UC San Diego

UC San Diego Electronic Theses and Dissertations

Title

Sociocultural Early Literacy Practices in the School and Home Context: The Role of a Digital Library

Permalink

https://escholarship.org/uc/item/1j95c5k2

Author

O'Connor, Wendy Lynn

Publication Date

2017

Peer reviewed|Thesis/dissertation

eScholarship.org Powered by the California Digital Library
University of California

UNIVERSITY OF CALIFORNIA, SAN DIEGO

Sociocultural Early Literacy Practices in the School and Home Context: The Role of a Digital Library

A dissertation submitted in partial satisfaction of the requirements for the degree
Doctor of Education

in

Teaching and Learning

by

Wendy Lynn O'Connor

Committee in Charge:

Carolyn Huie Hofstetter, Chair
Gail Heyman
Alison Wishard Guerra

2017

Copyright

Wendy Lynn O'Connor, 2017

All rights reserved.

The Dissertation of Wendy Lynn O'Connor is approved, and it is acceptable in quality and form for publication on microfilm and electronically:

_____

_____

_____

Chair

University of California, San Diego

2017

Dedication

To my grandson, Kaiden.

You were three and a half years old when I started this journey.

At that time you barely knew your ABCs or how to write your name.

Now you can read chapter books and write your own stories.

I have enjoyed learning together these past four years.

This study is a dedication to you because

you represent the joy

that literacy learning

can bring to all young people

and the adults in their lives.

Epigraph

To the world you may be one person;

but to one person you may be the world.

-Dr. Seuss

Table of Contents

List of Figures

List of Tables

Acknowledgements

I would like to acknowledge all of my colleagues who have participated in this journey. Craig for helping me get the necessary approval to do the study and for helping me gather the individual student data. Mindy for always being a sounding board, editor, and cheerleader. Teachers, principals, parents, and staff, for completing surveys and participating in interviews at the schools where I collected my data. Maria for completing all of the Spanish translations. Bicky for helping set-up the interviews. My superintendent and supervisors in Curriculum and Instruction for always supporting my endeavors as both an employee and a student. I appreciate each and every one of these people!

I would like to thank and acknowledge my husband, three daughters, grandson, and parents for understanding and supporting my desire to advance my education. I hope my passion for learning will be the legacy that I leave with each of them.

I would like to thank my cohort: Mimi, Myette, Elena, Sharon, Marina, and Phil. They have been an incredible support network. I couldn't have done it without them.

I would like to thank and acknowledge Juan and Shawn for providing specialized services. Juan, for conducting my Spanish interviews and translating them into English. Shawn, from Sigma Squared Consulting, for helping me with the HLM analysis.

Finally, I would like to thank and acknowledge the EDS faculty, staff, and my dissertation committee. I learned more from them in these four years than I have in my entire life. I appreciate how willingly they shared their knowledge, insights, and resources with me. A special thank you to my chair, Carolyn Hofstetter. She has been an amazing mentor, supporter, and voice of reason during the many challenges of this journey. I appreciate all of them very much and to each in EDS I owe my greatest thanks.

Vita

Educational Degrees

2017	University of California, San Diego Doctor of Education in Teaching and Learning
2001	California State University, San Marcos Master of Arts in Education (Literacy Option)
1994	San Diego State University Bachelor of Arts in Liberal Studies (Summa Cum Laude)
1992	Palomar College, San Marcos Associate in Arts in Liberal Studies and Science (Dean's Highest Honors)

Credentials

2016	California Clear Administrative Services Credential
2001	Reading Specialist Credential
1995	Professional Clear Multiple Subject Credential

Professional Experience

1996-Present VUSD

Administrative Position

Coordinator in Curriculum and Instruction, Early Literacy (2014-present)

Teaching Positions

Content Support Resource Teacher grades K-12 (2013-2014)

Beginning Teacher Support and Assessment Support Provider (various)

District Literacy Coach grades K-5 (2009-2013)

Mentor Teacher for 4/5 Language Arts Adoption (1999-2000)

Elementary Classroom Teacher (1996-2009)

2016-2017	University of California San Diego, La Jolla Reader for Education Studies Department (Summer 2016; Winter 2017; Spring 2017) Guest Lecturer (Summer 2016; Spring 2017) Faculty Search Committee Graduate Student Representative (2016-2017)
2011-2013	California State University, San Marcos Site Liaison for Student Teachers at District Elementary School
1995 - 1996	San Marcos Unified School District Regroup Teacher, Title I Reading, grades K-6 Substitute Teacher, grades K-6

Publications

O'Connor, W. (2001). *Formal Editing Conferences in Writers' Workshop*. Unpublished master's thesis, California State University San Marcos, San Marcos, California.

ABSTRACT OF THE DISSERTATION

Sociocultural Early Literacy Practices in the School and Home Context:
The Role of a Digital Library

by

Wendy Lynn O'Connor

Doctor of Education in Teaching and Learning

University of California, San Diego, 2017

Carolyn Huie Hofstetter, Chair

This mixed-methods study explored TK-2 students' literacy experiences in school and home in regards to their use of print books and the digital library, myON, as part of their repertoires of practice. This study is broadly based in language socialization theory and operationalized through the cultural communities framework presented by Rogoff (2003). There is a literature base that exists around early literacy and the importance of connecting literacy development with the home through family involvement. The existing literature around e-books shows the promise of increased literacy proficiency when using e-books along with concerns regarding equitable access, distractibility, and the appropriate use of screen time.

School and home survey and interview responses about the daily practices of 208 student participants at one elementary setting revealed a variety of literacy and

technology practices in the school and home. The findings revealed a strong digital infrastructure in the school context; however, some students did not have access to technology at home because they did not have Internet. Hierarchical Linear Modeling (HLM) analyses revealed that the overall myON hours varied across student usage, which was in part explained by a nested structure in which the classroom teacher had the largest effect on myON usage followed by grade. The higher the grade level of the student, the more likely students were to integrate a digital library into their routine practices. Teacher and parent reports revealed that both traditional and digital resources were integrated into their classroom and home literacy practices. Teacher participants used reading homework as a mediator to communicate ways that parents could support their children's literacy development. Further, the classroom teacher had the largest effect on student myON usage within classroom, homework, and home practices because the teachers' literacy practices influenced what activities students engaged in while in school and at home. Findings from this study, regarding how participants used a digital library as part of their daily routine, can support the development of effective and culturally sensitive 21st century literacy practices that draw from the experiences of children's families and educators. Implications of the study are also discussed.

Chapter 1: Introduction

Children of the 21st century are no longer limited to learning the basics of reading, writing, and arithmetic (the three Rs) through direct instruction, but instead are provided opportunities to learn the three Rs through creativity, collaboration, critical thinking, and communication, known as the four Cs (Magner, Soule, & Wesolowski, 2011). Given the rapidly changing technology in society, computer literacy remains at the core of these 21st century skills (Voogt & Roblin, 2010). Increased academic expectations, set by the rigorous Common Core standards (California Department of Education [CDE], 2010), require children to apply their literacy skills across content areas with the inclusion of technology integration. The challenge of integrating technology into teaching has led to research regarding how teachers integrate technology into their daily classroom practices (Koehler & Mishra, 2009; McKenney & Voogt, 2009; Warschauer, Grant, Real, & Rousseau, 2004). These high expectations create a challenging educational landscape for teachers, students, and families. Teaching literacy with the integration of 21st century skills and technology are complicating factors that have been seamless for some teachers, students, and families, while others have been struggling to make this transition.

One innovative technology-based instructional tool, particularly for children who are growing up in the age of rapid technological changes, is the digital library. A digital library is defined as a collection of electronic books that can be accessed and read through a computer device. Since several studies have shown that low SES children often lack resources in their home (Burchinal & Forestieri, 2010; Rodriguez et al., 2009; Teale, 1986), access to a digital library would provide books to low socioeconomic status (SES)

families that would otherwise be unobtainable. The integration of electronic books into classroom and home literacy events has been embraced by many educators and families because it has the potential to improve literacy proficiency for even the most struggling readers (Korat & Blau, 2010; Korat & Shamir, 2008; Leacox & Jackson, 2014; Shamir & Schlafer, 2011). However, there are concerns about the use of electronic books in regards to equitable access (CDE, 2014), distracting hotspots (Takacs, Swart, & Bus, 2015; Zucker, Moody, & McKenna, 2009), lack of human interaction, and amount of screen time (AAP, 2010). In addition, research on digital libraries is limited to studies focused on individual electronic book usage rather than ongoing access to a large digital library.

