*

(CAP) assessment. These assessments are common in studies with young children

(Lysaker et al., 2011; Paris & Paris, 2003; van Kraayenoord & Paris, 1996), particularly

because they are useful as proxy for children's familiarity with books and print reading.

Time and time again literacy researchers (Valencia & Sulzby, 1991) have argued that

early interaction with print is a determining factor in children's knowledge about print.

Knowing about children's exposure to books and print is important also because print

knowledge is a component of the dominant approaches to reading targeted in this

research question. Plus, concepts about print has been deemed one of the best predictors

of reading ability (Justice et al., 2006).

The average CAP score for these 12 participants was 13.08 (SD=2.392) out of a

total of 22 items with scores ranging from 8 to 17. Overall, they demonstrated mastery of

three out of five CAP categories: (a) *concepts about book orientation*, (b) *reading

conveyed through print or image*, and (c) *concepts about directionality.* Aptitude was

defined as obtaining at least 70% of the items in the particular category. These 12 first

graders recognized when the text was upside down, identified the printed text as the

conveyer of the message, and signaled that reading is done from left to right and top to

bottom. However, the assessment also revealed that they have much knowledge to

acquire in the areas of *concepts about words, letters, capitals, space, and punctuation* and *concepts about the relationship between print and oral language.* In fact, only two participants mastered 70% of all categories in the assessment.

In brief, the reading sub-skills' tests and assessments suggest that the majority of the class is starting to develop skills related to print knowledge as assessed by the CAP and the IRI. In addition, according to the IRI passages, they still lack the ability to grasp what they read from print. It is important to highlight however, that they displayed age-appropriate receptive vocabulary, indicating comprehension of spoken words and suggesting probable age-appropriate general exposure to verbal literacy practices and daily social interaction.

In this sense, the results from the reading tests collected in Phase One resonate with both developmental views of reading and the simple view of reading. Children's low print knowledge displayed in the CAP assessment supports the argument that effective recognition of words from print must occur before comprehension can be attained (Purcell-Gates et al., 2004 in their criticism of this view). Equally, it echoes with proponents of the simple view of reading who argue that in the early years, word recognition from print is the key variable in reading comprehension (Grant et al., 2012, p. 1901). Relevant to this discussion is the point made by reading researchers who identify print knowledge as having a significant group effect for Spanish-speaking children (Lonigan et al., 2013) and children from low SES (Justice et al., 2006; Justice & Ezell, 2001). The first graders' low concepts about print score offers one explanation for the struggle in comprehending the IRI passages: in the absence of print knowledge, the automated word recognition assumed by decoding is not yet achieved. At the same time,

this explanation presents one framework for interpreting the children's low passage

comprehension in light of average and even above age comprehensive vocabulary.

Research Question 2: What Are the Social-Cognitive Capacities of a Group of

Puerto Rican Children?

Question two addresses the social-cognitive capacities of the first graders based

on their performance on the tests and assessments of social understanding administered in

Phase One. According to the Theory of Mind literature, which has gained much footing

in current discussion of children's early social cognition, there are a series of constructs

at the core of understanding human behavior, two of them being knowledge about beliefs

and psychological states (Astington & Edward, 2010). The literature suggests (Flavell,

2000) that children who know that human behavior is guided by beliefs and

psychological states have a Theory of Mind, some insight about human action. Table 3

summarizes the results of the social understanding tests:

Table 3.

Summary of Social Understanding Tests

	Performance
False Belief	
One item	1
Two items	5
Three items	11
Eyes Test	*15.82* (3.779)

Note: False belief is reported in terms of items correct out of
three. Eyes Test is reported using descriptive statistics of mean
and standard deviation.

False belief. False belief tasks have become a default test of Theory of Mind

(Moll & Meltzoff, 2011). This task in particular determines if children can distinguish

between their knowledge and the knowledge that various book characters have regarding

the true identity of a dog (Szarkowicz, 2000). It is meant to show if the child understands

that the book characters are acting on a false belief.

Aligned with developmental benchmarks, there was a ceiling effect in the false

belief task with all participants passing the control question: All children demonstrated

knowledge of the dog's true identity. Grasping the point of view of the characters was not

so simple. Eleven participants answered all 3 test questions correctly while 6 failed at

least 1 item. One explanation for the performance of this 35% of the class is that they are

still nurturing their knowledge of epistemic states like beliefs. Their developing

knowledge as first graders is at par with existing literature establishing the onset of a

Theory of Mind just a few years earlier during the preschool years (Wellman, Cross, &

Watson, 2001) and describing its continued development throughout late childhood

(Ornaghi, Brockmeier, & Grazzani, 2014). The fact that roughly one third of the class

struggled with at least one item leads me to consider another account too, especially since

the task makers report an all or none outcome (Szarkowicz, 2000).

It is plausible, as others working with Latinos (Vinden, 1996) and children from

low means (Curenton, 2004) have suggested, that false belief tasks reflect affluent and

literate Western cultures' reasoning. A main complication even for this purportedly more

age sensitive narrative false belief task, is its verbal demands (Miller, 2006). For instance,

children's knowledge is tested through propositional remarks such as these: *Who does the*

family think this is? Who is it really? In fact, during test administration I was obligated to

rephrase the questions using simpler constructions like *Who is this? Do the children*

recognize him? Another important demand reported in the general ToM literature with

false belief tasks is that children are asked to keep track of multiple representations of

reality that shift in a narrative (Bloom & German, 2000; Miller, 2006). In this task, it entails following the parents' representation of reality, the children's, and the actual one. Children's responses to this kind of false belief task with multiple representations have been described by researchers as filled with fragility and confusion (Nelson, Plesa Skwerer, Goldman, Henseler, Presler, Walkenfeld, 2003).

Consequently, the first graders are not just telling me about one perspective or showing ToM. False belief tasks like this one may rely on conceptual understandings associated with higher levels of Theory of Mind, not just the simple attribution of mental states to one actor. This task was used however, because much like the reading exams, it addresses some of the key components considered in international conversations about children's ToM (Wellman et al., 2001) and social understanding more broadly. In addition, its picture book format made it closer to the accompanying task of social understanding to be implemented in Phase Two.

Eyes test. Providing insight into another component of social understanding is the eyes test. Specifically, this test targeted children's ability to infer emotions and complex mental states via visual images (Baron-Cohen et al., 2001). Higher scores suggest children's sensibility to facial expressions and people's emotional and motivational states. The attention to emotional states also reflects this study's view of consciousness as made up of various interdependent functions (Vygotsky, 1987c) that include thought, emotions, and goals, among others. At the same time, it addresses the criticism that ToM literature with its focus on belief follows a cognitive view of social understanding (Astington, 2001).

The sample scored a mean of 15.82 (SD=3.779) in the eyes test while the test authors reported means of 14.6 and 12.5 respectively for boys and girls ages 6 through 8 (Baron-Cohen et al., 2001). Individual scores ranged from a minimum of 9 to a maximum of 24 out of a total of 28 items. Based on the class's average age— 6 years and 7 months—and available benchmarks for children almost two years older, it may be noted that participants displayed a solid understanding of complex psychological states, including emotions. In fact, 59% scored above the class's already above average mean.

In closing research question two, while each social understanding task targets a supposedly distinct aspect of ToM, the reality is that they present a more integrated view of children's social understanding. First, while the FB task is allegedly about beliefs or true perspectives, children must interpret and understand the character's complex psychological states, some of which are emotional, in order to grasp these perspectives in the context of the narrative. At the same time, the developers of the eyes test purport including complex psychological states, as captured by the following items: *disbelief* "incrédulo" and *thinking about something* "pensativo". As Ornaghi et al (2014) explain, FB and emotion understanding rely on the same skills of perspective taking, identifying mental states, and linking inner emotion with outward behavior. If the argument on shared underlying skills were true, then the first graders' discrepant results in these two tasks of social understanding brings even more support to the claim that the poor FB performance may be a task effect.

Other researchers exploring the relationship between emotion understanding and ToM among low SES children have also encountered significantly lower performances on FB tasks than in emotion tasks (Weimer, Sallquist, & Bolnick, 2012). They have

attributed these contrastive findings to the task arguing that FB tasks pose high processing demands. Like them, the correlational nature of the present study does not reveal a causal path and further research is warranted to ascertain the actual contribution of these components to children's social understanding.

Research Question 3: In What Ways Is Social Understanding Apparent in a Reading Event?

To discuss this question I relied on the oral stories collected through the wordless picturebook reading task in Phase One. This task served as an authentic reading event where the multiple skills that make up the phenomena of reading and social understanding came together naturally in a display of meaning making as a single yet complex activity. To use a metaphor, much like we may gain important insights a about a car by studying its isolated parts like the engine and its carburetor, we miss the intricacies of this modern marvel if we disregard the person that drives it and if we do not take into account the conditions of the road ahead. Such is reading. It occurs in a time and space, mediated by a particular technical tool, a symbolic system, and a meaning maker, a reader. In this case, the reading event consists of a first grader alongside me and the video recorder in a room reading *The Chicken Thief* via image and using the spoken word to mediate the reading.

This task facilitated the exploration of embodied reading activity where the various cognitive, social-cognitive, and experiential skills that play a role in meaning became tangible. I discuss first the picturebook reading task as source of information regarding children's reading; specifically, I address their understanding of narrative elements, their capacity to integrate information and employ reading strategies, and their

displayed investment with the text. Second, I discuss markers of social understanding that were also documented in their oral stories, particularly social imagination, relationship creation, and landscape coordination.

Narrative comprehension. The transcribed stories were analyzed using an adaptation of the narrative comprehension task developed by Paris and Paris (2003) and modified by Lysaker et al (2011). The analysis provides a picture based view of children's ability to comprehend narrative; one that complements the print-based comprehension data provided by the IRI. This inquiry is akin to my view that reading is not developmental or 'simple,' but complex non-linear symbolic activity that includes a range of symbolic system for expressing meaning. At the same time, it supports the argument that children's narrative understanding is key in learning how to read (Paris & Paris, 2003) and making sense of social situations (Bruner, 1986; Nelson et al., 2003). This particular analysis was completed using the children's stories, which ranged in length from 52 to 430 words (*M*=259.18; SD=113.45). The analysis revealed scores ranging from 5 to 34 (*M*=17 SD=9.307).

The first portion of the narrative comprehension task consists of *narrative elements* (See Appendix E for code definitions and Figure 7 for category examples). Children were allotted one point for every character and setting mentioned, and one point for each plot event for a total of three. Their performance was evaluated in terms of elements met with ease and difficulty, as suggested by its developers. This analysis is guided by my cultural-historical stance which considers that cultural tools like narratives may or may not be part of children's cultural tool kit and thus must be discussed in terms of how well they are appropriated (Wertsch, 1998). The easiest elements for the first

graders were identifying the characters, the setting, and the problem. Only one child

failed to mention characters and only one left out the setting. Most children encoded the

problem of the story with the exception of two. The initiating and concluding events were

the narrative elements of most difficulty with 8 and 12 children failing to identify them

respectively. Figure 3 presents the narrative comprehension coding scheme.

Part I. Narrative elements		Ejemplos en español	Examples in English
Character	Naming –noun, pronoun –roles (relationship)	–Pollitos, la gallina brown –Los hermanitos	–Chickens, the brown hen –The siblings
Setting	Place –Objects –Structures	–Yerba, árbol, boquete –Bote, casa de los animales, casa del zorro	– Tall grass, tree, hole, – Boat, animals' home, fox's home
Initiating event	Introduction highlighting characters' – Peaceful mood – Collectivity or relationship	–Estaban todo el mundo felices…todos los animales. –Esta era la casa, donde todos vivían. –Estaban tranquilos.	– Everyone, all the animals, were happy. – This was the house where everyone lived. – They were tranquil.
Problem	Rupture in state of affairs – Character's goal (fox's or the animal group)	–Se robó la gallina. –Lo quieren atrapar a él. –Rescatar a la gallina	–He stole the hen. –They want to catch him. –Rescue the hen
Conclusion	Solution	–Dejaron la gallina. –La consiguieron. –Ella se quedó con él. –Él sólo quería llevársela pa' hacer un party también.	–They left the hen. –They found it. –She stayed with him. –He only wanted her to make a party.
Part II. Story comments			
Temporal markers	Time words	–después, ahora, entonces, hasta, primero, de repente	– later, now, then/at that time, until, first, all of a sudden
Causal markers	Causality words	–a (para), y (explícitamente causal) , también, pa' que	– to, and (explicitly causal), also, so that

| Book language-storytelling language | –Denouement/closing language
–Transitional language
–Repetitive statements
–Intensity statement | –Había una vez
–Colorín colorado este cuento se ha acabado
–Se hizo de día
–Pensaron y pensaron
–Bien mojados | –Once upon a time
–And they lived happily ever after/ The end!
–It was daytime
–They thought and they thought
–Very wet |
| Dialogue | | –Él dijo "lo siento mucho."
–"¡Tengo una idea!" | – "I'm very sorry," he said.
– "I've got an idea!" |

Figure 3. Narrative comprehension categories

Based on this finding, they appear to be developing an understanding of episodic structure (Nicolopoulou & Richner, 2007) or goal-structure (Trabasso et al., 1992). These children show some understanding that stories represent the plight of a character trying to solve a situation introduced early in the story; characters in this case acting on a goal. On average the class showed mastery of 60% of the narrative elements, providing one plausible explanation for their low performance on the IRI's narrative passage. It is reasonable to speculate that the lack of constant exposure to printed narratives in the class and at home may have negatively influenced children's understanding of characters' mental life, particularly goal-oriented actions. Future studies may shed light on this interpretation since other researchers argue that most theories of early reading disregard narrative understanding and there is much to be understood about it (Paris & Paris, 2003).

The second part, *story comments*, assessed devices that help integrate story information into a cohesive whole transcending the individual page. Participants received one point for each instance of story comment. The majority of the class used a range of temporal and causal markers to connect events across time and characters across pages. A good number of them also made use of book/storytelling language. The most difficult

kind of story comment was quoted dialogue. Put another way, the first graders

incorporated a variety of devices key to producing stories that are internally connected.

They showed to varying degrees, the capacity to come up with the missing information in

the story, to draw their own connections. Being able to contextualize characters' actions

and establish how they are linked is an important cognitive tool said to help children

make meaning from events (Nelson, 1996). In short, goal-structure and not the ability to

connect events may have adversely contributed to children's narrative comprehension.

Meaning making strategies. As a second indicator of children's capacity to

mean from story I studied their use of meaning making strategies. The literature on

emergent reading suggests that meaning making strategies potentially influence ensuing

reading comprehension (Lysaker & Hopper, 2015). I was interested in seeing if the first

grader's low comprehension could be explained in terms of a lack of strategizing because

reading experts (Palincsar & Schutz, 2011) have identified strategizing as one activity

that struggling readers do not master. Nonetheless, the supposed non-reading participants

in the reading sub-skills demonstrated the purposeful monitoring of their developing

stories. For this analysis, I rely mainly on the image comprehension strategies that

Lysaker and Hopper (2015) drafted based on Clay's strategies for printed texts. The

analysis of the first graders' stories revealed the presence of 4 different strategies from 16

children with a total of 652 instances (M=40; SD=15.52) and a range of 9 to 70 instances

per child.

All participants used *searching* as main strategy (504 instances)— that is, they

constantly gathered information from the visuals (Lysaker & Hopper, 2015). All in all,

the first graders made over 381 *visual observations* where they mentioned an object's or a

setting's features or location. Conversely, they also labeled a character's physical

appearance, concrete actions, and states of being. All 17 participants used this strategy, as

shown in the excerpts below:

> Le está dando un beso a la gallina.
> *He is kissing the hen.*
>
> Éste está con la boca abierta.
> *This one has its mouth wide open.*

Vital to the process of gathering information were the use of pauses. Thirteen children

paused and scanned the images. Sometimes they did this through silence, as shown by the

ellipsis marker in the following excerpts:

> Y el zorro y la gallina ahí… durmiendo en paz.
> *And the fox and the hen there…peacefully asleep.*
>
> El oso… lo pusieron como si fuera un bote.
> *The bear…they put him as if he were a boat.*

Sometimes, these pauses helped them *cross-check* and confirm their ideas (Lysaker &

Hopper, 2015). Other times the pauses took the form of elongated words, such as

"esteeeee" *ummmm* and "yyyyyy" *annnnnnd.* Consider the following examples:

> Esto es un oso... éste es un oso… esteeee… es esto mismo pero otro.
> *This is a bear… This is a bear… ummmmm… It's the same kind but another.*
>
> Entonces, esteeee, se fueron con un bote.
> *Then, ummmmmmm, they left on a boat.*

In short, children gathered details about each page through an active process of carefully

observing, pausing, and checking in order to mean from the signs on the page.