Though new programs offer promise, there is never a "silver-bullet" to address the literacy needs of all children, so many children move through the elementary grades without becoming proficient readers (U.S. Department of Education [NAEP], 2015). Studies regarding early literacy, sometimes termed emergent literacy, are included in the literature review found in Chapter Two. Early literacy is defined as the developmental process young children go through when learning to read and write. Code-based instruction and meaning-based instruction are the two primary types of literacy activities children engage in as they become literate; however, even the inclusion of research based classroom practices still leave many children behind.

The "21st century Great Divide" suggests that readers who struggle the most tend to be those whom are economically disadvantaged, underrepresented, and are often learning English as a second language (McCarty, 2004). These same students tend to have less access to computers and the Internet (CDE, 2014). In addition, research shows a tight connection between family involvement, children's home environment, and early

literacy development. Given this context, several questions emerge. Will the use of a digital library help close the 21st century and digital divide by helping children simultaneously learn to read and build computer literacy, or will the integration of technology widen the gap? What sociocultural, contextual factors at home and school ensure success for diverse learners?

Theoretical Framework

There is a rich body of research related to the ways children become literate within the contexts of their home and school. Language socialization (Ochs & Schieffelin, 2008) is the conceptual theory that links the home environment directly to the process of socializing students into language and literacy. The cultural communities framework (Gutierrez & Rogoff, 2002; Rogoff, 2003) suggests that culture is defined by shared practices rather than categorical characteristics of people, and that these practices are what shape our development. Weisner (2002) believes that cultural communities exist in an ecocultural context and that the activities of the community provide developmental pathways for children through everyday routines. Weisner argues that the espoused beliefs and values of community members can be observed through their routine practices (2002). The routine practices of the home and school mutually influence children's language and literacy development (Garrett & Baquedano-Lopez, 2002). A close alignment between the values, beliefs, and practices of parents in the home and teachers in the school result in increased literacy and language proficiency for students (Bennett, Weigel, & Martin, 2002; de Jong & Leseman, 2001; Pinto, Pessanha, & Aguiar, 2013) (see Figure 1).

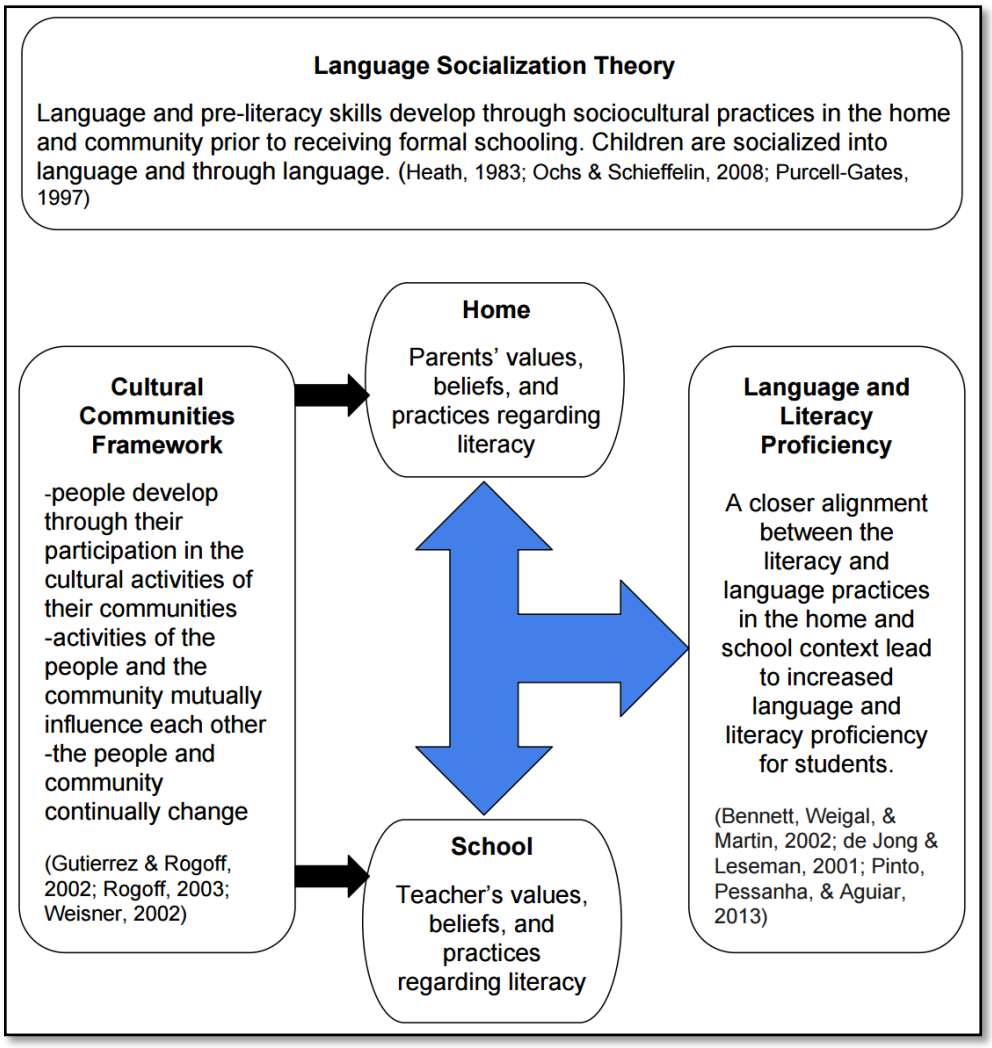


Figure 1. Conceptual model of language socialization theory and cultural communities framework.

Language Socialization Theory

The language socialization process results in a reciprocal relationship between socialization and language. Learners are socialized through language and into language (Ochs & Schieffelin, 2008) whereby the language and cultural practices may be explicitly or implicitly taught to include the appropriate use of the language along with the beliefs, values, and ideologies unique to that sociocultural context (Duff, 2010). Once formal education begins, there is often discontinuity between the language and literacy culture of

the classroom and the cultural community of the student's home (Baquedano-Lopez & Kattan, 2008). The most common example of discontinuity occurs when a child enters school speaking a primary language that is different than the language of the school. This creates a discontinuity for the child as they attempt to participate in the new language, as well as discontinuity for the families as they attempt to support their child's education. Another example of discontinuity involves children who speak the same language as the school; however the variations in the ways that they use the language cause a discontinuity between the home and school expectations. The ten-year ethnographic study completed by Heath (1983) in the homes of racially and socioeconomically diverse children found that the variations in language socialization correlated with the success or failure of literacy learning once the children began formal schooling. Though discontinuities exist, the language socialization process is fluid with potential for change and innovation (Garrett & Baquedano-Lopez, 2002). Since language socialization is a dynamic and interactive process (Schecter & Bayley, 2004), new literacy practices introduced in both the classroom and home contexts may help close the language and literacy gap currently experienced by disadvantaged underserved minority students.

Cultural Communities Framework

An important orienting concept of cultural communities is that people develop through their participation in the cultural activities of their communities (Rogoff, 2003). Through these activities the people and the community mutually influence each other, therefore the people and community continually change. A close look at any cultural community will show that, "Individuals and generations shape practices, traditions, and institutions at the same time that they build on what they inherit in their moment in

history," (Rogoff, 2003, p. 62). The cultural communities framework helps situate literacy development as a cultural process. In the home context, parents' values and beliefs impact their practices regarding literacy, which directly influence their children's early literacy development (Reese & Gallimore, 2000). In the school context, teachers' and staff member's values and beliefs regarding literacy impact their classroom practices, which also directly influence students' early literacy development (Taylor, Pearson, Clark, & Walpole; 2000; Taylor, Pearson, Peterson, & Rodriguez; 2003). Together the literacy practices of the cultural communities of home and school directly impact the literacy development of the children nested within the two communities.

Purpose of Study/Research Questions

This dissertation study explored early elementary students' literacy experiences in the contexts of school and home as reported by teachers, school staff, and parents who used traditional literacy resources with the optional integration of a digital library, titled myON, as part of their repertoires of practice. Rogoff's cultural communities framework (2003) was used to look at the daily cultural literacy practices of young elementary children nested in the contexts of school and home and whether or not, and in what ways, the integration of a digital library contributed to those repertoires of practice.

This study was designed to answer the following overarching question: In what ways is the use of a digital library integrated in the literacy and language repertoires of practice in the sociocultural contexts of home and school? The following sub-questions were designed to elaborate on the specific sociocultural practices of the school and home, and interactions between the two contexts:

1. How are teachers and students integrating a digital library into their literacy and language practices in early elementary classrooms?
2. How are students and family members integrating a digital library into their literacy and language practices in their homes?
3. How is the use of a digital library in both the school and home working as a mediating influence on the interactions between the teachers, students, and families?
4. How does the infrastructure and support staff of a school impact the implementation of a digital library in the school and home?

This phenomenological study was a sequential mixed-methods design that answered the research questions by describing the daily literacy practices of transitional kindergarten through second-grade (TK-2) teachers, parents, and students nested in both the school and home contexts. Survey and interview responses were used to gather data on teachers', school personnel, and parents' beliefs, values, and practices around literacy and technology use in both the school and home contexts.

The study included three phases, with the preliminary findings from each phase informing the next. Phase One involved the selection of a purposive participant sample of one elementary school in a southern California school district identified through a quantitative analysis of myON usage data in the district. Study participants encompassed various demographic groups including economically disadvantaged minority children, their families, their teachers, and the support staff at their school. The number of participants included 11 teachers, three support staff, and 208 parents. Phase One included the completion of literacy surveys by both classroom teachers and parents.

Individual student demographic, myON usage, and reading data were analyzed for those students whose parents completed the survey. The final question on each survey asked if the participant was willing to participate in an interview, which informed the sample of participants in Phase Two and Phase Three, as the interviewees were selected from those who indicated a desire to participate.

Phase Two included interviews of the teachers and school personnel who supported the implementation of literacy at their school. Phase Three included an interview with the parents who indicated a willingness to be interviewed on the literacy survey. The selected parents had children in the classrooms of the teachers who were interviewed. Likert scale survey responses were analyzed for descriptive statistics. Interview responses were analyzed by coding patterns and themes related to the various demographic groups included in the study. The collection of individual student data, survey responses, and interview responses were analyzed and triangulated to inform findings.

Significance

A goal of this study was to gain an increased awareness of the degree to which and in what ways parents and teachers integrated a digital library into their routine literacy practices with children. This awareness can support the development of effective and culturally sensitive 21st century literacy practices that draw from the current experiences of children's families and educators. Findings from this study will contribute to the literature domains of literacy development and technology integration for young children in both the school and home contexts.

Chapter 2: Literature Review

This study was broadly based in language socialization theory (Ochs & Schieffelin, 2008) and operationalized through the cultural communities framework presented by Rogoff (2003), which together consider the role of the sociocultural contexts of school and home in supporting the language and literacy development of young children. As seen through the lens of language socialization theory, children develop language and pre-literacy skills through the sociocultural activities experienced in the home and community long before they enter school (Purcell-Gates, 1997). This theory can be operationalized through the cultural communities framework suggesting that children develop through participation in cultural practices (Rogoff, 2003). The theory and framework align because both recognize that the practices of the home contribute to the development of the child. When children enter formal school they either transition smoothly because the daily repertoires of practice in the home match the school, or they struggle to varying degrees due to the discontinuities between the two contexts.

The lenses of language socialization theory and cultural communities framework informed a literature review that included the history of early literacy research and the process of early literacy development, the role of family involvement in that process, and the effect of e-books on young children's literacy development. Collectively, the body of literature showed a dynamic relationship between the domains of reviewed research and the language and literacy development of the child (see Figure 2).

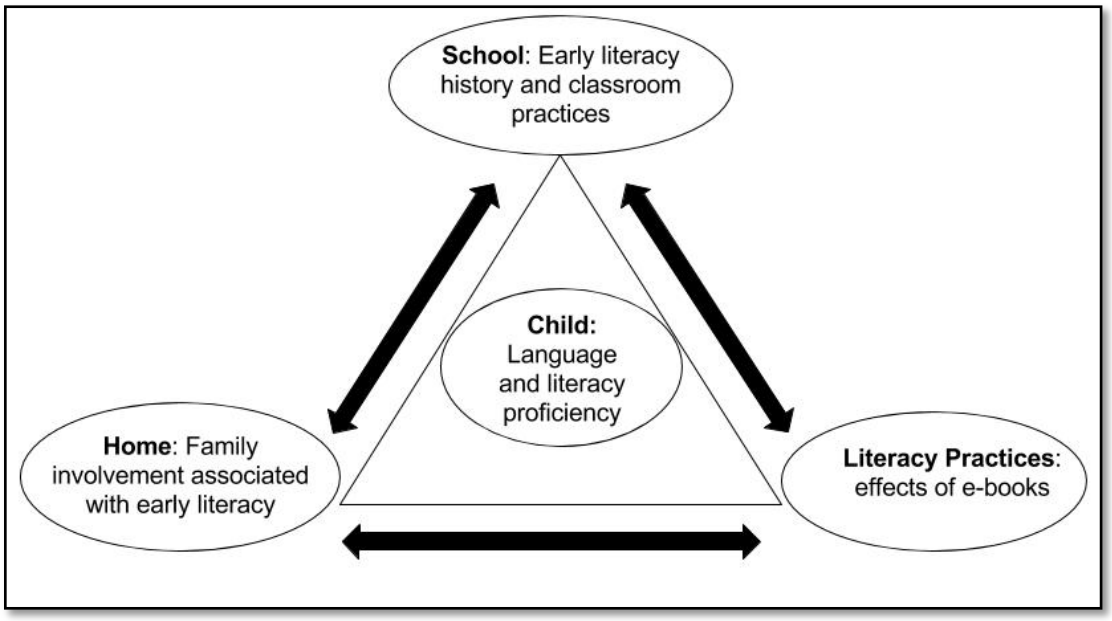


Figure 2. Interrelationship between three domains of research.

This chapter begins with a socio-historical overview of early literacy research and policy, continues with literature that contextualizes literacy development as enacted in both the classroom and home, and finishes with a review of the research available on the use of digital books. This study will add to the body of literature because no study exists that looks at the integration of a large digital library into the shared reading experiences of early elementary children in the school and home context.

Early Literacy

Studies regarding early literacy identify code-based instruction and meaning-based instruction as the two primary types of literacy activities children engage in as they become literate. A recent study defined code-focused instruction as ". . . any activity designed to support children's mastery of the alphabetic principle," and meaning-focused instruction as activities ". . . designed to support students' active extraction and construction of meaning from text," (Connor, 2010, p. 258). In a comprehensive review

of qualitative emergent literacy research spanning 1954 through 1986, Mason and Allen (1986) recommended that teachers create a community of readers and writers engaged in meaningful literacy events. The literature reviewed in this domain focused on meaning-based instruction because this dissertation study investigated meaning-based sociocultural experiences with text when using both traditional print books and a digital library. A short review of the code-focused research as part of an historical timeline of reading research was necessary to establish a socio-historical context of which teachers and parents have been and may still be situated in regards to their beliefs, values, and practices regarding literacy development.

Educational Policy

The variations of literacy practices currently implemented in early elementary classrooms are a result of the government funded research and resulting policy between 1967 and 2008 around reading instruction (Pearson & Hiebert, 2010). For close to 50 years, the field of reading has been divided into two philosophical camps known as the "reading wars." One camp claimed that code-focused instruction was the key to reading success, while the other camp claimed meaning-focused to be the key to reading proficiency (Paterson, 2000). The multiple government funded studies that attempted to determine the best way to teach reading have resulted in educational policy that directly impacted early literacy funding, curriculum, assessment, and pedagogy (Adams, 1990; Anderson, Hiebert, Scott, & Wilkinson, 1985; Bond & Dykstra, 1967; Gardner et al., 1983; National Early Literacy Panel [NELP], 2008; National Institute of Child Health & Human Development [NICHD], 2000; Pearson & Hiebert, 2010; Snow, Burns, & Griffin, 1998). The most recent of the government studies impacting the elementary classroom

was the report of the National Reading Panel (NRP) (NICHD, 2000). The socio-historical events resulting from the NRP report, which are described below, shaped the literacy beliefs, values, and practices influencing the literacy resources and instruction found in classrooms today (Pearson & Hiebert, 2010).

National Reading Panel. The National Reading Panel (NRP) reviewed experimental and quasi-experimental studies focused on reading instruction in kindergarten through twelfth-grade (NICHD, 2000). The findings of the NRP led to the Reading-First provision of the No Child Left Behind (NCLB) act requiring educational institutions to follow the suggestions of the NRP by providing funds to only those institutions that adopted curriculum and implemented instruction based on scientific reading research (Act-NCLB, 2001). The NRP (NICHD, 2000) meta-analyses have informed national (Pearson & Hiebert, 2010; Shanahan, 2003) and state policy (Pearson & Hiebert, 2010), the development of curriculum and assessments (Rigby, 2008), and teacher professional development. The lingering influence of the Reading-First mandates that were based on the NRP findings are still shaping the teaching and learning of literacy in U.S. classrooms today, which was the rationale for including the details in this literature review. Though large meta-analyses of literacy studies provided code-focused recommendations for teaching literacy, they were limited in the fact that they only included experimental and quasi-experimental studies. This limitation excluded an entire body of qualitative and mixed-methods research. Meta-analyses, such as the NRP that focus on experimental studies provide the best evidence of cause and effect relations; however, they fail to provide insights on the sociocultural context in which literacy and language development takes place. The fact that so much credence has been placed on the

NRP meta-analysis report provides justification for a mixed-methods study such as this dissertation study, as this study will add qualitative findings regarding the sociocultural nature of literacy and language development to this research domain.