A third strategy useful to their interpretive work was *rereading*; this strategy

seemed to help them gain grip on the story (Lysaker & Hopper, 2015). These 12 children

(32 instances) would stop, go back, read again the same brief section, and collect their

thinking about what would go next in their narrative. Sometimes a child would mention

an action or event, make a pause, then repeat that action or event but this time having added new information. For example: *They ran.… they ran to be able to catch up with her*. A similar scenario occurred in one of the final spreads where a child considered what to say to explain the fact that the bear was wielding a stick, leading her to the following reading: *The bear has a stick, the bear has a stick and the fox is afraid*. This pause helped her construct the emotional consequence of this action. Other times, the rereading seemed to indicate that the child had selected a character as point of departure but still did not know exactly what to say about it:

> Y él, y él no se dio cuenta.
> *And he and he did not notice.*

> Ellos dos, ellos dos encontraron una casa.
> *The two of them, the two of them found a house.*

> Some children also engaged in *self-correcting* (14 participants; 47 instances).

They made changes to what had already been articulated (Lysaker & Hopper, 2015). As shown next, some participants simply went back to refine an action:

> Aquí él se montó como si fuera también un bote que rebota… que flotaba en el agua.
> *Here he got on it as if it were a boat that bounces…that floats on the water.*

> El gallo estaba subien… sentado.
> *The rooster was climb…sitting.*

A final strategy used by the first graders to make meaning of the picturebook was drawing *inferences* (Palincsar & Schutz, 2011). Inference making refers to the implicit information added by the reader (Paris & Paris, 2003) as a result of his/her transactions with the text (Rosenblatt, 2009/1982). This activity of imagining something past that which is concrete, has been identified as an integral part of comprehending text (Palincsar & Schutz, 2011). The class's inference activity ranged from 1 to 14 instances (*M*=4; 97

instances). For example, as the readers observed the animals positioned in a circle in front of the fire place, they described the event as a party, a picnic, cooking, making breakfast, and the most popular: having a cup of coffee. In going beyond the tangible, children draw from their own experiential reservoir (Rosenblatt, 2008). They skillfully made use of their own semiotic resources to signify on the basis of their background knowledge and personal experience with the cultural tool book.

In summary, the first graders made use of a conglomerate of important comprehension strategies to attempt forming a coherent story. These strategies however, did not work independently as isolated resources for individual pages, instead they were metacognitive; helping monitor the general progression of the story (Lysaker & Hopper, 2015). Their strategic reading validates Rosenblatt's (2009/1982) claim that reading is a kind of *choosing activity* where some elements from the page and the individual are brought to the forefront and others are sent to the background. This capacity to surpass the page and to choose an object of attention also displays the kids' own agency in the reading event. They get to select what they want to talk about and they get to interpret it based on their interest or what they know. Altogether, their observations, pauses, corrections, additions, and attention to particular signs and pages are evidence that children controlled the story assuming an authorial role. This role strongly challenged the perception of reading ability set forth by the reading sub-skills' tests.

Expressive engagement. The first graders also claimed their ownership of the story in other ways. The next analysis however, is not so much concerned with the structure of the children's stories or the cognizing evidenced in their strategizing, it is closer to an *aesthetic stance* towards reading. Rosenblatt (2008) explained that all reading

falls within a continuum extending from efferent to aesthetic, both valuable positions for looking at texts, each providing an angle or guiding attitude for the reader-text encounter. When one reads aesthetically, the focus is on the experience itself and the pleasures of the text not on answering subsequent questions or telling an accurate story that follows an expected plot-structure.

Related psychological literature has supported the claim that children's motivation and attitude towards reading matters in learning how to read (Baker & Wigfield, 1999). The literature on reading engagement stipulates that reading achievement extends beyond cognitive skills, like the reading strategies mentioned earlier, and encompasses affective dimensions needed for deep involvement in reading activity (Guthrie, Wigfield, & You, 2012). This type of continued engrossment in literature has been linked to later success in reading (Cox & Guthrie, 2001; Skinner & Pitzer, 2012). Unfortunately, too often aesthetic stances and children's engagement in reading activity are disregarded in discussions of reading. From a cultural-historical standpoint, the extent to which children display enjoyment during reading is taken as indicative of their appropriation of this tool and suggestive of their previous experience with the symbolic tool of narrative.

I rely on Sipe's morphology of *expressive engagement*, developed from his extensive work with young children reading picturebooks, to frame the first graders' aesthetic reading activity. The analysis revealed a total of 29 instances of *expressive engagement* performed by nine participants. Children demonstrated their investment in the text in four different ways. For the sake of parsimony, I capture the aesthetic quality of the class's reading by focusing largely on the book scene with the highest occurrences

of these phenomena. In this particular spread, the fox and the chicken are featured on the verso floating away in a wooden boat; meanwhile the animal group is on the recto struggling to stay afloat on the bear. The first graders were fascinated with this scene.

Dramatizing (17 instances, 7 participants) was the most widely used type of expressive engagement. It comprised instances where children physically or verbally imitated a gesture, action, or movement inspired by the text (Sipe, 2002). For example, one child focused on a school of fish moving from the recto to the verso by imitating their bubbling sound: "los pecesitos estaban nadando blup blup blup" *the little fish were swimming bloop, bloop, bloop*. Another was drawn to the rising tidal waves— "venía una ola grande" *an enormous wave was headed their way*—and proceeded to trace imaginary large curvy lines through the air with her right hand. A third child imitated the hen's seemingly calm posture by leaning back on her chair, relaxing her body, and crossing her arms behind her neck: "Parece que la gallina estaba feliz porque estaba en un barco y podía mirar el sol así [imita la postura de la gallina]. Mira como está con las alas" *It looks like the hen was happy cause she was on a boat and could stare at the Sun like this [imitates hen's posture]. Look at how she placed her wings.* The class demonstrated its investment in the story through sounds, gestures, and body posture.

Another kind of expressive response consisted of what Sipe (2002) called *critiquing/controlling* (3 participants, 4 instances). This response encompasses (a) children who suggest alternatives to the plot, characters or setting, and (b) critique what is portrayed. Still referring to the ocean chase, one child blurted "yo no hago eso ni loca" *I wouldn't do that if I were crazy.* She was openly disapproving of the animal group's decision to jump into a choppy sea without a proper vessel and gear. This particular plot

event was something she did not sanction. Another participant was taken aback by the hen depicted as wearing sunglasses. She was quick to correct the illustrator's choice by arguing that "ninguna gallina tiene gafas" *Hens do not wear sunglasses.* As these two kinds of expressive engagement suggest, imitation and criticism offer useful alternatives for engaging a text.

A third way in which participants entered the world of the text was by doing what Sipe referred to as *insert[ing] oneself* (3 participants, 6 instances). This response is characterized by speaking as an insider to the events. The animal group's ocean predicament offered a good context for this type of engagement. Children inserted themselves by expressing fear and surprise, what the animal group must have been feeling too. One child for instance exclaimed "válgame" *Oh my goshhhh!*, another one simply screamed "Ahhhhh!". They were experiencing the text almost as characters themselves going through the struggle of staying afloat.

Talking back to the characters (2 participants, 3 instances) was the last kind of expressive engagement (Sipe, 2002). I transition here to another scene: the time lapse between the moment in which the fox and the hen hide inside the mountain and the next day when they dash out of it resuming the escape. The same child was responsible for both instances. First, he commanded the bear to get out of the dark tunnel leading to the fox and the chicken: "¡Sálgase!" *Get out!* He seemed to be warning the bear about the dangers ahead; you may fall in their fire pit. In the following scene taking place the next morning, he screams to the bear, rabbit, and rooster who slid slowly down the mountain side: "¡Tírate, tírate!" *Jump! Jump!* He talked to the characters as if they would hear him, as if his voice could have some effect on their actual behavior. In this sense, he was more

of an author or narrator who unlike the character has knowledge of what is happening in the next page, in the future. If they hurry they may catch the fox before he reaches the one available boat.

In summing up the reading portion of Research Question 3, the emergent perspective and holistic approach to reading in this task yielded a contrastive picture of the first graders' capacities to mean. The IRI's so-called nonreaders manifested the ability to monitor the unfolding meaning of their stories; a level of cognizing identified as characteristic of successful readers (Palincsar & Schutz, 2011). In fact, an Nvivo coding query showed that even the pre-primer level children corrected their oral stories in favor of an iteration that reflected their own vision. This finding supports the argument made by Lysaker and Hopper (2015) that we err in conceiving of reading as a skill that is foreign to children who are not yet decoding. These first grade non-readers were strategic and showed that emergent readers' skills can be capitalized on by teachers to guide them in the process of becoming conventional readers.

This cross-method disjunction also reiterates the value of the cultural-historical construct of *moments of action* (Wertsch, 1998). When we consider data as moments of a phenomenon, we open ourselves to plurality. Without such outlook, I would have disregarded the complexity of what different symbolic and social arrangements can reveal about children's knowledge. When we privilege print as symbolic system par excellence to evaluate children's reading capacities, as done in the sub-skills tests, we may overtly stress on what is lacking, disregarding in its entirety that much of value is already present: as shown in the WPBR-V task. Recall for example that several kids openly refused to read the IRI Passages but not one said no to a wordless picturebook.

Perhaps what such moment of action shows is resistance to the symbolic system of print not an aversion to the cultural tool book.

Reading conventionally defined—meaning working with letters, sounds, and words—are part of the knowledge areas they must master if they wish to become readers because by traditional definitions they are clearly not readers. If nonetheless, we treated children as symbolizers and readers of the world, which they already are, then we may instill in them much more positive perceptions of ability. This study serves as reminder to the reality that many flexible, creative, and passionate literate beings may never even be afforded the opportunity to join the group labeled the "bright" kids (Dyson, 2015, p. 205). I worry about the reverberations of our own definitions of reading and approaches to reading instruction on children from low means who at age six describe themselves as Jaalil did during the classroom observations: as *being plain dumb* "que bruto yo soy."

Even further, many of them savored the experience and read expressively showing profound engrossment with the text. They did authorial work, influencing the story through highly complex signification and imaginative work. The first graders acted out what they saw, provided criticism of the illustrator's choices, and became participants in the story who could talk back to the characters. This willingness to entertain the picturebook aesthetically suggests that children do not resist the entire cultural tool *book* but perhaps specific genres like the storybook that relies heavily on the symbolic system of print and social arrangements where reading means repeating what someone else has already stated. In short, the first graders are emergent readers with much to learn about print. They are capable to comprehend, and read expressively and aesthetically to create

oral stories. I transition here to the second part of Research Question 3, the social-cognitive activity that was evident in children's stories.

Social imagination-level one. I rely first on the construct of social imagination (Lysaker & Miller, 2012; Lysaker et al., 2011): the correlate of Theory of Mind needed to sustain a vicarious exchange in the world of story. Social imagination consists of the attribution of thoughts, feelings, and intentions to book characters. The analysis of the first graders' stories revealed 200 instances of social imagination in ranges from 4 to 25 (M=10; SD=6.45).

The top indicator of social imagination was the attribution of intentions to the various characters comprising 111 instances. All 17 participants imbued characters with varying intentions in ranges of 2 to15 (M=6; SD=3.77). An *intention* was defined here as consisting mainly of a verb showing intention, purpose, or agency. Here are some examples:

> Éste lo quiere atrapar.
> *This one wants to trap him.*
>
> Le iba a partir la cara a éste.
> *Was gonna beat this one up.*
>
> Él quería estar con el zorro.
> *He wanted to be with the fox.*

The second indicator of social imagination was *feelings* with 13 participants whose instances ranged from 1 to 15 for a total of 46 tokens (M=2; SD=3.53). *Feelings* are defined here as words that identify states of emotion or being, such as descriptions of characters as happy, upset, scared, and at peace. Here are some examples of the children's attribution of feelings to the different characters:

Él era el único que que estaba... enfogonao.
He was the only one feeling angry.

Se asustó rapidito.
He got scared quickly.

El zorro estaba feliz.
The fox was happy.

The last indicator of social imagination was the attribution of *thoughts* to the different characters. Seven children encoded 11 instances of *thought* in ranges from 1 to 3 (*M*=2). *Thoughts* are statements where the reader attributes a thought to a character from either a narrator or character position (Lysaker & Miller, 2012). The characters' voicing of a thought mainly takes the form of quoted dialogue resembling a speech bubble.

Y él dijo: "lo siento mucho".
And he said: "I'm truly sorry."

El gallo gritó: "que no que no le dieras"
The rooster yelled: "no do not hit him!"

Social imagination-level two. The first graders also displayed knowledge of *second level social imagination* (Arvelo Alicea & Lysaker, 2014). Their stories portrayed characters' awareness of the internal states of another. These fictional beings think about the feelings, intentions, or thoughts of those around them (Arvelo Alicea & Lysaker, 2014), what is known as recursive thinking (Flavell, Miller, & Miller, 1993; Hinchcliffe, 1996) or second-order Theory of Mind (Liddle & Nettle, 2006) in non-fictional and non-narrative book related contexts. Nine children displayed level-two social imagination in ranges from 1 through 6 for a total of 32 instances (*M*=1; SD=2.23). Certain social situations crafted by the children were particularly indicative of this level of social imagination.

In the context of the children's stories, the most perceptive members of the animal group would ask the rest to *look at something*. This kind of request requires the child to imagine the consciousness of *animal one*, the one making the request, as noticing something while at the same time imaging *animal two's* perspective as having a different line of sight or incomplete knowledge about the situation: "él le dijo a él que mirara pa allá" *He told him to look over there.* A second event indicative of level-two social imagination was *looking in a window*. This particular action attributes to the animal group awareness of the fox's intention to get away and the fox's thinking about this particular location as a good hiding spot: "Y entonces miraron a ver si estaba allí" *And then they looked to check if he was there.* A third example was the act of leaving *the hen*. This collaborative decision from the animal group requires each member to let go of its own feelings towards the fox. Further, it alludes to their understanding of the hen's true feelings or her intentions towards the fox, as suggested by this participant.

The fox and the chicken are also inscribed as highly complex beings. In the case of the fox, his state of fear in the final scenes presupposes knowledge of the other's intentions to harm him and of their feelings, their being upset. As one child put it: "Y se metieron y ups lo vió. Y él dijo: "lo siento mucho"' *They barged in and ooops he saw him. And he said "I'm very sorry."* Both fox and chicken are separately portrayed asking for forgiveness. This is yet another example of a complex psychological state because asking for forgiveness necessitates thinking about someone else's feelings as being hurt, or to recognize that one did wrong in someone else's eyes, feeling regret. Last but not least, for the chicken to actively defend the fox, her character is construed as perceptive

of the animal group's mistaken perception of the fox as thief: "Lo estaba defendiendo a él" *She was defending him.*

In brief, through their stories all first graders imagined characters that were endowed with some kind of mental state, including feelings, thoughts, and intentions. Through the use of social imagination, they created characters with distinct goals, emotions and behavior, and characters with the capacity to think about the mental states of other characters. Finding evidence of second level social imagination is quite impressive, especially when the developmental literature suggests that second level ToM, its equivalent in actual social interaction, develops throughout late childhood (Flavell et al., 1993). At the same time, its presence starkly contradicts the finding of developing understanding of ToM offered by the FB task.

In addition, the WPBR-V task shows that picture book elicited narratives may present a useful task to explore children's social understanding. Higher level ToM has received less attention from researchers, precisely because it is believed to develop later, and there is a scarcity of tests to measure it in young children (Liddle & Nettle, 2006). Finally, the children's stories provide some insight on what an understanding of mind looks like after the preschool years and reveals another gap in the literature with a focus on the onset of ToM before age 4 (Flavell, 2004).

Imagined relationships. Another manifestation of children's social understanding in the stories was the formation of social relationships. The first graders transacted with the symbolic and semiotic resources of the text to establish relationships among these thinking and feeling individual characters. In coding *relationships*, I

considered pronoun and noun use. I searched for nouns that suggested collectivity, such

as "ellos" *they* and "éstos" *these*, as in the following excerpts:

> Ellos se estaban riendo.
> *They were laughing.*

> Ellos cogieron el camino.
> *They took the path.*

> Éstos se van a ahogar.
> *These are gonna drown.*

I also noted nouns and descriptions that implied relatedness between characters, like

labeling characters as "dueño" *owner* or "hermanitos" *siblings*.

> Ésos eran los hermanitos.
> *These were the siblings.*

> La gallina otra vez se iba con su dueño.
> *The hen was going back to its owner.*

> Las tres gallinas, tenían pollitos
> *The three hens had chicks.*

Lastly, I looked for expressions of physical affect (Fernandez, 2011) between characters,

such as hugs and kisses.

> Y él va con ella durmiéndola.
> *And he carries her to sleep.*

> La gallina le dio un beso
> *The hen gave him a kiss.*

> El gallo y el zorro dormían juntos.
> *The rooster [sic] and the fox slept together.*

The coding of relationships revealed that the entire class crafted some kind of

connection between characters. There were a total of 164 instances ranging from 2 to 19

relationships per child. On average, every child imagined 8 relationships (SD=4.27). The

analysis of pronouns, nouns, and physical affect, yielded 12 different kinds of plausible

associations; these are listed on Table 4.

Table 4.

Kinds of Relationships Identified in the Class' Stories

Group to chicken (strong emotion upon her fate, rescuers)
Group to fox (hunt him, want to physically harm him)
Chicken to group (participant of their meal and home)
Chicken to chickens (kin)
Chicken to fox (she wants to be with him, defends him)
Fox to chicken (wants it)
Fox to chicken (fond of it, kiss, hug)
Fox to group (afraid of them, hides from them)
Rooster to chicken (owner, relative)
Rooster to fox (rivalry, jealousy)
All animals (without the fox were happy and close at first)
All animals (with fox grasp the misunderstanding)

In creating these relationships, the first graders imagined characters that acted on and interacted with one another, beings whose actions and reactions fluctuated with others'. To do this, children had to undertake a dialogic stance where individual character's emotional, intentional, perceptual, and epistemic perspectives existed alongside that of others. They had to reconstruct the voice of individual characters and contemplate if the next move would fit that perspective. In so doing, the participants engaged in intersubjective work (Fuchs & De Jaegher, 2009; Wertsch 1998). To bring to life these couplings and groups, the child must have envisioned or even inhabited these perspectives, these positions. They must have joined in dialogue or conversation with these imagined others. The complex linking required for such relationships to emerge also lead me to question the finding of the FB test suggesting that the first graders have beginning understandings of ToM.

Actual relationship. As an additional kind of perspective taking indicator, the first graders adopted what Fernandez (2011) calls a *narrator's voice*. They assumed the perspective of a narrator and used various devices to involve their audience. Sixteen

children told the story using this voice for a total of 219 tokens ranging from 1 to 35 instances (*M*=12; SD=10.03). Their audience, as shown next, was an immediately present one: the participant researcher.

A main contributor to this particular voice was the *interactional marker* (*M*=10; SD=8.91). Fernandez (2011) defines interactional markers as exemplary of the readers' direct efforts to engage the listener/viewer. These included phrases such as "mira!" *look here!*, pronouns like "él" *him* and "éstos" *these*. It also included conjugations were the actors' gender and number are implicit in the verb and must be pointed at physically while reading. Consider the following examples:

Mira como viene esa ola pa'cá.
Look at that wave coming this way.

Aquí también están quemando.
Here [they] are also burning.

Y ése estaba por aquí y ellos estaban corriendo.
And that one was over here and they were running.

These interactional markers do more than merely draw the audience's attention to the actual text as Fernandez proposes; I argue that in terms of social understanding, this language is suggestive of the children's assumed shared perception with the audience. Through the use of pronouns, the participants assumed that I too could see who and what they were seeing.

The next three markers of narrative voice showed that the first graders embodied a third-person narrator concerned with preserving the attention of his/her audience. For instance, they used *intensifiers* (7 participants, 18 instances) to augment the weight of an action, adjective, or statement (Fernandez, 2011). Here are some excerpts:

> Y to el mundo se asustó rapidito.
> *All of a sudden, everyone got scared.*
>
> Estaba[n] muy mojados.
> *They were very wet.*
>
> La gallina estaba muy contenta, igual que el zorro
> *The hen was extremely happy, just like the fox.*

These intensifiers achieved the goal of involving the audience in the ensuing action that was by no means plain to the reader. In using these markers, each child strived to communicate their own vision of the story, their envisioned gradient of each character's physical or emotional state. They knew that careful symbolic moves could produce this effect. They were turning what was meant to be an individual task into a collaborative language event. They were not just reading for me or for the video camera, they were reading with me, hoping I would share their vision.

A third device used by the class was *delimiters* (6 participants, 14 instances). These are words that help reduce the weight of an action, adjective, or statement (Fernandez, 2011). Some of the words used by the class to serve this function included "parece" *looks like* or *seems like*. Next are some such terms in the children's own words.

> Un tiburón? Válgate…Uyyy.. se parece un tiburón.
> *A shark? Oh my gosh! It looks like a shark.*
>
> Van pal barco yo creo.
> *I think they are heading to the boat.*
>
> Parece que ahí se iba a caer.
> *There, it looks like they were going to fall.*

These statements exemplify the child narrator's attempt to lessen the severity of an observation making their statements more substantial and open to the audiences' interpretation. Perhaps these allude to the possibility that the audience may interpret a

particular action or visual differently. Who knows? Her fish may look like a dolphin to me. It well may be their awareness that their statements may be critiqued by others.

The final element of a narrator's voice employed by the class was *repetition* (3 participants, 9 instances). As the name suggests, these imply the consecutive use of phrases or words to add emphasis (Fernandez, 2011). These may have been used by the first graders to indicate the lasting quality of actions, as in the following excerpts:

> Sube y se cae, sube y se cae
> *It goes up and down, it goes up and down*
>
> Siguieron corriendo y corriendo y corriendo.
> *They kept, running, and running, and running.*

Likewise, repetition may have been used by these young narrators to achieve the allure of a predictive text, to keep their audience engaged in the reading event, making them feel like they had a handle on what was forthcoming. They seemed to grasp that there is an allure to stories that must be provoked verbally by its teller/reader/creator. Again, a sensitivity to the representational and engaging aspects of language.

This tendency to adopt a narrative voice allotted the class' stories with a true social purpose (Dyson, 2015). It was taken as an opportunity to share a story with someone else. In choosing this stance, this personal goal, the first graders engaged in pro-social behavior (Fenning et al., 2011) showing a positive disposition and capacity to partake in social interaction. They established an actual social relationship with me, where the semiotic power of the cultural tool picturebook became the subject of our exchange mediated by the child's oral rendering and gestures. The approximately 900 instances of interactional markers demonstrate the social and shared quality of their storying.

Landscape coordination. As final insight into children's social understanding, I examined the wordless picturebook stories in search for the first graders' simultaneous reference to the *landscapes of action* and *consciousness* (Bruner, 1986). Landscape coordination was defined as segments from the story that did not address action alone, i.e., *what* happens, the setting, or the situational plot. Some children, for instance, mentioned plain actions, such as: "él salió corriendo y se llevó la gallina," *he ran and took the chicken.* At the same time, it could not be consciousness alone, i.e., *why* things are happening, information about the character's psychological states. Sample consciousness-only statements included: "El oso se enojó," *The bear got angry* and participants who simply listed emotional states while pointing at each character on the page "Triste, feliz, triste" *Sad, happy, sad*. A total of 12 participants were able to synchronize both landscapes in the story producing 63 segments where the *what* and the *why* were coordinated in ranges from 2 to 13 instances per child (*M*= 3; SD=4.13). Some examples of landscape coordination included scenes like the following:

> Y ellos vieron que él se llevó esta gallina y ellos señalaron, ellos se asustaron.
> *They saw that he took the chicken and they pointed, they got scared.*

In this statement, the child establishes a connection between the animal group's perception (i.e., what they see the fox doing) and how they react physically and emotionally: they signal and they feel fear. In other words, a physical action has a direct emotional reaction. The opposite is also true; consciousness affects characters' actions, as in the following excerpt:

> Ellos se iban a tirar, pero como tenía[n] mucho miedo...Ellos se deslizaron.
> *They were going to jump but since they were really scared…they slid down.*

In this case, the physical response created by the state of fear lead the animals to change their course of action to a safer perhaps more subtle one. The characters acted based on how they themselves felt or based on what they knew or had access to. Not all coordination was prompted by feelings or perception, in other occasions it also concerned the characters' goals too, as in the following examples:

> Ellos se fueron corriendo a cogerlo a él.
> *They ran to catch him.*
>
> Ellos dos estaban ahí porque querían regresarlo.
> *These two were there because they wanted to return him [sic].*
>
> Estaban persiguiendo a él. Pa buscar la gallina.
> *They were chasing him to find the hen.*

In these last examples, the children almost provided an explicit reason or justification for the characters' actions or their presence in a particular location. The goal of each action is clear.

The first graders' landscape coordination brings to their stories a deeper layer of coherence and integration. Unlike social imagination, which may result in the attribution of isolated thoughts, feelings, and intentions on a page, landscape coordination presupposes that such attribution will be explicitly and immediately connected with what characters are doing or experiencing at a given moment. Characters are actors and reactors to the world around them. This connectedness could not occur without the insight provided by social imagination: knowledge that characters' actions are imbued with mental states. This finding reiterates the claim made by Lysaker and Miller (2012) that SI has many reverberations for readers, including among them helping construct the landscape of consciousness. My analysis makes a contribution to this literature by checking on this claim with a larger sample not one case. More importantly, unlike the SI

proponents, my definition of consciousness is much more extensive, going beyond feeling, thought, and intention words, to include other aspects of consciousness, such as character's perception and knowledge (Fernández, 2011). What children imagine characters' know is equally insightful in terms of showcasing the characters' perspectives.

In closing the second portion of Research Question 3, what could be said about the children's social understanding across methods? In brief, much like the reading data disjunction across the reading tests and wordless picturebook task, the social-cognitive data also presents a complex picture. In the sub-skills tests, I described children who were struggling to identify the perspectives presented in the false belief task. Based on that performance, the sample was deemed emergent in its knowledge of false belief. The data from the WPBR-V show a different insight: these children display an understanding of perspective in multiple ways. At its most basic level, they do so by attributing SI to different characters, imagining how that solo individual may feel or think. At more advanced levels, they imagine and develop relationships across characters, showing a capacity to recreate and hold multiple perspectives in mind at the same time. This ability to hold multiple representations coupled with the knowledge that people's inner states guide their actions, allow the sample to express their stories through landscape coordination. They are fully capable of articulating how events, happenings, and behavior connect with what they imagine characters know, see, feel, think, and intend.

One way to explain this discrepancy is to adopt Fernyhough's (2008) claim: what truly matters in an understanding of others is our willingness to enter a dialogue with them. He argues that what matters most is not a perspective being factual, a belief in the

true sense of the word, but that we take it as this person's view of the world. It is this ability to contemplate our perspective alongside that of multiple others that is at the heart of social understanding. Like Fernyhough (2008) in his Vygotskian approach to social understanding, I also stress on the role of social interaction and experiences with the symbolic as framework to explain the emergence of nuanced social understanding.

Research Question 4: What is the Relationship, if any, between the Reading Experience of a Group of Puerto Rican Children and Social Cognition?

Research question four is discussed in two parts: (a) the quantitative findings from the reading and social understanding sub-skills, and (b) the quantized findings from the reading and social understanding coding of the WPBR-V task.

Quantitative findings from the sub-skills tests. Spearman's rho two-tailed tests revealed that some reading skills were positively and significantly correlated with social understanding ($p=0.05$). This positive monotonic relationship suggests that children's various reading sub-skills and their performance in measures of social understanding grow concurrently although not necessarily at the same rate. The Spearman rank order correlation (herein Spearman rho) was selected being a more appropriate coefficient for the available data set and one with fewer assumptions. Exploratory data analysis showed that several assumptions needed for a Pearson correlation were not met, including (a) an absence of a linear relationship between variables (i.e., TVIP and eyes test), (b) the identification of an outlier, and (3) a lack of expected homoscedasticity.[3] However, assumptions about the continuity of variables and normal distribution were met. Spearman rho correlations are robust to outliers which did not affect the already small

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[3] i.e., inspection of scatterplots did not show that variance along the line of best fit remained similar

sample size. In addition, since it is the coefficient that also includes ranks and ordinal data, it allowed for the integration of other measures of reading and social understanding to the analysis, i.e. the IRI and the FB task. The specific correlational findings for the entire sample of first graders (N=17) are discussed next and summarized in Table 5.

Table 5

Correlations of False Belief, Eyes Test, TVIP Score and IRI Sentence Level

		False Belief	Eyes Test	TVIP	IRI-Sentence
False Belief	Correlation Coefficient	xx			
	Sig. (2-tailed)				
	N	17			
Eyes Test	Correlation Coefficient	.189	xx		
	Sig. (2-tailed)	.469			
	N	17	17		
TVIP	Correlation Coefficient	.012	.510[*]	xx	
	Sig. (2-tailed)	.964	.037		
	N	17	17	17	
IRI-Sentence	Correlation Coefficient	.113	.428	.321	xx
	Sig. (2-tailed)	.666	.087	.208	
	N	17	17	17	17

Note: *$p<.05$, two-tailed. False belief uses raw total score; Eyes Test uses raw total score; TVIP = Picture Vocabulary Test; TVIP uses standard score; IRI = Informal Reading Inventory; IRI Sentence uses children's below and above grade level sentence performance.

Comprehensive vocabulary (i.e., TVIP) was positively related to both measures of social understanding: false belief and emotion understanding. However, comprehensive vocabulary had a very weak non-significant relationship with false belief: $r_s[17]=0.012$, $p=0.964$. This weak relationship could suggest that although comprehensive vocabulary is important to false belief understanding, other variables may mediate this relationship in narrative contexts.

Further, comprehensive vocabulary was moderately and significantly related to the participants' performance in the eyes test: $r_s[17]=0.510$, $p=0.037$. This result was surprising because extant studies have not found emotion understanding and

comprehensive vocabulary to be related (Weimer & Guajardo, 2005). In the Weimer and Guajardo study, comprehensive vocabulary did not make additional contributions after they controlled for age. It is relevant to point out that they interpreted their measure of vocabulary comprehension as an indicator of language ability not an aspect of reading; a trend in similar studies. Others have used picture vocabulary tests as indicators of verbal mental age in studies of emotion understanding with typically developing and autistic children (Franco, Itakura, Pomorska, Abramowski, Nikaido & Dimitriou, 2014). The emphasis of much emotion research has in fact been on such groups that struggle to read facial expressions. Thus, what we know about emotion understanding and social understanding in typically developing children from varied socioeconomic and language backgrounds is scant and oriented towards general language ability.

In the meantime, in explaining the general relationship between comprehensive vocabulary and social understanding from a cultural historical framework, one must return to social interaction as the locus of both indexes. In other words, these correlational findings tell us about more than just about social understanding and reading. They imply something about the first graders' past and present social experience. The first graders may have family members who involve them in talk about mental states (Carpendale & Lewis, 2004) or tailor their talk for them (Fernyhough, 2008): mind-minded adults. Their participation in such symbolically mediated social activity may help them grasp that people's inner world—their beliefs and emotions—undergird their actions. Consequently, this finding also reiterates the value of social interaction in moving individual consciousness forward.

The second finding is that children's emergent and conventional reading status is also related to some of the tests of social understanding. For this particular analysis, I used the leveled sentences component of the IRI because it had the widest range starting with non-readers and ending with participants who read sentences at the seventh grade level. The analysis revealed a weak non-significant relationships between sentence reading and the eyes test (r_s[17]=0.428, p=0.087) and a very weak non-significant one to false belief performance (r_s[17]=0.113, p=0.666). These findings suggest that reading words in context may be related to more nuanced understanding of false belief. One plausible explanation is that the ability to read longer more syntactically complex sentences may help children gain general knowledge of linguistic structures and increase their ability to grasp oral narratives such as those used in the false belief task.