College and career readiness. Elementary teachers are currently expected to transform their classroom literacy practices to match the new Common Core standards and our nation's schools are now expected to follow the provisions of the law outlined in the Every Student Succeeds Act (ESSA, 2015), which replaced NCLB (Act-NCLB, 2001). Common Core and the guidelines of ESSA have made the curriculum and assessment system of Reading-First obsolete. These major systemic educational changes were designed to prepare all students for college and career. By integrating foundational skills, reading literature and informational text, writing, and technology, the Common Core standards for English Language Arts created vertically aligned expectations that prepare students for competencies unique to the 21st century (CDE, 2010). The new English Language Arts/English Language Development Framework (CDE, 2014) matches the description of a balanced literacy program (Connor, Morrison, & Katch, 2004) because it requires elementary teachers to provide opportunities for students to engage in complex text while simultaneously teaching foundational literacy skills. A balanced approach between code-focused and meaning-focused instruction is recommended in the most recent version of *Reading Instruction That Works* (Pressley & Allington, 2014), an adopted text and K-8 teacher resource. The resource of a digital library helps teachers access large varieties of text that can be used in a balanced literacy structure to teach the reading standards. This study attempted to uncover the values, beliefs, and practices regarding literacy and technology used in the schools and homes of

the participants at the time of this study. The description of the participants' daily repertoires will provide insights into the ways that parents and teachers are using digital and traditional resources to provide both code-focused and meaning-focused events for their children as the research has shown both to be important in literacy development (Connor, Morrison, & Katch, 2004).

Meaning-making in the Classroom

This section includes studies regarding effective teacher practices that have promoted early literacy development specifically around meaning-making instruction. The types of literacy events and pedagogical practices that teachers can enact that have led to increased literacy proficiency for our youngest learners were reviewed.

From the earliest age, the most common literacy event that children experience is having a book read aloud to them. Research has shown that the acquisition of story-guided concepts resulted not just from the reading event, but the interaction that occurred between the adults and children (Mason & Allen, 1986). Biemiller (1999) reinforced this idea by stating, ". . . language can only 'grow' through interactions with people and texts which introduce new vocabulary, concepts, and language structures," (p. 4). Mason (1986) reminded us of Vygotsky's zone of proximal development whereby adults scaffold the conversations about the text around the children's capabilities. Hoffman, Roser, and Battle (1993) used the analogy of, "Reading to children is to literacy education as two aspirins and a little bed rest were to the family doctor in years gone by," (p. 496). The report, *Becoming a Nation of Readers* (Anderson et al., 1985) states:

> The single most important activity for building the knowledge required for eventual success in reading is reading aloud to children. This is especially so during the preschool years. The benefits are greatest when the child is an active participant, engaging in discussions about stories, learning to identify letters and words, and talking about the meanings of words. (p. 23)

Numerous researchers have substantiated the benefits of reading aloud to children (Adams, 1990; Bus, van IJendoorn, & Pellegrini, 1995; Heath, 1983; Lonigan & Whitehurst, 1998; Teale & Sulzby, 1986). As teachers provide literacy events to include read alouds and interactive shared reading experiences, they have many research-based options for how they might design the events. The research-based options all include the use of traditional print books, as there is still no literature around the design of literacy events that include the use of digital books.

The design of classroom literacy events has been shown to be the deciding factor that leads to literacy motivation and reading achievement. Two studies found that the most effective teachers designed literacy tasks in which higher-level questions were included in discussions around text as well as higher-order activities related to the text such as response to literature through writing (Taylor et al., 2000; Taylor et al., 2003). In another study, it was found that the literacy tasks designed by the teacher determined student reading motivation (Turner, 1995). Motivation was highest when students had opportunities for challenge, control, and collaboration. A common finding across all three studies was that student achievement and motivation was increased when the literacy events included higher-order challenging tasks. An aspect of this dissertation study was to determine the types of literacy events teachers designed in their classrooms to include traditional print books and how they may or may not have integrated digital books.

In addition to the task design of the literacy event, the type of student grouping used during the event can impact the degree of student learning. Two studies showed that the most effective teachers spent time teaching literacy in small groups (Morrow & Smith, 1990; Taylor et al., 2000). Data from the Early Childhood Longitudinal Study—Kindergarten Cohort was used to determine that not only do within-class small groups support literacy development, but also students participating in small groups created by ability scored higher on literacy assessments than those not participating in ability groups (McCoach, O'Connell, & Levitt, 2006). It was pointed out that ability groups should only be used when guided by data, are flexibly changed based on data, and when the instruction within the group matches the needs of the students (McCoach et al., 2006). This study attempted to determine the degree to which teachers used different groupings when students were engaged in literacy events.

When the classroom environment provides opportunities for daily literacy events, students become literate through the routine practices of the cultural community. When Neuman and Roskos (1992) infused literacy objects into preschool classrooms, they found that the literacy objects significantly influenced the children's literacy behaviors. Over time, the literacy objects and practices became a routine part of the classroom cultural community. In a similar study, preschool students were observed to engage in authentic reading and writing activities as they adapted the tools of literacy found in classroom centers (Neuman & Roskos, 1997). Further, preschool children, through the daily routines and activities of the classroom, experienced the dynamic nature of creating a literate culture while at the same time they created a culture of literacy (Kantor, Miller, & Fernie, 1992). The authors explained that the classroom observations showed, "The

reciprocal relationships found across the classroom here suggest that just as school was a way to learn literacy, so was literacy a way to learn about school," (Kantor et al., 1992, p. 199). These three studies are examples of how the classroom environment allowed cultural literacy practices to become part of the daily routines of the students, which lead to increased literacy. Similar studies that describe the daily literacy practices of students in classrooms utilizing digital books as a possible resource have yet to be conducted.

In order to establish the sociocultural context in which teachers are situated, a review of the socio-historical development of educational policies and literacy practices leading up to and including the expectations of the Common Core standards was provided. This review showed that code-focused as well as meaning-focused instruction have been and continue to be the two primary modes in which students develop literacy. The literature review included several studies focused on meaning-making instruction in classrooms to include the design of literacy events and the establishment of a classroom environment that is conducive to literacy development. The following section expands the context in which students develop early literacy beyond the walls of the classroom to that of the students' homes.

Family Involvement

Since language socialization theory recognizes that children develop language and literacy skills through the sociocultural activities experienced in the home, a body of research representing the connection between family involvement and early literacy development is included in this section. A meta-analysis of parent involvement studies found that parents played a major role in supporting their children's literacy development, particularly when the students were from a minority group (Jeynes, 2003).

This section includes research specifically showing the link between the home context and language and literacy development. This review includes discussions showing the association between low SES children and low literacy development, the link between the literacy development of English Language Learner (ELL) students highlighting the importance of building a bridge between school and home, and a review of the effect of shared reading experiences in the home on children's literacy development. All of the reviewed studies used traditional print books as the literacy resource, thus there is still a need to conduct similar studies that address children's literacy development in the home context when digital books are offered as a resource.

Low SES and Low Literacy Development

One of the first qualitative studies that looked at early literacy development in the context of the home prior to the start of formal schooling used naturalistic inquiry to observe the everyday routines of children (Teale, 1986). The goal of the study was to determine the relationship between the home background, home literacy experiences, and literacy development of 24 low SES preschool children (Teale, 1986). The inquiry revealed a variety of literacy experiences with storybook reading only being documented in three of the families. The author speculated that the low SES status of the families may have been a contextual factor that led to less instances of storybook experiences due to a lack of literacy resources, time, or knowledge (Teale, 1986). Overall, the author concluded that "cultural as well as social structural factors influenced how, to what ends, by whom, and when literacy was used," (Teale, 1986, p. 194). The following section includes a review of studies conducted after Teale's work that have found correlations between early literacy development and home context in low SES families.

Numerous longitudinal descriptive studies (Burchinal & Forestieri, 2010) as well as neuroscience studies (Blair, Protzko, & Ursache, 2010) have shown an association between children living in poverty and low early literacy development. Several factors have been linked to this association such as lack of literacy resources, lack of maternal warmth and responsiveness (Burchinal & Forestieri, 2010), as well as elevated stress in the home environment (Blair et al., 2010). Elevated stress levels have been shown to negatively affect the development of the executive functions of the brain (Blair et al., 2010). Another study showed a correlation between the development of early literacy skills for low SES Head Start children and the rates of the caregiver-child interactions observed in their homes (Rush, 1999). A similar study was done over a period of three years in which the researchers assessed the language and cognitive abilities of low SES children as well as the frequency of participation in literacy activities, the quality of engagement with the mother, and the availability of learning materials when the children were 14 months, 24 months, and 36 months (Rodriguez et al., 2009). The results showed an association between each aspect of the home literacy environment and the child's development at each age (Rodriguez et al., 2009) validating the claim that there is an association between home context and literacy development for low SES children.