In summary, the Spearman rho correlation coefficient revealed positive relationships between some of the measures used as indicators of the study's variables of interest. Reading and social understanding are associated to varying degrees ranging from very weak to moderate. Although the relationships between the phenomena of language at large and social cognition enjoys strong evidence (Astington & Jenkins, 1995; Miller, 2006; Milligan et al., 2007), these findings support the more recent claim that this relationship branches off to reading (Cassidy, 1998; Lysaker et al., 2011). While it is not possible to determine the source of this relationship on the basis of this design, one plausible inference is the presence of underlying cognitive mechanisms at the heart of both social understanding and reading.

In her reading research, Cartwright (2002, 2006) has argued that readers unlike non-readers employ a kind of cognitive flexibility that allows them to attend to multiple

aspects of print and the reading task at hand. Similarly, Paris and Paris (2003) sustain that reading necessitates of strategic processes, such as monitoring. It requires children to attend to multiple stimuli and monitor their attention (Grabe, 2009). Interestingly, ToM researchers have suggested that inhibitory control, the ability to navigate across various stimuli, (; Blair & Razza, 2007; Denham et al., 2014; Flavell, 2004) contributes to ToM. Further it has been identified as a unique contributor to emotion understanding (von Salisch, Haenel, & Freund, 2013). More research is needed to explore the interpretation that executive control may be a contributor to the relationship between reading and social understanding particularly among minority children like these first graders.

Quantized findings from the WPBR-V. As final analysis, I became interested in figuring out if the qualitative coding of the various reading and social understanding markers in the WPBR-V were related in anyway. After the entirety of the oral stories were coded, an external researcher coded 30% of the data. Percentage of agreement in the different coding categories of interest were as follows: narrative comprehension 100%, social imagination 92.30%, and landscape coordination 93.333%.

Spearman rho's two tailed correlations (*p*=0.01) revealed that the number of unique words in the oral stories and the child's narrative comprehension scores (both indexes of reading) were significantly correlated with landscape coordination and social imagination (both indicators of social understanding). For their analyses I created a composite score for social imagination by adding up the sub-codes of feelings, intentions, and thoughts.

The children's total instances of social imagination (SI) at level one had a very strong positive relationship (r_s[17]= 0.803, p=0.000) to the total number of unique words

used (WC) in the oral story. In other words, to the extent that children employed a higher number of different words to tell their stories, they also made more references to the inner world of characters in their stories. This finding helps establish one more parallel between reading and language and its role in social understanding: the larger a child's vocabulary, the more likely he or she is to name aspects of consciousness in a story. In addition, social imagination level one (SI) had a very strong positive monotonic relationship to total narrative comprehension (NC) (r_s[17]= 0.676, p=0.003). This finding suggests that the ability to form stories that are internally connected via narrative elements and other story comments is related to children's capacity to attribute thoughts, feeling, and intentions to imagined others. Going back to language, one plausible explanation is that as others have pointed out language is key to representing and meaning from social situations (Nelson, 1996). Another interpretation could be that connecting narratives via traditional elements and inferencing like "story comments" is important to social understanding.

For the last analyses, I considered landscape coordination (AC). To be included as such the excerpts from the oral stories had to be coded for both action and a form of consciousness, which could include knowledge, reasoning, or some other form of internal motivation for performing an act. Spearman rho's two tailed correlational tests revealed that the ability to coordinate narrative landscapes (AC) was significantly related to various reading indicators. There was a strong positive monotonic relationship between landscape coordination (AC) and unique word count (WC) (r_s[17]= 0.708, p=0.001). This finding suggests that children with longer more linguistically complex stories were also more likely to coordinate the landscapes of action and consciousness in their oral stories.

Similarly, there was a strong positive monotonic relationship between landscape coordination (AC) and narrative comprehension (NC) ($r_s[17]= 0.672$, p=0.003). The test reveals that a child who is capable of telling stories that cohere in terms of narrative elements and story comments is also more able to craft stories where the landscapes of action and consciousness coincide.

It is relevant to point out that while reading and social understanding were internally related, that is, they coincided with other coding categories in the same task, they did not correlate significantly with the scores in the other tests. At first, this finding seems to contradict the notions of synchrony in the development of ToM skills (Moll & Meltzoff, 2011) or underlying cognitive mechanisms in social understanding (Cartwright, 2006). However, as Astington and Jenkins (1995) have cautioned we may have to refrain from thinking of social understanding as an *undifferentiated whole* and consider that perhaps the various functions that make it possible ensue through sophisticated and sometimes different processes that may need varied theoretical explanations. Likewise, it is possible that the tests and tasks target different aspects of social understanding. Level one social imagination for instance is a composite of thought, feeling, and intention yet we cannot determine how many other mental states beyond emotions are included in the eyes test. The same happens for the landscape coordination coding in the oral story and the knowledge aspect of the false belief task. The false belief task measures understanding of a belief (what someone knows) whereas landscape coordination requires that the child imagines what someone knows and uses it to connect it to what those characters do. They may all simply represent various distinct moments of social-cognitive activity.

Research Question 5: What Opportunities Exist in Classroom Literacy Events, Particularly Reading, to Express/Rehearse Social Understanding?

As I transition to Research Phase Two, I turn to a social environmental context that influences the kinds of readers and social actors that children turn out to be. Specifically, I showcase a space known to be a contributor to children's reading and social understanding: the language classroom. I rely on the classroom observations and selected items from the individual interviews to speak of the kinds of opportunities that the participants have in the everyday to rehearse social understanding.

For years now, literacy scholars have described the classroom as premier context for becoming literate (Dyson, 1989) while reading experts (Sipe, 2002) have identified teachers as key players in children's learning to read. Likewise, psychologists (De Naeghel, Van Keer, Vansteenkiste, & Rosseel, 2012) have stressed the value of observing the classroom as space that establishes a reading program. Although classrooms are important in any discussion of early literacy, these spaces and their teachers gain a central role when we speak of children from low SES who may otherwise lack opportunities for traditional reading activities and materials (Carlson & Meltzoff, 2008; Engel de Abreu et al., 2012). As matter of fact, the individual interviews showed this to be the case for my first graders. When asked to mention enjoyable home activities no child included crawling into bed with a book or listening to bedtime stories. When asked about favorite book titles and authors only one participant provided an answer (i.e., *Angellina ballerina).* Three additional children mentioned having a few animal books at home (i.e., puppies and bunnies). Put another way, only 23% of the participants reported having books at home.

Schools are the cultural institutions where formal literacy competencies are acquired (Matthews & Cobb, 2005), specially for these groups. These institutions create the social environment at the heart of children's literacy development (Cole & Scribner, 1978). Knowing more about the kinds of interactions around literacy, and reading more specifically, in which the first graders partake allowed me to situate the finding on the relationship between their SU and reading capacities within the classroom's social and symbolic arrangements. Appropriation of symbolic tools and systems is subject to children's experience with them. For this reason, literacy scholars have stressed the need to document children's opportunities to use symbolic tools in spaces like classrooms (Dyson, 1989).

The first graders' second semester in the Spanish classroom along with its curricular sequence for reading, materials, and activities are the subject of this section. The Spanish classroom in Puerto Rico serves as equivalent to the language arts classroom in the United States. It is the place where children are meant to learn the ways of using their vernacular for communication and to further their learning.

Classroom's reading approach. Print reading was at the forefront of Ms. García's class. It was the first item on the agenda after calendar time and roll call. Ms. García would start reading activities with two songs on the Spanish alphabet consisting of the name of the letters and their sounds. The songs involved pronouncing the sound or name of the letter twice and then mentioning the object pictured in the alphabets displayed on the classroom walls: "T t de tambor" *T t as in tambourine.* Upon finishing both songs the class would shout twice: "Ay! ¡Que bueno es aprender a leer!" *Oh, learning to read is so good!* Letters and sounds had a prominent place in this space as

verbal indicator cueing children to the start of daily reading activities and as ever present visuals in their classroom.

The classroom's main source of reading content was a basal series purchased by the school administration and its xeroxed activity pages. The teacher's guide available online[4] revealed that Ms. García was following its scope and sequence, as is typical of basal instruction (Durkin, 1990). During observations 1 through 6, children worked on one of its stories, which they had read before my arrival called "Gato Félix, el taxista" *Felix the cat, taxi driver* and during observations 7 and 8 they worked on the next unit, which started with the story "El cumpleaños de Viviana" *Viviana's birthday*. All reading texts belonged to this basal, which prevented the class from experiencing diverse reading materials and genres. Reading scholars recommend supplementing basals with other texts so that children have opportunities for exercising higher-order thinking (Brown & Dewitz, 2014). They argue that the questions in most basals do not spur the kind of social interaction needed for insight into various perspectives. As another downside, the adherence to the large bulky basal also prevents students from comfortably manipulating the book, holding it in their hands or laps as they read, as something natural and of their own. Exposure to complex questions and interacting with books are activities of importance to an appreciation of the cultural tool book and the symbolic systems that make it possible (i.e., print and images).

They also could not authentically explore reading material because all book-child interaction was already mediated by the teacher's selected activities and the publisher. Reading in this classroom was an activity carried out on a desk and solely under teacher

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[4] http://www.edpanamericanapr.com/contenido/catalogo/espanol/pdf/guia-1.pdf

supervision. This limited the first graders' opportunities to explore the book, which could lead to learning about book handling skills. Reading in this classroom could be described as a structured activity outside of the children's control. This highly directed reading environment is problematic for various reasons. First, it promotes a passive notion of reading where active transacting with the text is not possible (Rosenblatt, 2008) and where valuable playful behavior (Crawford & Hade, 2000) is rendered a nuisance. Through its passivity, this approach homogenizes children's reading, robbing them of their agency (Dyson, 2015) in this daily activity. As literacy scholars have pointed out, such one-size-fits-all approaches to literacy, especially those focused on reading and writing print, have shown little evidence of improving the lives of diverse groups (Bloome et al., 2014; Gee, 1986). Any similitude with the autonomous model of literacy (Street, 1994) is definitely not a coincidence.

Typical reading activity. To gain a sense of typical reading instruction, I kept a running schedule of the day in my researcher journal where I noted the content of each activity. I transcribed the observations and marked all reading activity with a code such as *completing a worksheet*. Also, I coded them by visit: *observation period #*. Qualitative analysis of the field notes using Nvivo10 allowed me to run the matrix query: "Which reading activities were performed in each observation period?" The results are featured in ascending order in Figure 4.

	reading pictures	listening to a story	vocabulary discussion	reading a story	drawing or coloring	choral reading	completing worksheet
observation 1	0	1	0	0	1	0	2
observation 2	0	0	0	0	0	0	2
observation 3	0	0	0	0	1	0	1
observation 4	0	0	0	0	0	0	1
observation 5	0	0	0	0	1	2	1
observation 6	0	0	1	1	0	2	1
observation 7	1	0	0	0	0	1	0
observation 8	0	0	0	1	0	1	1
total	1	1	1	2	3	6	9

Figure 4. Typical classroom literacy activities

As shown in Figure 4, the activity that characterized classroom reading instruction was *completing worksheets*, taking place in all but one observation period. In these worksheets, children practiced writing out different letters, matching target lowercase and uppercase letters, and spelling vocabulary words. The "x" was a target letter and sound for the first six visits as hinted by the words in the unit's title: "Félix" and "taxista" *taxi driver*. Next was *choral reading* consisting mostly of reviewing the answers to closed exercises in the worksheets and two where children followed the teacher's reading of a passage.

As the worksheet and choral activities suggest, reading in the classroom placed heavy emphasis on learning letters, sounds, and words outside of a genuine context promoting in this manner correctness and form (Gonzales, 1980). Next are some excerpts that showcase the kinds of skills and dynamic that were commonly fostered in whole-class work around reading:

español	English
Ms. saca la franja y dice xilófono.	Ms. pulls out the flashcard and says "xilophone"
Ya en la pizarra, Gerardo y Joel la escriben.	Gerardo and Joel write it on the chalkboard.
Marcos trata de hacer observaciones acerca de las palabras.	Marcos tries to make observations about their writing
Ms. dice: Vamos a escuchar. Déjelos que ellos la lean	Ms says: Let's listen. Let them read the words.
Marcos menciona que hay algo mal con los acentos.	Marcos points out that there is something wrong with the stress marks.
Ms. pregunta: ¿Cual está correcta?	Ms asks: Which one is correct?
Karen dice: Ninguna porque no tienen acento y las f son grandes	Karen says: None because they don't have the stress marks and the f is uppercase
Ms pregunta: ¿En el medio de una palabra podemos usar una mayúscula?	Ms asks: Do we use uppercase letters in the middle of a word?
Ms pregunta: ¿Dónde lleva el acento?	Ms asks: Where does the stress mark go?
Marcos sugiere: en la f	Marcos suggests: On the f
Ms pregunta: ¿El acento en una consonante?	Ms asks: The stress mark, on a consonant?
Gerardo y Joel arreglan los acentos leyéndolas: xilóFono y silófono	Gerardo and Joel fix the stress mark and read them: "xilóFono" and "silófono"
Karen añade: tiene la s de sol	Karen adds: It has the s as in Sun
Ms refiere a Joel al abecedario	Ms. tells Joel to look at the alphabet
Joel substituye la s por la x.	Joel switches the s for an x.

On this particular visit (Observation #5), the class was reviewing for a vocabulary quiz.

They had already seen the word *xylophone* when the cat's story was read before the start

of the study. By then, I had visited the classroom for approximately three weeks and they

had seen this target word on multiple occasions in the different worksheets. Consider the

screenshot of the worksheet completed on Observation #3:

Figure 5. Worksheet on the x

The instructions read: *This is the letter x. When accompanied by a vowel it sounds like*

the s. Other activities on the word *xylophone* were conducted during Observation #5:

these included Ms. García's own alphabet soup
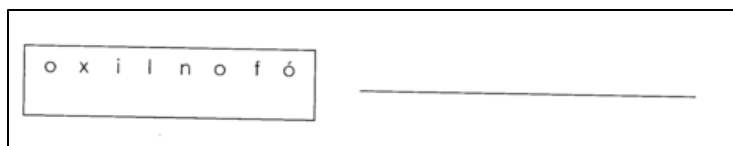
Figure 6. Ms. Garcia's alphabet soup

and a xeroxed sheet from the basal. In this last one, children were expected to read each

word out loud.

Figure 6. Worksheet on the x

On these sheets, children colored the actual musical instrument, organized the letters

needed to form the words, plugged in the x in the correct blank, and answered if the x in

xylophone and *taxi* had the same sound.

In addition to practicing target vocabulary words, their reading activity mostly

centered on sounds as these other excerpts show. This particular transcript belongs to

Observation #5:

español	*English*
Ms. dicta: "música"	Ms. dictates: "music"
Mayra y Amelia escriben: "nusica" y "muik"	Mayra and Amelia write: "nusica" and "muik"
Ms. sobre pronuncia cucucu	Ms. stresses the c sound
Ms aclara: Esta k se llama ka, tenemos que saber el sonido.	Ms. clarifies: This k is called ka, we have to learn their sounds
Ms añade: Para la m hay que pinchar los labios.	Ms adds: You have to pinch your lips hard for the m.