A study of low SES Head Start children found a significant correlation between the children's emergent literacy skills and SES, social risk, and home learning experiences (Foster, Lambert, Abbott-Shim, McCarty, & Franze, 2005). The authors used the data to uncover constructs that they suggest were explanations for why SES and social risk impacted emergent literacy development to include financial resources, attitudes toward education, and poverty stressors such as depression and social isolation

(Foster et al., 2005). Two separate correlational studies conducted with low SES minority Head Start (Fantuzzo, McWayne, Perry, & Childs, 2004) and kindergarten (McWayne, Fantuzzo, Cohen, & Sekino, 2004) students looked for a relationship between the school and home settings. Both studies revealed a significant positive correlation between a supportive home learning environment and early literacy development, as well as a significant negative correlation between inhibited family involvement and early literacy development.

In summary, the articles reviewed regarding the relationship between the home context and low SES children's early literacy development showed that a nurturing supportive home environment was correlated to increased early literacy development. Unfortunately, the contextual factors associated with poverty were most often associated with a home environment that was not conducive to early literacy development. This dissertation study aimed to determine if there was an association between any demographic factors, such as SES, and the routine literacy practices found in the homes of the study participants. Another demographic factor considered in this dissertation study was the association between the home literacy practices and the students' and families' levels of English language proficiency.

School to Home Connections for ELL Students

Comprehensive literature reviews regarding the connection between the home context for ELL students and literacy development have shown that the educational system needs to acknowledge the differences between diverse sociocultural groups and work to build a bridge between school and home because the literacy activities of the classroom may not fit the cultural practices, values, and beliefs of the student home

context (Auerbach, 1989). Research has typically framed parent involvement through a deficit model, therefore consideration of the cultural practices, values, and beliefs of the home context are especially significant when introducing new strategies and resources such as a digital library (Baquedano-Lopez, Alexander, & Hernandez, 2013). The cultural and personal views regarding literacy, technology, parent involvement, and additional factors determine the routine practices of the home context. The National Literacy Report, in which a panel of researchers conducted a literature review to determine how the findings of the National Reading Panel applied to English Language Learners, substantiated the sociocultural influence on learning by recognizing that socially defined group membership influenced values, beliefs, and practices which impacted learning outcomes (August & Shanahan, 2008). In addition, the review determined that "Available research designed to bridge home-school differences in interaction can enhance students' engagement and level of participation in classroom instruction," (August & Shanahan, 2008, p. 256). Unfortunately, they also determined that schools seldom take advantage of the support minority families can provide for their children (August & Shanahan, 2008).

Another literature review revealed several studies that looked at parental beliefs around how children become literate (Goldenberg, 2010). Studies of Latino families found that Latino parents typically believed children become literate through code-focused instruction rather than meaning-focused, therefore the parents were more likely to get involved in the school and engage in family literacy activities when the activities included code-focused strategies such as phonics worksheets (Goldenberg, 2010; Reese & Gallimore, 2000). A similar literature review specifically provided suggestions for educators to build a school to home bridge such as learning about the home practices of

students, becoming sensitive to differences, and incorporating home styles into the classroom (Vernon-Feagans, Hammer, Miccio, & Manlove, 2010). The literature reviews all concluded with the realization that it is up to the educational institution to acknowledge the differences between varying sociocultural groups, in particular ELL students, and take action toward building a connection between the home and school to ensure literacy proficiency for all. Considering the current "21st century divide" and "digital divide" identified in Chapter One, this dissertation study described the degree to which diverse learners embraced the literacy practices of the classroom to include the use of traditional print books as well as digital books in their home context.

Shared Reading in the Home

In regards to building a bridge between home and school, one literacy event that children have experienced in both contexts, while having a significant positive effect on their literacy development, was to have a book read to them by teachers and family members (Lonigan & Whitehurst, 1998). Ethnographic studies in the homes of children found that shared reading practices in families varied considerably from family to family (Cairney & Ashton, 2002; Heath, 1982, 1983; Taylor, 1986). Though the shared reading events may have varied within the homes, meta-analyses have shown a significant positive effect on language and literacy measures when parents read books to their children (Bus et al., 1995; Manz, Hughes, Barnabas, Bracaliello, & Ginsburg-Block, 2010; Mol, Bus, de Jong, & Smeets, 2008). One promising practice included dialogic reading, a strategy in which parents learned how to infuse discussion through intermittent dialogue during the reading of the book (Huebner, 2010; Mol et al., 2008). In addition to the meta-analyses, several smaller studies have substantiated the effect of shared reading

activities in the home with literacy growth (Deckner, Adamson, & Bakeman, 2006; Lonigan & Whitehurst, 1998; Raikes et al., 2006, Sonnenschein & Munsterman, 2002). The wide range of research included in this literature review substantiated the positive effects of shared reading through the use of traditional print books in the home on children's literacy development. Studies that investigate the ways in which parents and children use digital books in the home context would add to this body of research.

The literature reviewed in this section showed a clear link between family involvement and children's literacy development. Two demographic groups that must be considered when discussing family involvement are low SES students and ELL students. The research showed that these two groups of students often struggled in literacy development; therefore it is up to the educational institution to build a bridge between the school and home. The final body of research reviewed showed the significant positive effect between shared reading experiences in the home and children's literacy development. The body of research regarding literacy development and family involvement only included studies with traditional print books, which leaves a gap in the literature regarding family involvement and literacy development when using digital books. The following section will review the body of literature found regarding the topic of digital books, primarily known as e-books.

e-Books

This section expands on the topic of literacy to include research from the past thirty-five years regarding the use of e-books during children's reading events. The definition of an e-book included an electronic book presented on a technology device that offered an oral reading option, the ability to digitally turn pages, and some form of

hypermedia such as images, sounds, video, or animation. This literature review shows that the use of e-books has had a positive effect on students' literacy skills, including those who were low SES, at-risk for learning disabilities, and who were English language learners (ELL) especially when e-books were used interactively with an adult or a peer. A descriptive review of the digital library myON, which provides access to large numbers of e-books, is also included in this section because that is the digital resource students in this study potentially had access to in the school and home contexts. The research also identified concerns when using e-books around accessibility issues, distracting hotspots, lack of human interaction, and possible negative effects regarding excessive screen time. All of the literature reviewed included the use of a limited number of e-books; therefore the need still exists for similar research that looks at the integration of a large digital library in young children's repertoires of practice.

Positive Effects on Literacy Development

A review of two meta-analyses and two experimental studies has shown positive effects on literacy development in children when comparing the use of traditional print books to e-books. The meta-analyses found that multimedia features when aligned to the story were found to be beneficial, but interactive hotspots, which are spots in the story where students can click to activate an animation, sound, and games, that were not aligned to the text were distracting (Takacs et al., 2015; Zucker et al., 2009). Experimental studies conducted in Israel with kindergarten and first-grade students found significantly higher early literacy scores for students assigned to e-book experimental groups compared to the students assigned to the traditional print book control group (Ihmeideh, 2014; Korat, 2010). The results of the meta-analyses and the experimental

studies showed that the use of e-books had a positive effect on students' literacy development.

The following review of four experimental studies showed that the use of e-books had a positive effect on the literacy development of diverse demographic groups of students to include low SES, students at-risk for learning disabilities, and students who were English language learners (ELL). Two experimental studies (Korat & Blau, 2010; Korat & Shamir, 2008) compared the effect on early literacy skills when using e-books between two socioeconomic (SES) groups of four to six year old children. The first study found that literacy skills improved for all students, with the low SES students improving more than the middle SES (Korat & Shamir, 2008). The second study found that all students progressed similarly when using e-books with no difference in pre- and post-literacy skill growth between the low SES and the middle SES students (Korat & Blau, 2010). Another experimental study in Israel (Shamir & Schlafer, 2011) used e-books to determine the effect for students at-risk for learning disabilities in which they compared literacy growth between typically developing kindergarteners and kindergarteners at-risk for learning disabilities. They found the experimental group using e-books showed more growth than the control (Shamir & Schlafer, 2011). Another experimental study measured pre- and post- vocabulary and language proficiency growth of ELL students ages four to six to compare the effects of the control group of adult-read story events with the experimental group of e-book story events (Leacox & Jackson, 2014). They found significant word learning growth for the e-book experimental group (Leacox & Jackson, 2014). The four studies reviewed in this section supported the use of e-books with diverse populations of learners such as low SES, students at-risk for learning disabilities, and

ELL students. Most general education classrooms in the district in which this dissertation study took place included diverse learners such as those included in the reviewed studies, therefore the reviewed research findings supported the use of e-books in the classrooms included in this study.