Ms wanted to correct Mayra's beginning consonant sound (i.e., the n) and Amelia's

missing final letter. Amelia had gotten confused thinking that the k functioned as its

name suggested in Spanish: sounding like it had an "a" accompanying it. Next is another

teacher-child interaction that occurred during Observation #6 as Ms. García decided to

build upon the alphabet song:

español	*English*
Ms. pregunta: ¿Cuáles son las letras con el mismo nombre y sonido?	Ms. asks: Which are the letters that share the sound and the name?
Katiuska lo intenta.	Katiuska attempts it.
Iveliz dice: las vocales.	Iveliz says: the vowels.
Ms las repasa tocándolas con la regla. ¿Y las demás que son? Suenan de una forma y se llaman de otra.	Ms reviews them and touches each one on the alphabet with her ruler. How about the rest? They sound one way and are named differently.
Gerardo contesta: las consonantes	Gerardo adds: The consonants
Ms añade: C y G suenan S y J cuando están con la I y la E	Ms. adds: C and G sound like S and J when they are accompanied by the vowels I and E.
Mientras practican los sonidos y los nombres Wisin falla muchas. Karen Iveliz y Gerardo las sacan. Dylan, Joel y Victoria no las practican	As they practice the various sounds and names, Wisin misses many. Karen, Iveliz and Gerardo get them right. Dylan, Joel and Victoria do not practice them.
Ms. pregunta: ¿Cuál de estas letras es transformer?	Ms. asks: Which one of these letters is a transformer?
Marcos dice: La J	Marcos says: The J
Ms señala: La Q, ¿es copiona de cuál? Ella señala C K	Ms points: The Q, is a copycat of which other? She signals C K
Ms explica cómo funciona la C (sonando k) en (ca, co, cu) y S con (ce, ci)	Ms explains how the C works. Sounding like a K in ca, co, cu and S in ce, ci.
Karen seña la B (por que hace b d p).	Karen signals the B because it looks like b d p.
Ms añade: Por eso es importante saber el sonido y la derecha e izquierda.	Ms adds: This is why it's important to know the sound and to distinguish from left to right.
Wisin señala la G con la ayuda de Ms.	Wisin signals the G with the teacher's help.
Ms pregunta: ¿Cuándo suena ge?	Ms asks: When does it sound ge?
Iveliz dice: Con la u	Iveliz says: With the u
Karen dice: La entrometida	Karen says: The nosy letter.
Marcos dice: Guerra	Marcos says: Guerra (war)
Iveliz sugiere: Gritar	Iveliz suggests: Gritar (to scream)
Karen sugiere: Guió.	Karen suggests: Guió (drove)

Their talk during this exchange featured the rules governing diphthongs for various

letters, encouraging children to identify sample words that showcased these particular

sounds.

Another point to be noted from that exchange is the teacher's and the children's

use of common made-up terminology for addressing letters. This was a result from Ms.

García's creativity and effort to help them in the process of remembering difficult letters and sounds. Ms. García employed the chants and phrases feature on Table 6.

Table 6.

Teacher Strategies for Difficult Sounds

español	*English*
Letras muditas	Mute letters
"'La maestra canta "la mudita no sonó [de hada]'"	The teacher sings "the mute did not talk [as in hour]"
Letras entrometidas	Nosy letters
"*qui* tiene la u de entrometida" dice Zoraida	*Qui* has the nosy u, says Zoraida
Letras 'transformer'	'Transformer' letters
"Marcos sugiere que la j es transformer." (e.g., jinete, Joel)	Marcos suggests that j is a transformer." (e.g., hog, jewel)
Letras copionas	Copycat letters
"Daniela dice que la s es copiona de la x y la z. Las señala con la regla."	Daniela says the s copied the x and z. She points at them with the ruler.

She had created catchy labels to categorize letters that shared certain qualities. The first graders had appropriated them too adopting her view on letters. The teacher's influence was evident in the children's own talk like Karen's reference to the *nosy letter* in the excerpt*;* serving as reminder on the importance of adult input to children's own literate activity.

Other times, Ms. García used directives in the form of "Es importante que…." *It is very important that….* Some of these directions were to get children to remember what to practice at home, including: uniting consonant and vowel sounds, following along with their index finger, learning the sounds, and distinguishing left from right (e.g., *b*, *d*). As suggested by the chants, memorable phrases like the kid's favorite 'the transformer letters,' and her directives, children were encouraged to gain practice in these sub-skills and to memorize the rules. Not once, during the observations, were children directed to bring a favorite book or assigned to read a book at home.

Children's perceptions of reading. Having an indirect idea of what reading

looked like to the teacher, I wanted to know about children's own view. Due to their lack

of agency in this process, I could not have learned of their interests otherwise. I asked the

first graders what they would like to do with reading. Some children (17%) simply

expressed wishing they could learn to read. Others (23%) yearned for a chance to carry

out reading freely. Katiuska said that she would like to perform a poem for the entire

class, Daniela stated that she would like to ask for permission to get a book, Kenny

expressed wanting to read what he liked, and Gerardo confessed wishing he had books

with smaller font, which he described as books for learning to read faster. As Dyson

(1989) has mentioned, children had their own purposes for partaking in the symbolic.

Some like the teacher spoke of reading conventionally defined. Others had different

perspectives on what they wished to accomplish with reading and what they enjoyed

doing with this skill. The interview provided a glimpse into the participants' own

perspective regarding reading.

In short, the classroom as premier space for reading instruction promulgated a

mainstream definition of what matters in terms of reading. Repetitive drill-like activities

with letters and words were one of its key activities. Being a reader was mainly defined

in terms of having knowledge about letters, sounds, and their integration. Passage reading

mattered primarily for the purposes of providing some common ground for the

forthcoming weeks of sub-skills' activities. Thus, it is only logical that reading stories did

not have a prominent place in this classroom. There were only four instances of *reading*

or listening to a story, as shown in Figure 4. In addition, the emphasis on the basal and its

worksheets helped cement the notion that reading images or creating them was not really

the point of reading. *Drawing/coloring* were optional unguided activities children could use to keep busy after finishing their actual work. Further, when *picture reading* was indeed practiced its role was secondary. Children used picture reading to make predictions about what the main text, the printed one, would reveal. In this sense, classroom reading activity was print oriented. Reading was measured equally for the entire class and it was an individual accomplishment.

Moving to the second component of this research question, opportunities for rehearsing or expressing social understanding were limited in this first grade classroom. Its space was not designed to facilitate the social interaction that is key to developing social understanding. All seats were oriented towards the front of the classroom where the board and the teacher's desk were located. Children would have to shift their bodies and heads to establish eye contact with a peer. The classroom was a very structured space. Seats were assigned and most classroom areas were out of bounds unless made available by teacher directive (e.g., going to the bathroom, writing on the board, and performing songs). The seating arrangements and control of classroom space limited children's possibilities for actual social interaction. There were no carpeted areas, circles, or tables for children to work together.

Due to this organization, and the fact that Ms. García spent anywhere from 6 to 7 hours a day alone with 26 first graders several of which received Special Education services, whole-class instruction was favored. Teacher-led questions and directives predominated and were accompanied by a restricted array of literacy activities. This point was emphasized earlier as I discussed typical classroom activities and presented various excerpts of teacher-child interaction. It is evident from these excerpts that most

exchanges between individual children and the teacher were brief and that children did not commonly respond to or expand on the answers provided by their peers. Further the structured nature of the class served to illustrate that the teacher was in charge of asking questions, and choosing topics, materials and activities. In fact a "text query" for the word "pregunta" *asks* yielded 21 references from which only two belonged to children.

When children were not taking part in whole-class instruction, they were working individually. This approach did not leave much room for genuine collaboration or for literacy activities to include children's purposes or interests. The only exception occurred when children finished their own work at which time they had two options: drawing/coloring their worksheet or tutoring a peer. Collaboration was in this way constrained to helping peers get the right answer on a worksheet; i.e., to achieve the teacher's goal not their own. In his borrowing of Smith, Trevarthen spoke of the human need to relate to others through motivating and invested creative activity; he said that:

> Our shared world does not depend upon self-made "object concepts" or any rationally built "Theory of Mind" in single obsessive heads. It does depend upon an intrinsically motivated *sympathy in action*, the "feeling of company," and upon creative pretense about the making of events and objects that "matter" (2009, p. 509).

Unfortunately, this classroom did not provide physical space or time for integrating students' interests. It was not ideal for the worthy task of allowing children to accompany each other in this process of learning to read of becoming literate.

In short, I did not observe planned and sustained opportunities for actual interaction between children or with the teacher. The classroom was not the ultimate

setting for engaging in conversation, the kind of communication that Carpendale and Lewis (2004) argue is important for gaining exposure to different perspectives. Sign mediated dialogue where opposing perspectives are manifest is needed for children to nurture an understanding of perspectives (Fernyhough, 2008; Meins et al., 2013). However, most teacher-child exchanges were aimed at prompting worksheet completion and meeting the goals of the particular reading unit as stipulated in the teacher's guide.

Social understanding was also hindered by a scarcity of opportunities for social imagination. The kinds of text read by the children during the observation periods were at times lacking in this regard. The passage that occupied six classroom periods consisted mainly of a narrator led story about a cat that drives a taxi. Character development in this story is extremely superficial; the only details are that Félix likes his taxi and stops at a music store which may suggest he likes music. There are no other obvious characters beyond some store witnesses who hear Félix trying to play different instruments and react by saying *how unfortunate*. The story seems to take place in a brief undetermined timeframe of minutes or hours between the cab and the store, and there is no developed setting either.

The plot consists of Félix driving a cab, stopping at the store, and then driving again. There is no goal-oriented plan, as is typical of the narrative genre (Fernández, 2007; Trabasso et al., 1992). More importantly, the story does not center on agentive characters with goals and desires to help children grasp that imaginary others are driven by mental states (Trabasso et al., 1992). This brief six-page story offers little in terms of enticing invitations to enter the landscape of consciousness, it presents no feeling, thinking, or motivated characters. In short, the superficial treatment of the main character,

the absence of characters that relate to Felix in any meaningful way, the lack of a story plot oriented around goals, and finally the absence of the landscape of consciousness do not qualify this story as context for rehearsing social imagination. Further the teacher did not encourage children to engage with the text in ways that would nurture their understanding of others, they were not inspired to relate to others (Lysaker et al., 2011) or to reflect on why they do what they do (Clare & Gallimore, 1996)—that is, to think of the relational and moral aspects of the story.

The second story which occupied observation periods seven and eight, was closer to the kinds of narrative which have been identified as conducive to social imagination. In this particular story, a young girl by the name of Viviana is planning her birthday party with her mom. From the get go the mother-child relationship is featured as a strong bond and it is clear that there are other important people in Viviana's life, she strives to make her own birthday invitations and plan a fun outdoor party. On the day of the party, the decorations are ripped out by strong winds and heavy rain threatening to ruin her special day. Viviana's mom comes to the rescue setting up the living room as their own private movie theater. In the end, the birthday girl and her friends have a wonderful time together.

The class period before Viviana's story was read offered the one obvious example that some form of social understanding may have been fostered in classroom reading events. On this day, Ms. García dedicated a substantial portion of the class to draw on children's background knowledge about birthday parties. She called on a variety of children and integrated their answers in a diagram on the board. Afterwards, she

encouraged them to observe the illustrations in the story and take turns to share what they

had noticed. The following exchange took place:

español	English
Kenny dice: el viento la está empujando [la piñata]"	Kenny says: The wind is pushing it [the piñata]
Ms pregunta: ¿Qué pasó ahí?	Ms asks: What happened there?
Kenny repeats his statement about the wind.	
Valeria añade: están triste… por la lluvia	Valeria adds: They're sad because of the rain
Marcos añade: porque se le mojó la ropa	Marcos adds: Cause their clothes got wet
Karen añade: no pueden hacer el 'cumple'	Karen adds They can't hold the party

Reading the images and listening to their peers' observations helped children to make

meaning of the characters' reactions. They determined collectively that Viviana was sad

and they sought plausible causes for her emotional state. They were accessing the

character's inner states, doing some social imagination work (Lysaker & Miller, 2012),

and they were attempting to coordinate the landscapes of action and consciousness

(Bruner, 1986). They were linking the events that led to the character's reaction or state

of being.

Here is another brief exchange that took place during this same activity:

español	English
Iveliz sugiere: carta para el correo	Iveliz suggests: a letter to the mail
Valeria baja la cabeza; Jesenia hojea; Diana hojea el libro	Valeria lowers her head, Jesenia and Diana browse the book
Ms dice: Comenten, opinen	Ms says: Make comments, give your opinion
Xaviel (apunta a la patineta y al taxi) dice: Cogieron un "rai" para echar la carta.	Xaviel (points to the skateboard and the taxi) says: They took a ride to send the letter
Kenny dice: Tiene una patineta	Kenny says: They have a skate board.
Laura dice: El buzón está feliz	Laura says: The mailbox is happy.
Marcos añade: Le dieron comida	Marcos adds: They fed it.

In this excerpt children showed the capacity to build on the imaginative scenario

proposed by someone else. They displayed aptitude to consider their perspectives. They

added reasons for characters' action that include their goal and they attributed human

emotions to an inanimate object. Beyond this one activity, typical classroom reading activity did not foster genuine interaction between children or between children and story characters.

The classroom observations suggest that the first graders did not have many opportunities to express or rehearse social understanding in this space. Actual social interaction was hindered by the constrained teacher-child exchanges, the established individual-oriented seating arrangement, and the lack of group work in general. Further, vicarious social interaction did not feature prominently during reading activity. There was very little reading of stories and a lacking emphasis on getting in the minds of characters to understand their situation, to infer their reasoning. While extant reading research (Clare & Gallimore, 1996; Lysaker et al., 2011) has demonstrated the value of teacher modeling on children's independent ability to connect and empathize with vicarious others during reading events, such was not the goal of reading instruction in this classroom.

CHAPTER 5. CONCLUSION

To bring closure to this multi-phase mixed methods study of first graders' reading and social understanding, I return to my cultural-historical perspective. Specifically, I revisit the construct of interpretive value in this dissertation, Wertsch's (1998) notion of *moments of action*. There is great benefit to seeing data points as instances that provide insight into the larger phenomenon of interest, and not as absolutes on their own. Such a perspective, opens the analysis to plurality and deeper understanding. It is essential to the work done in this dissertation because otherwise we may have disregarded the complexity of what different symbolic and social arrangements can reveal about children's capacities to mean from text and social interaction. In using this construct, I integrate the data across methods and phases into two sections (1) reading experience and (2) social understanding.

Main Findings

Reading experience. According to the conventional definition of reading that motivated the bulk of the tests and assessments administered during Phase One, the majority of the first graders are not readers. Their low performance in the concepts about print assessment showed that they are starting to develop skills related to print knowledge. In addition, the informal reading inventory revealed that they still lack the

ability to grasp what they read from print. These results support the claim that effective word recognition is an important precursor to reading comprehension (Grant et al., 2012). Their low CAP score offers one explanation for the struggle in comprehending the IRI passages: in the absence of print knowledge, the automated word recognition assumed by decoding is not yet achieved.

The data collected during Phase Two help situate the first graders' initial reading performance in the context of their home-based and formal literacy learning. The classroom with its repetitive drill-like activities established that valuable reading skills include having knowledge about letters, sounds, and their integration. Passage reading was largely defined as a kind of context that inspired sub-skills' activities. The emphasis on the basal and its worksheets helped portray visuals as secondary to print reading and reading as an individual event. Consequently, in the classroom the first graders were learning how to become conventional readers. At the same time, because they were never allowed to interact with books independently and all child-book interaction was mediated by the teacher, one can also argue that they were perceived as non-readers who had everything to learn from teacher directive. These moments of action—IRI, CAP, and classroom observations— presented a dire image of the first graders' reading capacities.

In addition, the children's responses in the informal interview also provided support to the assertion that perhaps what the first graders are missing is exposure to and access to print-based resources. Recall that only a small fraction of the sample reported reading books at home, a finding that substantiates the claims made by literacy scholars who have for decades now argued that literacy practices like book reading are exemplary of the kinds of interaction that characterize the daily life for certain cultural books

(Delpit, 2012). Likewise, the classroom materials were highly monitored, temporarily borrowed resources that belonged to everyone (e.g., the school administration, the local Department of Education, the teacher) but the child. The cultural-historical construct of *appropriation* (Wertsch, 1991) is quite useful to explicate why despite the reign of print in the classroom, print was yet to be appropriated by the first graders. The first graders expressed their desire to "learn to read" during the interviews, to read books for older readers, to choose a reading of their own. It is quite possible that in the early years, children's own interests and purposes for using the symbolic may play a large role on whether they appropriate a cultural tool. Unfortunately, in many classrooms and their assessments of literacy, there is no room for imagination (Dyson, 2015) and I would add children's agency.

The emergent and holistic approach to reading pursued in the WPBR task administered in Phase One yielded a contrastive picture of their ability to mean and showed that their investment in a task matters. The so-called nonreaders manifested the capability to monitor the unfolding meaning of their oral stories; a level of cognizing identified as characteristic of successful readers (Palincsar & Schutz, 2011). In addition, the narrative comprehension analysis revealed their growing knowledge of narrative elements and their capacity to employ a range of language to produce coherent stories (Curenton, 2004; Fernandez, 2011). The analysis of the wordless picturebook stories showed that close to 50% of the participants displayed evidence of having savored the experience and having read expressively. It is possible according to the literature on engagement and its positive effects on reading (Baker & Wigfield, 1999; Guthrie, Wigfield, & You, 2012) that their affective involvement with the picturebook may have

aided their narrative production. Their willingness to entertain the picturebook aesthetically suggests that these children do appropriate the cultural tool *book*. The fact that not one child refused to read it may indicate that what some of the children resist are genres like the storybook that rely heavily on the symbolic system of print. Their conflicting responses to the invitations to read the Informal Reading Inventory versus the wordless picturebook could rightfully be described in terms of *the affordances and constraints* (Wertsch, 1998) brought forth by each task. As you recall, the numerical reading tests keyed on the symbolic system of print as conveyor of meaning; by the contrary, the WPBR-V focused on image based sign systems. Thus, their willingness to read could be described with regards to print as a limiting symbolic system and pictures as one with larger affordances for the first graders.

Lastly, as I alluded to just a moment ago, we could also consider this disjunction across reading data to be a reflection of the reader's varying roles. On the tests administered in the first phase and portions of the classroom's activity during Phase Two, the expectation was that children would extract what someone else had already stated, whether author or teacher. This message in need of extraction seemed to be more often than not coded in a symbolic system that the children had yet to master. In other words, they were not positioned for success. This is despite the fact that researchers have signaled children's positionality in the field of literacy to have a large role in their success (Moje et al., 2009). In the WPBR-V the assumption was different; Readers were placed as agents and symbolizers who already knew how to mean. Accordingly, the participants *assented* (Gregory, 2009) to the invitation to create oral stories based on the wordless picturebook. The greatest majority used a narrative voice, an authorial position

from which they invited me to be the audience. At the same time, narrative voice could also be considered as exemplary of what Bakhtin (1981) called addressivity: an awareness of how one's own words may be received by others. In this manner, their reading activity had started to hint at the possibility that stories and picturebooks offered room for social work.

Social understanding. With regards to the formal tests of social understanding, the quantitative data showcased moments of action from cognitive accounts, such as Theory of Mind. In terms of one of ToM's core constructs, false belief, the first graders seemed to be developing an understanding of it. Moving to the test of emotion understanding, there was a contrastive result: the participants demonstrated a good grasp on the identification of emotions. Because these two moments of action revealed such conflicting outcomes and because these constructs share common underlying skills (Ornaghi et al., 2014), I reached the conclusion that the first graders' performance may suggest difficulties with the actual false belief test not the construct it measures.

The qualitative WPBR-V task followed a cultural-historical view of social understanding. It targeted social understanding not as made up of isolated indexes but as integrated aspects of a human consciousness (Vygotsky, 1987c, 2004/1997). In this view, mental functions such as speech, thought, and emotions are said to function dialogically, constantly influencing one another and bringing new possibilities to the individual. The corresponding qualitative analysis of the children's oral stories revealed that the first graders were capable of imagining characters that had feelings, intentions, and emotions; level one social imagination (Lysaker et al., 2011). This finding reiterated the morphology developed by Nicolopoulou and Richner (2007) who explained that children

are capable of imagining different kinds of characters, including those with complex states or personhood. The first graders also imagined characters who were aware of the consciousness of others showing second level social imagination or Theory of Mind in the world of story (Arvelo & Lysaker, 2014). The findings on social imagination at various complexity levels starkly contradicted the outcome of the false belief task that suggested still developing understandings of ToM. According to that developmental view, children must master basic insights about the human mind before they can attain the more complex ones (Flavell, 2000). However, if this premise were true then we should not be finding examples of ToM level two in children's narratives.

In brief, much like the reading data disjunction across methods (i.e., IRI and CAP versus narrative comprehension and meaning making strategies), the social-cognitive data also presented a complex picture. Through the quantitative data, I described children who were struggling to identify the perspectives a handful of characters featured in the false belief task. The WPBR-V data showed a different insight: These children have an understanding of perspective, as explained in social-cognitive accounts particularly those that endorse dialogic principles. For instance, Fernyhough (2008) argued that what mattered most to understanding others is our willingness to enter a dialogue with them. He claimed that whether a perspective is factual is irrelevant, what is important is our ability to take this perspective as someone's own view of the world. It is this ability to contemplate our perspective alongside that of multiple others that is at the heart of social understanding.

It is relevant to point out that the false belief and the wordless picturebook task have important differences. In the false belief task children are asked to name a

perspective at particular points in the story and they have one chance to do so. In the meantime, in the wordless picturebook reading task, there are many ways to showcase an understanding of perspective. Children can do so by voicing a particular character or by attributing thoughts to it. They may also describe how that character feels, what it can see, and even what it knows, according to the child. Alternatively, they may create, as most children did, relationships between these individual characters, making them act and react to one another and on the basis of their own goals. For both tasks, the child must recreate these perspectives internally; he or she must keep track of them as they unfold in the story and be able to express them verbally for the researcher. Certainly, this is not an easy thing to do and it reveals that the first graders do know about perspectives and have a dialectical consciousness where memory, speech, emotions, and thought, just to name a few, must convene so that they can make sense of the world around them.

Like Fernyhough (2008) in his Vygotskian approach to social understanding, I was also interested in this dissertation on the role of social interaction and the symbolic in the emergence of nuanced social understanding. For this reason, in Phase Two I considered the extent to which the classroom was a space where talk about perspectives and opportunities for interaction abounded. The classroom observations became another moment of action, one that suggested that there may not have been many opportunities to express or rehearse social understanding in that space. Actual social interaction was hindered by the constrained teacher-child exchanges, the established individual-oriented seating arrangement, and the lack of group work in general. Further, vicarious social interaction through stories did not feature prominently during observed reading activity. The reading of stories was scarce and lacked an emphasis on getting in the minds of

characters to understand their situation, to infer their reasoning. This is unfortunate because actual and vicarious social interaction provides the conditions for the kinds of exchanges where an appreciation of multiple perspectives may be nurtured (Clare & Gallimore, 1996; Lysaker et al., 2011; Meins et al., 2013). It is in the sharing of an opinion, in representing what one sees, knows, or remembers that learning about multiple ways to interpret the world may happen.

Limitations

This dissertation had some limitations, the majority of which resulted from the selected design and the decision to pursue a mixed method's study. With regards to the design, the correlational nature of the study does not allow the researcher to ascertain the actual contribution of the various tests and tasks to the phenomena of interest. I cannot for instance determine if emotion understanding and false belief covary or whether the production of unique words and not narrative comprehension is more valuable to level one social imagination. In addition, I must make the caveat that the small sample size (N=17) could have influenced the lack significance across various data sources. A larger sample would have yielded more variation, a quality of usefulness in quantitative analyses. Further, the small range of some tests, such as the false belief narrative task, may have also hindered the possibility of identifying important relationships across the variables of interest. Consider for example the false belief test (i.e., 1-3 points). Similarly, the classroom observations could be said to be brief (i.e., one month) limiting the researcher's capacity to learn more about children's reading activity.

Recommendations

These constraints illuminate some possible areas for improvement in future related studies, including: causal analyses like regression to determine the extent to which reading influences social understanding. Other quantitative considerations include conducting similar studies on reading and social-cognitive capacities with a bigger number of low SES minority children, studies that could yield appropriate effect sizes. Researchers could also administer a battery of false belief tasks, if they were interested in this component of ToM, to attain more extensive ranges and a larger composite score to be used in the analyses.

For some qualitative researchers, time spent in the research site is pivotal to describing the intricacies of the phenomena in the participants' lives. As such, I would recommend longer periods of observation in the classrooms that is so important to the literacy development of children from low means. Depending on one's theoretical perspectives, it may also be useful to check on the participants' reading and general language use in other contexts through ethnographic methods like home and community visits and artifact collection.

Implications

This dissertation has several implications. The first of which holds relevance to the field of literacy research in Puerto Rico. My library research revealed a scarcity of available literature on young Puerto Rican children's use of symbolic systems in the every day. It also revealed that the scant literacy research that is published, mostly in the form of master theses, takes place in schools dedicated to help teachers complete their teaching into practice components and college-level classrooms where young researchers

complete their graduate degrees. Despite the obvious immediate advantages of such

approaches for the researcher, it is of outmost importance that we extend the literacy

research in Puerto Rico to actual schools. It is only in this manner that we may document

the practices that abound, explore the connections between government educational

mandates and local teaching, and identify the strengths and needs of young pupils and in-

service teachers. The conduct of such research and its ensuing dissemination could be of

great use to schools like the one studied here, which was in its eighth consecutive year

not meeting yearly Federal metrics of progress. It could also present complementarity

data to the state mandated compulsory exams being administered in the third grade

(Departamento de Educación, 2014). Further it may help fill the void signaled by local

researchers who argue that the local Department of Education lacks adequate early

assessments of language abilities (Ferrer Muñoz, 2007) and is unable to supply needed

reading materials or programs (Cardona, 2007; Martinez Marrero, 2009) for its

elementary level students.

A second reverberation of this dissertation is towards the importance of

connecting literacy teaching to children's lives. Due to its contentious political

relationship with the US, Puerto Rico has witnessed a century of top-down policies

informing what the local populace must know and how they should learn it. Such policy

responds to the national goals of a geographically, culturally, and linguistically distinct

country. The inadequacy of such policies coupled with recent reports revealing the high

level of poverty experienced by our young (Rosado Ortiz, 2012) warrant that our local

researchers, teacher educators, and in-service teachers work together to identify the kinds

of educational experiences that will best serve our already underserved populace but

more importantly our poorest. Policies that originate from the bottom-up. As I showed

here, our poor children are readers of the symbolic and the social who often endure an

education not designed by people like themselves, an education that falls short in

addressing the skills they need to make it in the everyday, a system that does not

acknowledge their ways of knowing and reading the world.

A third implication of this work is the overwhelming evidence across methods

showing that literacy, particularly reading, is related to social understanding both

quantitatively and qualitatively. This finding, explained in research question four,

reminds us that while literacy is part and parcel of what we do inside the walls of a

classroom it has far reaching implications for the people that children turn out to be

(Gregory, 2009). Narrative in its myriad symbolic systems involves children in an

imaginary social world (Lysaker et al., 2011) where they may learn about multiple

perspectives and where they themselves may be changed as a result (Bertau, 2009), and a

space where action and consciousness are intricately connected (Bruner, 1986). At the

same time, children's social understanding, their knowledge about human action as

guided by perspectives, knowledge, emotions, and goals, offers an explanatory

framework for meaning from texts. Thus, as educators, we could aid young students in

the worthy task of becoming functioning members of society as we also advance in the

important professional goal of becoming literate in the ways of school.

As a final implication, I wish to suggest that the first graders' status as Spanish

speaking children formally learning English in school and socializing in the *translingual*

(Canagarajah, 2013) context that is Puerto Rico offers a plausible explanation for their

social understanding. Naturally, this is at the level of inference and should be

corroborated in future studies. Despite the absence of many social experiences largely associated with ensuing social understanding, such as actual mind minded social interaction in the language classroom, and exposure to the mental word via story in the classroom or the home, both the emotion test and the oral stories show dexterity in understanding the social world. Against these odds and under their low means status, it is difficult to disregard their language background as a plausible account. If related literature on language learning and bilingualism (Bialystok, 2011; Cheung, Mak, Luo, & Xiao, 2010) is correct in its reported gains in the areas of cognitive flexibility, and if the experience of languaging shares the invested cognitive work brought forth by this active symbolic work, then it may be a likely explanatory framework.

To bring this dissertation to a closure I must return to the beginning. If the conflicting findings across the multiple moments of the phenomena of reading and social understanding reveal anything is that what we choose to measure and how we decide measure it, is everything. Why must we be *obsessed* with the one test of ToM that children struggle with (Bloom & German, 2000, p. B29)? Why must we define reading as print based when we know that under this definition some children will never be called *bright* (Dyson, 2015, p. 205)?

Instead, based on the promising findings of the emergent reading analyses in the WPBR-V, I invite you to consider what these children can do and to reflect on how we may capitalize on such activity to attain what may be missing by conventional definitions. Too often in this effort to join the academic conversation, as is expected in our profession, we become concomitant of colonial practices. We are guilty of privileging certain response types and ways of thinking over others. It is one thing to define our unit

of analysis and to choose our key variables; it is an entirely different issue how we chose, which one is of most value. Following my cultural-historical framework and a pragmatic stance to mixed methods research I embrace the contrastive findings across methods and choose to refer to these low socio economic status first graders as skilled readers and dexterous social partners.

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APPENDICES

Appendix A. False Belief Narrative Task

Task introduction:

We're going to read together a book titled *Harry, el Perrito Sucio*. I will stop while we read to ask you some questions about what we have read so far.

Vamos a leer un cuento juntos que se llama *Harry, el Perrito Sucio*. Mientras lo leemos voy a pausar para hacerte unas preguntas acerca de lo leído.

Questions		Score
Control: What color was Harry?	Control: ¿De qué color era Harry?	
FB #1: Who does the family think the dog is? Who is the dog really?	¿Quién cree la familia que es este perro? ¿Quién es el perro en realidad?	___/1p
FB #2: Who does the family think this is? Who is it really?	¿Quién cree la familia que es este? ¿Quién es en realidad?	___/1p
FB #3: Who do the children think they are giving a bath to? Who are they really giving a bath?	¿A quién creen los niños que están bañando? ¿A quién están bañando en realidad?	___/1p
		___/3p

Appendix B. Classroom Observation Protocol

Some of the classroom events noted in field notes include:

− Teachers' choice of literacy activities (e.g., shared reading, individual stations).

− Types of reading materials (e.g., textbooks, picture books)

− Routine of activities for the day (if any)

− Classroom's predominant modes of representation

− Child's usage of these modes.

− Observations on which children may be outspoken or reserved during literacy activities

− Extent to which children make connections to books (e.g., links to characters, attribute meaning to character actions)

− Extent to which teacher presents reading activities as opportunities for social cognition

  − What types of texts do they read?

  − What types of questions are they expected to answer?

  − Is reading about recall? Decoding? Comprehending?

  − Who chooses the reading material?

  − Are books displayed somewhere? Do children get to interact with them?

  − Are children required to consider multiple perspectives?

Appendix C. Child Interview Protocol

Task introduction:

I am going to ask you a few questions because I am interested in learning about how children like you use reading and language. I will take notes to avoid forgetting what you tell me.

Voy a hacerte unas preguntas para saber más de cómo los/as niños/as como tú leen y usan idiomas. Voy a apuntar tus respuestas para que no se me olviden.

Questions in English	Preguntas en español
Rapport building:	Estableciendo confianza:
– Do you have any brothers or sisters? How old are they?	– ¿Cuántos hermanos tienes? ¿Cuántos años tienen?
– Who do you live with?	– ¿Con quién vives?
– What are some things that you like to do at home?	– ¿Qué cosas te gusta hacer en casa?
I. Reading perceptions:	I. Percepciones acerca de la lectura:
– Do you have any books at home?	– ¿Tienes libros en casa?
– Do you like to read?	– ¿Te gusta leer?
– Do you have any favorite books or authors? What are they? Why do you like them?	– ¿Tienes un libro favorito? Si, ¿Cuál es? ¿Qué te gusta del libro?
– Are you a good reader? Why or why not?	– ¿Te consideras un buen lector? ¿Por qué si/no?
– What do you do when you come to a word that you don't know?	– ¿Qué haces cuando encuentras una palabra que no sabes?
– What kinds of things do you do when you have reading at school?	– ¿Qué cosas haces cuando lees en la escuela?
– Do you think reading will be important to you in the future? Why?	– ¿Crees que la lectura será importante para tu futuro? ¿Por qué?

Appendix D. Script for Introducing WBPR-Verbal

Ya que hemos leído un libro juntos te voy a pedir que tú me leas uno a mí. ¿Qué te parece?

[Entregar libro al niño/a]

Mira el libro por un momentito. ¿Qué notas?

[Si el niño/a no se percata de que no tiene texto] Hay algo más. ¡No tiene palabras! ¿Me lo leerías usando las imágenes? Es que el autor no lo escribió, así que tú puedes inventar la historia.

[Esperar]

Ok. Vamos a empezar. El libro se titula "The Chicken Thief"

[Añadir] El título está en inglés y significa: El roba gallinas.

Ya que leímos el título y sabemos lo que dice, ¿Por qué no empiezas?