Need for Human Interaction

The use of the oral reading option found in e-books has led to several studies that have investigated the effects of children's early literacy development when reading e-books with and without human interaction. Four separate studies in Israel measured the effect of early literacy development when students engaged in e-book reading within various interactive contexts to include reading alone, mother-child interaction, adult support, and peer interaction. The text to voice feature of e-books allowed young children to independently engage in reading events without the support of an adult. All four experimental studies showed that the effect of early literacy development when students engaged in e-book reading within various contexts increased when reading interactively with a parent, adult, or peer (Korat & Or, 2010; Korat, Segal-Drori, & Klien, 2009; Korat, Shamir, & Heibal, 2013; Shamir et al., 2008).

The National Association for the Education of Young Children (NAEYC) and the Fred Rogers Center for Early Learning and Children's Media at Saint Vincent College joint position statement on the use of technology in early childhood programs from birth through age eight (2012) recommended integrating technology in interactive developmentally appropriate ways to enhance language and literacy goals in classrooms without replacing human interactions. The joint position statement also pointed out that the American Association of Pediatricians (AAP, 2010) recommended a maximum of

two hours a day of screen time for children. A more recent statement from the AAP (2016) recommends:

> - For children ages 2 to 5 years, limit screen use to 1 hour per day of high-quality programs. Parents should co-view media with children to help them understand what they are seeing and apply it to the world around them.
> - For children ages 6 and older, place consistent limits on the time spent using media, and the types of media, and make sure media does not take the place of adequate sleep, physical activity and other behaviors essential to health. (p. 3)

The introduction of e-books into the classroom and home create a challenging context for teachers and parents to navigate and incorporate the recommendations of the NAEYC and the AAP. This study will add to the research domain in that it will describe the ways in which teachers and parents are integrating the use of e-books into their daily practices, while at the same time bringing to light the challenges of following the recommendations of the NAEYC and AAP. This concept of the importance of human interaction not being replaced by screen time was similar to a finding in the review conducted by Mason and Allen (1986) where they pointed out that the acquisition of story-guided concepts resulted not just from the reading event, but the interaction that occurred between the adults and children. Biemiller (1999) substantiated this finding when he discussed the importance of child interactions with people and text in order to develop language. This information regarding the importance of human interaction guided the development of this dissertation study. In addition, this information can help guide teachers and parents in the most effective use of e-books for young children.

Digital Library: myON

This study looked at the sociocultural changes in literacy practices found in the classrooms and homes of children when the digital library myON was offered as a resource. The library was titled myON (A complete digital, 2013) because it means "my" library that is "ON" all the time. The library had close to 10,000 titles geared toward elementary and middle school students (A complete digital, 2013). Students had the option to search for books by title, topic, genre, author, reading level, and language with over 400 titles available in Spanish. The online library myON could be accessed with a district purchased license through any digital device such as a laptop, desktop, tablet, smartphone, Chromebook, or e-Reader that had Internet connection ("myON reader", 2013). Individuals who did not have Internet at home could use free mobile applications to download up to 20 book titles at a time for offline reading. Account holders with Internet and a digital device could access the digital library any place at any time.

Upon opening a book in myON, students had several multimedia options available including the option of having the book read aloud by professional actors while the written words or phrases were highlighted as it was being read. Students could navigate between pages with forward and backward arrows or by scrolling an icon at the bottom of the screen. Each book included music at the beginning and embedded tools that could be used for note taking, highlighting, circling important components, and a journal for ongoing writing (Literacy toolkit expands, 2013). The program assessed each student's reading level with a placement assessment the first time they logged in. Beyond the initial placement, the program also had set increments for benchmark assessments that determined the student's varying reading level. The benchmark score was used to

continue making appropriate reading recommendations on each student's dashboard. The following screenshot is an example of one student's myON dashboard (see Figure 3):

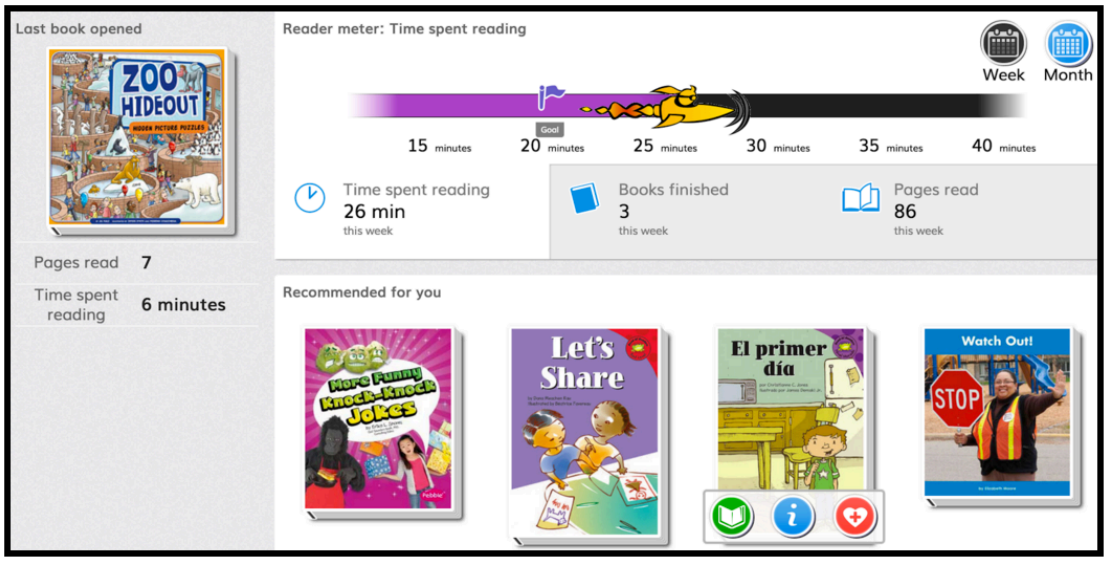


Figure 3. myON student dashboard.

In addition to the information shown on the student's dashboard, the teacher dashboard kept track of each child's reading level, books opened, books completed, minutes reading, and date and timestamps when a child opened a book and finished a book. Overall, myON was a digital library that provided a wide range of electronic text available to teachers, students, and parents.

In reviewing the literature describing the features of myON, several concerns arose in connection to the research regarding the "digital divide" and the effects of e-books on student literacy. The "digital divide" reminded us that students who are economically disadvantaged, underrepresented, and learning English as a second language tend to have less access to computers and the Internet (CDE, 2014). Since myON required access to both a digital device and Internet there is a concern that accessibility to this resource was not equitable. Another concern was that interactive

hotspots, which are spots in the story where students can click to activate an animation, sound, and games that were not aligned to the text were distracting and reduced student comprehension (Takacs et al., 2015; Zucker et al., 2009). It is possible that the clicking of hotspots, the embedded music, and the read aloud feature included in myON may be distracting to students. In addition to the read aloud feature being distracting, it may also cause teachers and parents to replace the important component of interacting with the child through reading aloud and discussing the text with simply having the computer read to the child in isolation.

According to the research reviewed earlier, the effect of early literacy development when reading traditional print books as well as when students engaged in e-book reading increased when reading interactively with a parent, adult, or peer (Biemiller, 1999; Korat & Or, 2010; Korat et al., 2009; Korat et al., 2013; Mason & Allen, 1986; Shamir et al., 2008). The importance of human interaction in all reading events may be lost when students simply listen in isolation to a text read aloud to them on myON. In addition, early childhood educators and parents need to be cognizant of the amount and type of screen time children participate in. According to the NAEYC joint position statement on the use of technology in early childhood programs from birth through age eight, the amount and quality of screen time each day is important because increased passive screen time can result in possible negative outcomes "…such as irregular sleep patterns, behavioral issues, focus and attention problems, decreased academic performance, negative impact on socialization and language development…" (NAEYC, 2012, p. 3). High interest in a digital library such as myON could increase passive screen time for students in both the school and home, potentially leading to the

negative outcomes identified in the position statement. This study brought these concerns to the surface, as well as additional concerns by describing to what degree and in what ways students were using a digital library in their school and home contexts.