Adapted from Lysaker et.al., 2011

Appendix E. Narrative Comprehension and Examples

Description	Example español	Example English	Mal ejemplo	Non-Example English
Narrative competence codes (part 1): Paris and Paris, Lysaker et al adaptation				
characters (naming) – noun, noun phrase – roles	– Pollitos, la gallina brown – Los hermanitos	– Chickens, the brown hen – The siblings	– ellos – éste	– they – this one
setting (place) – Structures – Objects in that setting	– Yerba, árbol/palo, boquete/ huequito, piedra, montaña, ola/mar/ océano – Bote, casa de los animales, casa del zorro	– Tall grass, tree, hole, mountain, rock, sea – Boat, animals' home, fox's home	– oso flotando – palo	– floating bear – stick
initiating event (opening) Introduction to characters highlighting their: – Peaceful mood – Collectivity or relationship	– Estaban todo el mundo felices…todos los animales. – Esta era la casa, donde todos vivían. – Estaban tranquilos. – Ellos estaban este… divirtiéndose… comiendo… haciendo un party.	– Everyone, all the animals, were happy. – This was the house where everyone lived. – They were tranquil. – They were having fun, eating, making a party.	– Estaban un oso, una gallina y un conejo. La otra gallina, este…un perrito, y otra gallina, otra gallina, y otra gallina con unos pollitos.	– There was a bear, a hen and a rabbit. The other hen, a doggie, another hen, another hen, and another hen with some chicks.
problem – Rupture in state of affairs – Character's goal (fox's or the animal group)	– Se llevó la gallina. – Se robó la gallina. – Lo quieren atrapar a él. – Rescatar a la gallina – Pa' buscar la gallina – Corriendo pa' cogerla	– He took the hen. – He stole the hen. – They want to catch him. – Rescue the hen – Find the hen – Running to get her	– Saltando encima de una rama	– Jumping on a stick
conclusion – Solution – Must match the stated problem. – Cannot be allotted in the absence of a clear problem	– Dejaron la gallina. – La consiguieron. – Que se la dio – Ella se quedó con él. – Él sólo quería llevársela pa' hacer un party también.	– They left the hen. – They found it. – They gave it to him. – She stayed with him. – He only wanted her so they too could make a party.	– Se hicieron amigos – Se disculparon – Ellos venían pa'ca – Abrazándolo – Se pusieron felices – Se sentaron – Se fueron/ se van	– They became friends – They apologized – They were coming this way (leaving) – They're hugging – They got happy – They sat down – They left

goal-oriented plan (label spanning initiating event, problem, and conclusion rows)

temporal markers	–después, ahora, entonces, hasta, primero, de repente, ya, todavía, mientras	– later, now, then/at that time, until , first, all of a sudden, now/already, still/yet, meanwhile
causal markers	–a (para) y (explícitamente causal) , también, pa' que, pero, porque, pues, o, aunque	– to, and (explicitly causal), also, so that, but, because, so, or, although
book/storytelling language –Denouement/closing language –Transitional language –Repetitive statements –Intensity statement	–Estaba todo el mundo feliz –Estaban tranquilos –Esta era la casa donde todos vivían –Había una vez –Colorín colorado este cuento se ha acabado –Se quedan juntos para siempre/ Vivieron felices para siempre/ ¡Fin del cuento! –Se hizo de día –Hasta que una vez –Sin querer queriendo –Pensaron y pensaron –Siguieron corriendo y corriendo –Ahora sí que están al ataque. –Bien mojados –Muy cansados.	– Everyone was happy –They were tranquil –This was the house where everyone lived –Once upon a time –And they lived happily ever after/ The end! –It was daytime –Until one day –Accidentally, on purpose –They thought and they thought –They kept running and running –Now, they're truly charging! –Very wet –Really tired
dialogue with marker –"he/she said"	–Él dijo "lo siento mucho." –El oso dijo "no." –"¡Al ataque!" –"¡Tengo una idea!"	– "I'm very sorry," he said. –"No," said the bear. –"Charge!" –"I've got an idea!"

(Story comments)

VITA

VITA

ZAIRA R. ARVELO ALICEA

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EDUCATION AND CREDENTIALS
2015   **Ph.D., Curriculum and Instruction**, Major: Literacy and Language Education; Strand: English Education, Purdue University, West Lafayette, IN
- Dissertation title: First graders as sensitive social partners and skilled readers
- Doctoral advisors: Dr. Judith Lysaker and Dr. Janet Alsup

2009   **M.A., English Education**, University of Puerto Rico at Mayagüez. Summa Cum Laude
- Thesis title: *Mayormente las nenas*: Gendered discourses in online and offline educational settings

2006   **B.A., Secondary education**, Emphasis: English Education. Specialization: Educational technology. University of Puerto Rico at Aguadilla. Magna Cum Laude

2013   **Certificate**, Teaching English Language Learners in k-12. Purdue University

2009   **Certification**, Teacher of English for the Secondary School. PR Department of Education

2008   **Certificate**, Teaching assistant development and support. University of Puerto Rico at Mayagüez

HIGHLIGHTS
SECTION A. Teaching/Learning: Experience developing educational materials and curricula at various grade levels. Knowledge areas include functional grammar, reading in the early years, English language arts (ELA), and children's literature. Areas of expertise: English as a new language and teacher preparation to meet the needs of English Learners (ELs).
SECTION B. Discovery: Ability to work independently and collaboratively with interdisciplinary teams to conduct research, co-author manuscripts for publication and conference proceedings, and secure external funding. Experience in all research stages from conceptualization to dissemination of results. Knowledge areas include: mixed methods and measures of reading and teaching effectiveness. Areas of expertise include: qualitative methods and literacy research with varied populations.
SECTION C. Leadership and Service: Sensibility to the needs of local communities as demonstrated through the development of educational and cultural programs. Area of expertise: using cultural stories and local practices to promote literacy development. Positive disposition to engage with colleagues at the department and institutional level and participation in local and national professional associations.

SECTION A: TEACHING/LEARNING
1. Instructor – English Department at the University of Puerto Rico, Aguadilla (UPR-Ag)

Fall 2015   *INGL 3101: Basic English 1.* Full responsibility for three sections, including
Fall 2014   preparation, delivery, and evaluation.

2. Teaching Assistant - College of Education at Purdue University and English Department at the University of Puerto Rico Mayagüez (UPRM)

Jan. 2013-   *EDCI 370: Teaching English as a new language* (Senior level). Teach theoretical
May 2013   foundations, legal precedents, and strategies relevant to work with ELs. Coordinate and supervise prospective teachers' field experiences in different schools. Mentor prospective teachers and provide feedback on their lesson plans and classroom materials.

Aug. 2009-   *EDCI 311: Media for children (Junior level).* Assist course's professor in lecture
Jan. 2012   hall. Deliver recitation once a week to two sections. Focus on current theories and applications of multicultural children's and young adult literature. Develop plans and materials for our weekly meeting and grade students' work (e.g., essay exams and lengthy research papers).

3. Teaching Assistant - English Department at the University of Puerto Rico Mayagüez (UPRM)

Aug. 2007-   *INGL 3103: Intermediate English I.* Full responsibility for two sections.
Dec. 2007

Jan. 2007-   *INGL 3104: Intermediate English II.* Full responsibility for two sections.
May 2007

Aug. 2006-   *INGL 3201: English composition and reading.* Full responsibility for two
Dec. 2006   sections.

4. K-12 Experience with ELs in Indiana-[See Education and Credentials/2013 Certificate]

Jan. 2013-   *Pull-out ELL classroom 6th and 7th grade.* Observed a small group of ELs from
May 2013   Japan and China. Located classroom materials to be read further along in the semester, developed a series of lessons targeting the linguistic patterns used in these texts to convey content and taught them. Happy Hollow Elementary School

Aug. 2011-   *Mainstream kindergartner classroom.* Observed an EL in a class of mostly
May 2012   Hispanics, created a case study of her productive and comprehensive skills in English, developed content-area lessons, and taught on selected occasions. Edgelea Elementary School

Aug. 2010-   *Pull-out ELL classroom 7th through 11th grade.* Generated lessons based on the
Dec. 2010   needs of a varied group of ELs (e.g., Korean, Russian) as documented in observations and delivered lessons on selected occasions. West Lafayette Jr./Sr. High School

5. Contributions to Course and Curriculum Development

Jan. 2012-   *Multicultural children's literature.* Developed the proposal, budget, and general
May 2012   syllabi for a hybrid summer course for in-service teachers in conjunction with the editorial board of Purdue's journal *First Opinions, Second Reactions.* Purdue University, West Lafayette, IN

*June 2009   INGL 0066: Pre-basic English summer institute. Designed syllabi, teaching materials and units, and delivered four hour lessons with fellow co-lecturer and research team.

*June	INGL 3102: Basic English II
2008-May	INGL 3101: Basic English I
2009	INGL 0066: Pre-Basic English summer institute. Assisted course's professor, developed and piloted teaching materials and units, provided in-class scaffolding to students, and taught the courses on selected occasions.
*May 28, 2008	Teacher Training Program: Beyond the curriculum. Co-developed and administered a day of training for in-service teachers and professors.
Jan. 2006- May 2006	12th grade English course. Developed a curriculum based on the academic language demands in tasks expected of marketing and tourism majors, taught daily under supervision of mentor. Juan Suárez Pelegrina High School, Aguadilla, PR.

Note: (*) This curricular development was part of a larger research project [See Section B/Research Experience/Advancing English Language…]

6. Knowledge of Instructional Software and Asynchronous Platforms
Software: Microsoft Suite (i.e., Word, PowerPoint, Excel)
Asynchronous Platforms: WebCT, Blackboard, Moodle, TaskStream

SECTION B. DISCOVERY
1. Awards - Sponsored by Purdue's Graduate School
2013-14	Bilsland Dissertation Fellowship *$53,800.00*
2013-14	Susan Carlson Harbridge Graduate Scholarship in Literacy and Language $*1,000.00*

2. Grants - Research and Travel
Sept. 2014	Dean's graduate student travel support *$200.00;* Sponsored by Purdue's College of Education
Nov. 2013	International innovative community group (ICG) travel grant *$730.00;* Sponsored by the Literacy Research Association (LRA)
Oct. 2013	Graduate student travel award *$250.00;* Sponsored by Purdue's Department of Curriculum and Instruction
Sept. 2013	Dean's graduate student travel support *$200.00* [See this section/Sept. 2014]
Dec. 2012	Purdue graduate student government (PGSG) travel grant *$1,000*
Sept. 2012	Dean's graduate student travel support *$300.00* [See this section/Sept. 2014]
Aug. 2012	Conference on English Education (CEE) cultural diversity grant *$500.00;* Sponsored by the National Council of Teachers of English (NCTE)
Oct. 2011	Conference on English Education **(CEE) research initiative grant** *$2,000;* Sponsored by the National Council of Teachers of English (NCTE). [See Section B/Research Experience/ Latino/a families-English educators' partnerships…]

3. Publications
Cortés Santiago, I. & **Arvelo Alicea, Z. R.** (in press). A conversation with Latino/a families and its implications for teacher beliefs about cultural and linguistic diversity. In L. C. de Oliveira and M. Yough (Eds.), *Preparing teachers to work with English language learners in mainstream classrooms.* Information Age Publishing and TESOL Press.

Arvelo Alicea, Z. R., Cortés Santiago, I., & de Oliveira, L. C. (2014). Witty Latina grandmas, silly skeletons, and birthday cakes: A library program focused on bilingual literacy. *Indiana Libraries Journal, 33*(1):16-18.

~de Oliveira, L. C., **Arvelo Alicea, Z. R.,** & Cortés Santiago, I. (2014). *Moviéndose a través de* languages and literacies through code-switching in a community literacies event. *Journal of Higher Education: Outreach and Engagement, 18*(4): 157-176.

Arvelo Alicea, Z. R. (2013). A biographical, literary, and scholarly treasure on the life of Pura Belpré. [Professional review of the book *The stories I read to the children*]. *First Opinions, Second Reactions, 6*(13), 7-9.

Arvelo Alicea, Z. R., & Cortés Santiago, I. (2013). *Al otro lado del puente*: Fostering partnerships between academia and Latino/a communities. In L. C. de Oliveira (Ed.), *Teacher education for social justice: Perspectives and lessons learned*. Charlotte, NC: Information Age Publishing.

~Arvelo Alicea, Z. R. (2012a). A functional approach to errors in texts written by English Language Learners. *INTESOL Journal*, *9*(1), 79-89.

~Arvelo Alicea, Z. R. (2012b). Invitational history in Margarita Engle's "The Poet Slave of Cuba: A Biography of Juan Francisco Manzano." *The ALAN Review*, *40*(1), 64-69.

Arvelo Alicea, Z. R. (2011). Magical realism meets biography. [Review of the book *The dreamer*]. *First Opinions, Second Reactions, 4*(2), 33-35.

Note: (~) are peer reviewed publications. *The Alan Review* is a top tier journal in English Education with an acceptance rate of no more than 23%.

4. Presentations – State, National, and International Level

Arvelo Alicea, Z. R. (Aug. 2015). *A mixed methods' study of Puerto Rican first graders: Who qualifies as a reader?* Poster presented at the conference Conferencia Avances en la Investigación y Acción con la Niñez y Juventud (CAIANJ). Mayaguez, PR.

Cortés Santiago, I. & **Arvelo Alicea, Z. R.,** (July 2015). *Teaching and visualizing literacy to support culturally and linguistically diverse learners.* Paper accepted for the meeting of the Conference on English Education. Bronx, NY.

Arvelo Alicea, Z. R. (May 2015). Exploring the bilingual advantage: Children's multimodal meaning-making of a picturebook. Paper presented at the meeting of the Western Puerto Rico TESOL chapter. San German, PR.

Karimi, N., Cortés Santiago, I., & **Arvelo Alicea, Z. R.,** (May 2015). Neoliberalism and higher education: Narratives of brown women teaching assistants. Paper accepted for the International Conference on Gender and Education: Critical Issues, Policy And Practice. Bloomington, IN

Lysaker, J. L., & **Arvelo Alicea, Z. R.** (Dec. 2014). *Picture books as dialogic contexts: Exploring relational invitations in text and image.* Paper accepted for the Literacy Research Association annual conference. Marco Island, FL.

Aglazor, G., **Arvelo Alicea, Z. R.,** Cortés Santiago, I., Karimi, N. (Nov. 2014). *Brown teacher, white students: teaching challenges and opportunities in the U.S. Teacher preparation classroom.* Paper presented at the annual convention of the National Council of Teachers of English. Washington, DC.

Carleton Parker, L., Adedokun, O., **Arvelo Alicea, Z. R.,** Lee, S., Morris, R., & Weaver, G. (Oct. 2014a). *Barriers to sustainability of course reform encountered by faculty at a research university*. Paper accepted for the American Evaluation Association annual conference. Denver, CO.

Carleton Parker, L., Adedokun, O., **Arvelo Alicea, Z. R.,** Lee, S., Morris, R., & Weaver, G. (Oct. 2014b). *Culture, policy and technology: Barriers reported by faculty implementing course reform.* Paper accepted for the Transforming Institutions: 21st Century Undergraduate STEM Education Conference. West Lafayette, IN.

Arvelo Alicea, Z. R. (Mar. 2014). *My family, my country, and I don't need rescuing.* Paper presented at the conference "Language Speaks Us" Language and Identity organized by the College English Association - Caribbean Chapter. Mayagüez, PR.

Lysaker, J. L, Hopper, E. & **Arvelo Alicea, Z. R.** (Dec. 2013). *Cross case analysis of social imagination in kindergartners' wordless book readings*. Paper presented at the Literacy Research Association annual conference. Dallas, TX.

Arvelo Alicea, Z. R., & Cortés Santiago, I. (Feb. 2013). *Pre-service teachers reflect on the role of Latino/a families in literacy education*. Paper presented at the annual meeting of the American Association of Colleges for Teacher Education. Orlando, FL.

Lysaker, J. L, Miller, A., & **Arvelo Alicea, Z. R.** (Nov. 2012). *Engagement in picture books, social imagination and intersubjective relationships*. Paper <u>accepted</u> for the Literacy Research Association annual conference. San Diego, CA.