This section reviewed the body of research regarding the use of e-books during children's reading events. The literature showed that the use of e-books had a positive effect on students' literacy skills, including those who were low SES, at-risk for learning disabilities, and ELL students. Several studies have shown that students' literacy skills improved more when interactively engaging in e-book events than they did when reading independently. Finally, this section provided a descriptive overview of the digital library myON, which provided an expansive resource of e-books to the participants in this study. The research review also identified areas of concern in using e-books such as equitable access to technology, the distraction of e-book hotspots, the possible lack of human interactivity, and the possible negative outcomes associated with increased passive screen time. Overall, the reviewed literature framed the use of e-books as a technology-based instructional innovation that requires additional research to determine to what degree and in what ways participants were integrating this resource into their daily literacy practices.

Summary of Literature Review

This literature review was built on the foundation of language socialization theory and the cultural communities framework that together informed a review of research linked to the school and home environments by detailing the research around early literacy, family involvement, and e-books. The expansive literature base that exists around early literacy development goes back almost half a century with an emphasis on meaning-making literacy events. More recent research showed the importance of

connecting literacy development with the home context through family involvement primarily through storybook reading beginning at the earliest age and continuing through the years of formal education.

Less research exists regarding the use of digital books; however, the existing literature showed the promise of increased literacy proficiency along with cautions and concerns when including e-books in children's literacy events. Each domain also reminded us that educational institutions must continually take into consideration the needs of our diverse learners and their families to include low SES students, students at-risk for learning disabilities, and ELL students. No literature exists in which early literacy development has been studied in both the home and school with the use of a digital library offered as a potential resource.

This study builds on the existing literature, which suggests the use of meaning-making literacy events in both the classroom and home through shared reading experiences that may or may not include the use of e-books. Thus, the overarching research question and sub-questions to be answered in this study were intended to fill this gap in the literature: In what ways is the use of a digital library integrated in the literacy and language repertoires of practice in the sociocultural contexts of home and school?

1. How are teachers and students integrating a digital library into their literacy and language practices in early elementary classrooms?
2. How are students and family members integrating a digital library into their literacy and language practices in their homes?

3. How is the use of a digital library in both the school and home working as a mediating influence on the interactions between the teachers, students, and families?
4. How does the infrastructure and support staff of a school impact the implementation of a digital library in the school and home?

Chapter 3: Research Design and Methods

This mixed-methods study included three sequential phases whereby each phase informed the sample and data collection of each subsequent phase. The data collection methods provided quantitative and qualitative information about the literacy practices of TK-2 students in their home and school. The overarching research question: In what ways is the use of a digital library integrated in the literacy and language repertoires of practice in the sociocultural contexts of home and school? was answered by collecting data specific to the four sub-questions. The sub-questions and aligned data collection methods were designed to determine the specific cultural practices of the school, home, and interactions between the two contexts (see Table 1).

Table 1. Research Questions Aligned to Data Collection Methods

Research sub-questions	Student data	Surveys	Interviews
How are teachers and students integrating a digital library into their literacy and language practices in early elementary classrooms?	X	X	X
How are students and family members integrating a digital library into their literacy and language practices in their homes?	X	X	X
How is the use of a digital library in both the school and home working as a mediating influence on the interactions between the teachers, students, and families?		X	X
How does the infrastructure and support staff of a school impact the implementation of a digital library in the school and home?			X

The data for this study were collected in three phases from May 1, 2016 through August 31, 2016. As the primary researcher, I used triangulation to make connections between and to check the accuracy of responses obtained from each of the three instruments.

Setting

This study took place in one Title 1 elementary school set in a large Southern California suburban school district. In the year of the study, the district served 25,244 students in 30 schools in grades TK-12 (CDE Dataquest, 2015). The district served a diversity of students including 56.0% who were economically disadvantaged and 24.1% who were English language learners (CDE Dataquest, 2015).

District literacy assessment data confirmed that many students were struggling to meet the literacy demands of formal schooling. According to the computer-adaptive nationally norm referenced Standardized Test for the Assessment of Reading (STAR) Early Literacy Assessment, about half of the kindergarten students in the school district began their school career performing at an intervention level with the gap widening with each subsequent grade level (District Renaissance Data, October 2015). An intervention level meant that the students were performing below the 40th percentile for typically developing students; therefore these students required intervention to accelerate growth and develop proficiency. At the time of this study the district had just begun the process of developing a framework that would align curriculum, teacher pedagogy, and child practices from preschool through third grade. This framework parallels the national P3 initiative that proposes policies and practices that assure continuous learning pathways for children from preschool through the early elementary grades (Stipek, Clements, Coburn, Franke, & Farran, 2017). Such a framework is intended to close the literacy gap that was seen for beginning kindergarteners in the district.

In an attempt to meet the challenge of preparing students for the literacy demands of college and career, a district initiative to provide personalized learning for all students

was also taking place at the time of this study. The goal was to create blended learning environments in all elementary classrooms, which allowed students to learn traditionally as well as through computer adaptive programs. In order to support this initiative, the district developed a technology infrastructure compatible with 21st century skills (Voogt & Roblin, 2010). Every school and classroom in the district had wireless Internet access and digital devices available for staff, teachers, and students throughout the school day. The digital library myON was first introduced in the school district three school years prior to this study. Along with multiple other digital programs, the district purchased individual myON licenses for all students, teachers, and administrators in grades TK-5, therefore all teachers and students had access to myON during the school day. No data exists regarding student access to digital devices or Internet at home.

Phase One

Participant Sample

In order to identify a purposive participant sample for this study, Phase One included the collection and analysis of quantitative data from the myON vendor. I analyzed the myON usage data in all of the TK-2 classes across the district from August 17, 2015 through April 21, 2016 to identify the Title I school with the highest usage. In addition to the overall usage, the dates and timestamps were noted to determine what percentage of students were using myON at home. This analysis of the district myON data identified a magnet school as having the highest usage. Since a magnet school is not representative of the other schools in the district, I selected the Title I non-magnet elementary school, which had the second highest myON usage in the district. The selected school, Mighty Elementary (pseudonym), had a combined total of 4,083.99

hours of myON usage in grades TK-2, which averaged to 13.75 hours of myON usage per student during the eight-month span. The selection of a Title I school was necessary to study the impact of myON on a diverse group of students including economically disadvantaged minority students.

The intention was to study the use of myON within diverse cultural groups to determine whether or not and in what ways a digital library was being integrated into the literacy and language repertoires of practice in the sociocultural contexts of home and school. My findings were limited to Mighty Elementary, though detailed description of the context allows the reader to determine the transferability of the findings to another setting (Mertens, 2015).

Recruitment Procedures

Mighty Elementary had an enrollment of 299 TK-2 students at the time of data collection. All 299 parents and teachers of the enrolled students were invited to become participants in this study by completing and returning a confidential literacy practices survey. The classroom teacher and one of the parents, or an adult family member familiar with the routine home literacy practices of the child, were invited to complete the survey. By completing the consent form, parents of enrolled students also gave permission for me to retrieve and analyze myON usage data, demographic data, National School Lunch Program (NSLP) data, and STAR reading data.

A meeting with the principal was held in which I explained each phase of the study. The principal scheduled a 30-minute orientation meeting for the TK-2 teachers, the family liaison, and the after school teacher. During that orientation meeting I described the purpose and phases of the study, answered questions, and passed out the consent

forms and teacher surveys to all potential participants (see Appendices A, F, G, I, and J). Teachers had one week to review the consent form and survey. Teachers who wished to participate returned the signed consent forms and completed survey either in person at the orientation meeting or through district mail.

During the orientation meeting, I asked teachers to send the parent description and purpose of the study, consent form, and family literacy survey (see Appendices B, H, and K) home with their students. I asked teachers to communicate the procedure with the parents and asked that the documents be returned within a week. In addition, the principal communicated the same information to each family through a telephone call recorded in the family correspondence language prior to the teacher sending materials home to let them know the importance of participating, completing the documents, and returning all materials to the school.

Students returned sealed envelopes holding the completed documents to the classroom teacher. I collected the envelopes in person. After one week, the principal reminded those families who had not returned the materials about the importance of the study through a telephone call recorded in the family correspondence language. After the additional week, the collection of consent forms and surveys concluded. Parents who wished to participate signed the consent forms, completed the survey, and returned the completed documents in a sealed envelope with their child to the teacher within the two-week window. I collected the sealed envelopes from the teacher. All students received a bookmark regardless of whether their parents chose to participate in the study or not. To thank the teacher and students for their participation, I provided the class with the highest percent of returned documents a pizza party.

Data Collection and Instrumentation

Data collection in this phase included the quantitative collection of individual student demographic data, NSLP data, STAR reading data, myON usage data, and literacy survey responses from teachers and parents. A total of 13 teacher surveys and 299 family surveys were distributed. Data collection from large groups of people is most easily done through the completion of a survey (Mertens, 2015). The overall response rate was 70% with 11 teacher surveys and 208 family surveys completed and returned. A comparison of the percent of each demographic category of the student participant sample, the school, the district, and the state are provided (see Table 2). Subsequent data regarding the transitional kindergarten (TK) participants will be combined with the kindergarten participants and will be reported as TK/K.