Arvelo Alicea, Z. R., & Cortés Santiago, I. (Nov. 2012). *Enhancing ELLs' reading skills through music, storytelling and digital media.* Teaching demonstration conducted at the annual convention of the National Council of Teachers of English. Las Vegas, NV.

Arvelo Alicea, Z. R., & Cortés Santiago, I. (Nov. 2012). *Making meaningful connections in English education: Latino/a families-English educators literacy partnerships. CEE research award roundtables.* Paper presented at the annual convention of the National Council of Teachers of English. Las Vegas, NV.

Carleton Parker, L., Adedokun, O., Dooley, F., Pistilli, M., Weaver, G., Campbell, J., **Arvelo Alicea, Z. R**., & Morris, R. (Oct. 2012). *Developing, implementing and assessing large-scale redesign effort at a research university: Tales from the IMPACT initiative at Purdue University*. Paper <u>accepted</u> for the Assessment Institute in Indianapolis. Indianapolis, IN.

Arvelo Alicea, Z. R., (June 2012). *Mutiny in award winning Latino/a children's literature*. Paper presented at the annual Children's Literature Association Conference. Boston, MA.

Arvelo Alicea, Z. R., & Cortés Santiago, I. (Mar. 2012). *Moviéndose a través de languages and literacies through code-switching in a community literacies event*. Paper presented at the meeting of the Purdue Linguistics Association Annual Symposium. Lafayette, IN.

Arvelo Alicea, Z. R., & Cortés Santiago, I. (June 2011). *Female agency, collaboration and children's literature as doorway to literacy development and social justice for minority children and youth.* Paper presented at the meeting of the Conference on English Education. Bronx, NY.

Arvelo Alicea, Z. R. (Nov. 2010). *Beyond errors in ELLs' writing*. Poster session presented at the annual meeting of the Indiana Teachers of English to Speakers of Other Languages. Indianapolis, IN.

Arvelo Alicea, Z. R. (Apr. 2010). *Instructional choices: Sanctioning ELLs' vernacular in the English language classroom*. Paper presented at the meeting of Purdue University's Graduate Student Symposium on ESL Research. West Lafayette, IN.

Arvelo Alicea, Z. R. (Mar. 2010). *Language policies and English education in Puerto Rico: A historical and political perspective*. Poster session held at the meeting of Purdue University's Annual Graduate Educational Research Symposium. West Lafayette, IN.

Mazak, C., Rivera, R., Soto Santiago, S. L. & **Arvelo Alicea, Z. R.** (June 2009). *English language learning for Agriculture majors: Assessing learning and teaching.* Poster <u>accepted</u> for the annual meeting of the NACTA/SERD Conference. Stillwater, OK.

Arvelo Alicea, Z. R. (Feb. 2009). *Blogging in the English class.* Paper presented at the meeting of the conference English as a Field of Change and Flow: Contemporary Practices and Research in English Education, Literature, and Linguistics. Mayagüez, PR.

Arvelo Alicea, Z. R. (Nov. 2008). *Redefining classroom participation: The traditional perspectives of educators and the wide-ranging conceptions of students.* Paper presented at the Puerto Rico Teachers of English to Speakers of Other Languages annual convention. Rio Grande, PR.

Arvelo Alicea, Z. R., Mazak, C., Rivera, R., Santiago Vega, K. M. & Soto Santiago, S. L. (Nov. 2008). *Understanding the discrepancy between teachers' assumptions and students' technological literacies*. Paper presented at the Puerto Rico Teachers of English to Speakers of Other Languages annual convention. Rio Grande, PR.

Arvelo Alicea, Z. R., Santiago Vega, K. M., & Soto Santiago, S. L. (Nov. 2007). *Students' perception of their own performance: A comparison of self-assessment vs. performance assessment*. Paper presented at the Puerto Rico Teachers of English to Speakers of Other Languages annual convention. San Juan, PR.

Note: (Underlined) conference proceedings indicate a paper that was authored not presented.

5. Selected Invited Talks- Purdue University, UPRM, UPR-Ag

Arvelo Alicea, Z. R. (Sept. 2015). *Opening to the pleasures of Reading: Using wordless picturebooks.* Research presented at the UPR-Ag undergraduate course: Children's Literature. Aguadilla, PR.

Arvelo Alicea, Z. R. (Nov. 2013). *Mixed methods: A reading and social cognition example.* Research presented in the UPRM graduate course INGL 6006: Research Methods. Mayagüez, PR.

Arvelo Alicea, Z. R. (April 2013). *Narratives of immigration.* Narrative shared in Purdue's undergraduate course EDCI 28500: Multiculturalism and education.

Lysaker, J., & Arvelo Alicea, Z. R. (Dec. 2012). *Toward a relational model of (fiction) reading engagement*. Research presented at Purdue's College of Education Research Colloquium.

Arvelo Alicea, Z. R. (Sept. 2012). *Managing and analyzing qualitative data*. Software demonstration presented at Purdue's College of Education Graduate Student Research Group.

Arvelo Alicea, Z. R. (Mar. 2012). *Instruction Matters: Purdue Academic Course Transformation's faculty development*. Research presented at Purdue's Discovery Learning Research Center.

Arvelo Alicea, Z. R. (Feb. 2011). *Reading and English language learners.* Teaching demonstration presented in Purdue's undergraduate course EDCI 42200: Teaching English in the secondary school.

6. Research Experience
6a. Co-principal investigator

Oct. 2011 -present   *Latino/a Families - English Educators partnerships for the literacy development of underrepresented youth* (English Department, Purdue University). We developed literacy workshops with Latino parents and prospective teachers in a community center to explore their knowledge about literacy practices, perceptions on what their roles are in this process, and to document the extent to which collaboration furthers these understandings. We crafted the research design, secured external funding, conducted the study (i.e., initial interviews, workshop debriefings, written reflections), and are currently analyzing and writing findings.
− Arvelo Alicea, Z. R., & Cortés Santiago, I. (Feb. 2013). [See Section B/Presentations]
− Arvelo Alicea, Z. R., & Cortés Santiago, I. (Nov. 2012). [See Section B/Presentations]

− [See Section B/Grants – Research and Travel/Oct 2011]

Aug. 2011
-present
Discussion Group: Conceptions of literacy within Latino/a families (English Department, Purdue University). We coordinated the recruitment of local Latino parents through a community organization to partake of a later literacy program informed by the knowledge gathered from a pre-program focus group with families. We generated the research design and instruments (i.e., focus group protocols), analyzed the pre-focus group and released the results and are now in the process of evaluating the effectiveness of the program by analyzing post-focus group data.
− Cortés Santiago, I., & Arvelo Alicea, Z. R. (in press). [See Section B/ Published Manuscripts]
− [See Section C/Funded Community Service-Learning Programs/Conversatorio…]

6b. Graduate research assistant

Oct. 2011
-present
Reading and social imagination: A developmental study (Department of Curriculum and Instruction, Purdue University). This study examines how an understanding of others is manifested in k-2nd graders' readings of picture books. Data collection: video record children's book readings, annotate literacy interviews, conduct reading and developmental assessments, and visit multiple schools to interview individual children. Data analysis: co-development of coding sheets, code book, and conceptually derived coding schemes for textual and video recorded data, inter-rater agreement with research team, and preparation and maintenance of project's research unit. Dissemination of findings: co-authorship of conference proceedings and development of submitted academic manuscripts.
− Lysaker, J. L. & Arvelo Alicea, Z. R. [See Section B/Manuscripts in progress]
− Arvelo Alicea, Z. R. & Lysaker, J. L. [See Section B/Manuscripts in progress]
− Lysaker, J. L. & Arvelo Alicea, Z. R. (Dec. 2014). [See Section B/Presentations]
− Lysaker, J. L., et al., (Dec. 2013). [See Section B/Presentations]
− Lysaker, J. L., & Arvelo Alicea, Z. R. (Dec. 2012). [See Section B/Selected invited talks]
− Lysaker, J. L., et al., (Nov. 2012). [See Section B/Presentations]

Jan. 2013
-May 2013
Measures of effective teaching (MOET) (Educational Psychology Department, Purdue University). This project used the measure Classroom Assessment Scoring System (CLASS) to determine the effectiveness of kindergartner teachers' science literacy lessons. Training: certified CLASS rater. Data analysis: scored measures of teacher effectiveness utilizing video recordings of multiple classrooms and compared scores with team members to achieve inter-rater reliability.

Jan. 2012
-Jan. 2013
Instruction matters: Purdue academic course transformation (IMPACT) (Discovery Learning Research Center, Purdue University). This campus-wide project prepares faculty to implement student-centered pedagogy in redesigned college courses and assesses their implementation. Data analysis: analyzed qualitative data using content analysis, created project's research unit to conduct descriptive and comparative analyses of pre-and post-program participation and experiences with course redesign and application. Dissemination of findings: synthesized results of qualitative analyses, assisted in communication of results to project committees (e.g., internal reports, executive summaries) and others.

    – Carleton Parker, L., et al., (2014a). [See Section B/Presentations]
    – Carleton Parker, L., et al., (2014b). [See Section B/Presentations]
    – Arvelo Alicea, Z. R. (Mar. 2012). [See Section B/Selected invited talks]
    – Carleton Parker, L., et al., (Oct. 2012). [See Section B/Presentations]

Sept. 2007 -June 2009	*Advancing English Language learning for Food and Agricultural Science majors* (English Department, UPRM). The project implemented content and technology-based English language arts curricula to increase the retention and graduation rates of Agricultural Science majors. Research design: co-developed research instruments (e.g., interview protocols), and co-authored consent forms and IRB protocols. Data collection: recruited participants and collected data (e.g., needs assessments, focus groups, classroom observations). Participated in early stages of data analysis and represented project at national conferences. – Mazak, C., et al., (2009). [See Section B/Presentations] – Arvelo Alicea, Z. R., et al., (Nov. 2008). [See Section B/Presentations] – Arvelo Alicea, Z. R., et al., (Nov. 2007). [See Section B/Presentations]

6c. Research software knowledge
Nvivo 10, Atlas.ti, Microsoft Access

SECTION C: LEADERSHIP AND SERVICE
1. Funded Community Service-Learning Programs

Feb. 2012	*A celebratory approach to university-Latino/a community engagement: A conversation, a showcase and a celebration $1,500.00.* Organized a showcase in partnership with a local community college to display educational products created by Latino parents in a series of literacy workshops.
Sept. 2011	*Conversatorio: Sharing our conceptions of (bi)literacy through reflective conversations with Latino/a families $470.00.* Organized a discussion group with Latino families at a local community center to explore conceptions of home literacies. Knowledge gained from this dialogue was integrated in a series of workshops with the families and a research study. [See Section B/6.Research experience/6a.co-principal investigator/ Aug. 2011-present] – Cortés Santiago, I., & Arvelo Alicea, Z. R., (in press). [See Section B/Published manuscripts]
Feb. 2011	*Bridging gaps between library services, academia and the community in Latino/a children's literacy $1,000.00.* Coordinated a program with personnel from two universities and local Latino families that included (1) a workshop at a community center on immigrant experiences and the education of Latino children in the United States, and (2) a library program to foster Latino children's bilingual literacy and expose them to high quality Latino children's literature. – de Oliveira, L. C., et al. (2014). [See Section B/Published manuscripts] – Arvelo Alicea, Z. R., et al. (2014). [See Section B/Published manuscripts] – Arvelo Alicea, Z. R., & Cortés Santiago, I. (2013). [See Section B/Published manuscripts] – Arvelo Alicea, Z. R., & Cortés Santiago, I. (Mar. 2012). [See Section B/Presentations] – Arvelo Alicea, Z. R., & Cortés Santiago, I. (June 2011). [See Section B/Presentations]

Note: Programs were funded by three grants from Purdue's Vice Provost for Engagement under the *Student Grant Program for Community Service/Service Learning Projects*. They were developed from inception with a fellow doctoral student.

2. Selected Volunteer Service to the Community, Indiana

Feb. 2013   *La verdad acerca del corazón para la mujer*. Held culturally relevant literacy activities (e.g., reading Latino stories) with a group of Latino children while parents attended a workshop. Hanna Community Center, Lafayette, IN

July 2012   *The big dreams of a frog /Los sueños de un sapito.* Developed a library program, co-created a narrative with young children (i.e., read aloud) and created templates for children to communicate visually and through print. West Lafayette Public Library, IN

July 2011   *Songs and games from Latin America*. Developed a library event, adapted and memorized a folktale for a bilingual performance, prepared visuals to encourage children's choral repetition, and held a storyteller's workshop. West Lafayette Public Library, IN

3. Academic Service and Engagement

Aug.2014-Dic. 2014   Member of Assessment Committee. English Department, UPR-Ag

Aug. 2013-May 2014   Member of Language and Literacy research group. College of Education, Purdue University

Jan. 2012-Jan. 2013   Member of Assessment Committee. Discovery Learning Research Center, Purdue University

Aug. 2012-Jan. 2013   Planner/Facilitator of initial orientations for temporary research assistants to the IMPACT project. Discovery Learning Research Center, Purdue University

Aug. 2011-Jan. 2013   Member of ELL's graduate student research group. College of Education, Purdue University

2002-2004   President of the undergraduate students' Honor's Association. UPR-Ag

Note: For details on project that promoted the Academic Service and Engagement efforts between Jan. 2012 and Jan. 2013 in the DLRC, [See Section B/Research Experience/Instruction Matters…]

4. Affiliation to Professional Organizations

2013-present   Literacy Research Association (LRA)

2013-present   American Educational Research Association (AERA). Special Interest Groups (SIGs): Second Language Research; Research in Reading and Literacy; Hispanic Research Issues; Family, School, Community Partnerships

2013-present   International Literacy Association (former IRA)

2011-present   National Council of Teachers of English (NCTE)

2011-present   Conference on English Education (CEE)

2007-09; 2014-present   Puerto Rico Teachers of English to Speakers of Other Languages (PRTESOL)

2007-09; 2014-present   Western Puerto Rico Teachers of English to Speakers of Other Languages (Western PRTESOL)

5. Professional Activities

2014-present   Member of the *Novel Conversations* Spanish-Speaking Advisory Group. Indiana Humanities

2014-present   Conference proposal reviewer. AERA annual meeting. SIG: Research in reading and literacy

2013-present   Puerto Rico's liaison. LRA's international innovative community group

2013-present   Conference proposal reviewer. LRA's annual meeting

2012-present   Graduate student guest reviewer. *English Education Journal.* CEE/NCTE

6. Selected Professional Development

6a. Online

Sept. 2013   *Mixed methods research analyzing survey data with Nvivo.* QSR International

Nov. 2013   *Nvivo: Introducing auto coding by example.* QSR International

6b. University level-Purdue University, Indiana

Nov. 2012   *English learners visualizing science: The chain of semiosis.* Career and Technical Education Research Seminar

Sept. 2012   *Purdue conference for pre-tenure women.* Butler Center for Leadership and Excellence

6c. University level-UPRM and UPR-Ag

Nov. 2014   *Changes in the Puerto Rico Core Standards (PRCS) and Puerto Rico Core Curriculum (PRCC).* Department of Education's Aguadilla district, UPR-Ag

Oct. 2014   *Elaboración de propuestas: ¿Cómo nos beneficiamos todos?* UPR-Ag

April 2009   *Using qualitative data in quantitative research.* Centro de Enriquecimiento Profesional, UPRM

April 2008   *Teaching Assistant Development and Support (TADS) Certificate.* English Department, UPRM (30 contact hours)

Feb. 2008   *La tercera raíz en tercer grado: un estudio etnográfico sobre racismo institucional en la escuela elemental.* Centro de Enriquecimiento Profesional, UPRM

6d. State and national level

April 2014   *The role of technology in the art of storytelling.* Western PRTESOL. UPR-Ag

May 2012   *Celebrating teaching.* IRA 57th annual convention. Chicago, IL

Nov. 2011   *NCTE centennial: Reading the past, writing the future.* Annual convention. Chicago, IL

Nov. 2009   *Indiana TESOL 2.0: Innovations in pedagogy and technology.* Indianapolis, IN

June 2008   *54th Annual NACTA/SERD conference.* North American Colleges and Teachers of Agriculture. Logan, UT

Nov. 2003   *Finding common ground.* National Collegiate Honors Council. Chicago, IL

7. Language Skills

Able to comprehend and communicate readily in both English and Spanish