Table 2. Demographic Categories as a Percentage of Participants, School, District, and State

Category	Participants (*N*= 208)	School (*N*=548)	District (*N*= 25,244)	California (*N*=6,226,737)
Gender				
Female	55.3	55.1	48.4	48.6
Male	44.7	44.9	51.6	51.4
Grade				
TK/K	32.2	21.0	8.2	8.5
1st	38.9	18.8	6.7	7.1
2nd	28.8	14.1	7.0	7.4
3rd-5th	0	69.2	21.4	23.1
6th-12th	0	0	56.7	53.9
ELD Status				
English Learner	27.9	21.9	24.1	22.4
Race/Ethnicity				
Hispanic/Latino(a)	58.2	57.1	63.0	54.0
White	27.4	32.1	25.0	24.1
Other	14.4	10.7	11.9	21.3
Socioeconomic Status				
Disadvantaged[a]	69.7	62.0	57.7	52.5

[a]Disadvantaged socioeconomic status determined by student enrollment in National School Lunch Program (NSLP).

The demographic statistics of study participants were similar to the state of California, the district, and the school in all reported categories. The largest difference of 6.7% was seen between the state report of gender with 48.6% female while 55.3% of the study participants were female (CDE Dataquest, 2015). Since the school reports an enrollment of 55.1% female, the gender percentage shown for the study participants of 55.3% mirrors that of the school (CDE Dataquest, 2015). Additional demographic data, available for the parent participants included relationship to child, home language, and parent education level (see Table 3).

Table 3. Phase One Parent Participant Demographic Data

Category	Percent (*N*=208)
Relationship to Child	
Mother	85.1
Father	12.5
Other	2.4
Home Language	
English	71.2
Spanish	28.4
German	0.4
Parent Education	
Not High School Graduate	14.4
High School Graduate	21.6
Some College	29.8
College Graduate	20.2
Graduate School or Post Graduate	7.7
Declined to Answer	6.3

The most frequent respondent was the child's mother at 85.1%. The most frequent home language was English at 71.2% followed by Spanish at 28.4%. The most frequent parent education level of the respondents was some college, followed closely by high school graduate and college graduate.

Student data. The collection of individual student data from those students whose parents returned the survey allowed me to look for relationships between myON usage, varying demographic groups, and student reading scores. The individual student myON usage data included the number of books opened, number of books read, total hours of reading, and timestamps of when students logged in and out of myON. The individual student demographic data included gender, SES (identified through participation in NSLP), race/ethnicity, home correspondence language, ELD status, and

parent education level. The individual student reading data included the student's beginning and end of year STAR Early Literacy Assessment scale scores for students in kindergarten and first-grade and the beginning and end of year STAR Reading Assessment scale scores for students in second-grade.

Teacher survey (see Appendix A). The teacher survey questions were piloted with teachers from kindergarten classrooms at another school within the district. The teacher survey included likert scale questions about the general literacy practices of the classroom to include questions about class usage of traditional print books, digital technology, and myON. Additional likert scale questions were asked about the assignment of reading homework and the amount of communication provided to parents to support literacy at home as well as the use of myON. The last survey question asked if the teacher was interested in participating in a follow-up semi-structured interview.

Parent survey (see Appendix B). The parent survey questions were piloted with parents from first-grade and kindergarten classrooms at another school within the district. The parent survey asked likert scale questions about the general family literacy practices, the use of digital technology, and the use of myON in the home. Additional open-ended questions were asked about who participates in the various activities with the TK-2 child. The last question asked if the parent was interested in participating in a follow-up semi-structured interview. The survey was printed in both English and Spanish.

Data Reduction and Analysis

The individual student data, their parent's survey responses, and teacher survey responses were coded and entered into Excel and uploaded to SPSS v. 23 for analysis. I stored all data on my personal password-protected computer in an encrypted and

password-protected folder. The data within these computer programs was only accessible by me, with a username and password only known by me. The Disk Utility function on a MacBook Pro computer provided 128-bit AES encryption. All paper copies of survey responses were locked in a file cabinet in my home. I began analyzing the quantitative data as soon as the parent and teacher consent forms were completed and collected. Thus, data analysis occurred simultaneously with additional data collection.

The quantitative analysis included the use of SPSS to determine descriptive statistics (number of participants, minimum, maximum, mean, and standard deviation), and some inferential statistics (ANOVA tests, t-tests, correlation). Descriptive statistics were conducted on overall, grade level, and individual student myON usage data, demographic data, NSLP data, and STAR reading data. ANOVA tests and t-tests were run in SPSS to determine if there was a statistically significant difference between myON usage and each of the demographic categories.

Descriptive statistics were run using SPSS on the teacher likert scale survey responses. Patterns of each of the survey rankings by teacher demographics were investigated using inferential statistics. ANOVA tests in SPSS were run to identify group differences in likert scale rankings in general literacy activities, activities using traditional print books, activities using digital technology, and activities specifically using myON according to grade level taught, and teacher age range. Independent-samples t-tests were conducted to compare likert scale rankings in general literacy activities, activities using traditional print books, activities using digital technology, and activities specifically using myON between teachers with a Bachelor's degree and those with a Master's degree. Correlational analyses determined if statistically significant relationships existed between

the number of years teaching with likert scale rankings in general literacy activities, activities using traditional print books, activities using digital technology, and activities specifically using myON.

Descriptive statistics were run on the parent likert scale survey responses. Patterns of each of the survey rankings by parent demographics were investigated using inferential statistics. ANOVA tests identified group differences in likert scale rankings regarding the frequency of home literacy activities with their child according to parent education, and ethnicity. Independent-samples t-tests were conducted to compare likert scale rankings regarding the frequency of home literacy activities with their child between females and males, low SES and not low SES, and between English language learners and English only students.

Phase Two

Participant Sample

A subset of nine TK-2 classroom teachers and three school personnel who supported the student implementation of myON were invited to participate in a semi-structured interview. The sample size range recommended for a phenomenological study is between six and ten (Mertens, 2015). These teachers were those who indicated a willingness to participate in a follow-up interview as part of the classroom literacy practices survey collected in Phase One. Teachers were selected to create a balance between the grade levels represented, the amount of student myON usage in the classroom, and the amount of student myON usage at home. In order to gather data representing a wide range of myON usage, the balance included a combination of teachers whose students showed high myON usage with those teachers whose students do

not use myON. The principal, family liaison, and after school teacher were also invited to participate in an individual semi-structured interview.

Recruitment Procedures

Selected teachers and school personnel, who agreed to participate through returning the completed consent forms, with an indication of willingness to participate in Phase Two, were interviewed. I contacted selected interviewees through district email. I provided an overview of the study and the procedures for the interview in the email message. I asked participants to offer dates and times to be scheduled in 45-minute increments at a time and location that was convenient to them. I gave each participant a small monetary incentive through the form of a gift card as a thank you for participating in the interview.

The consent form (see Appendix I and J) that was completed in Phase One detailed the procedures and purpose of the interview, explained the risks and benefits of participation, and emphasized confidentiality. I brought a copy of the previously signed consent to the predetermined location on the day of the interview. I reviewed the form, and answered any questions the participant had. In addition, I asked each participant if the interview could be audio recorded. Since all of the participants agreed, I reviewed the audio recording consent form (see Appendix L) and asked each participant to initial and sign the document. Consent forms were obtained from all program participants prior to conducting the interview.

Data Collection and Instrumentation

The data collection in Phase Two included the audio recording and transcription of one on one semi-structured interviews conducted with nine teachers and three school personnel.

Teacher interview (see Appendix C). The goal of the teacher interview was to find out more about teachers' beliefs and values about literacy, the possible use of myON to teach literacy, as well as how the teachers' beliefs and values compared to the parents' beliefs and values. For each semi-structured interview, I followed an interview schedule that asked questions that sometimes built upon the teacher's previous survey responses. The teacher interview questions were piloted with teachers from first-grade and kindergarten classrooms at another school in the district. Each interview lasted approximately 45-minutes. All interviews were conducted in English in a location of the teacher's choosing.

Teachers were selected to create a balance between the grade levels represented, the amount of myON usage in the classroom, and the amount of myON usage of students at home. The demographic data of the nine teachers who agreed to be interviewed for Phase Two of the study are provided (see Table 4). All nine teachers were female with eight identifying as White, while one self-identified as Hispanic White. The ages ranged from 35 to 67 years old (M = 51.77). The age range of 50-59 was the most common with five out of nine teachers matching that category. The years of experience ranged from two to 30 years (M = 17.11). At the time of data collection, three of the teachers taught TK/K, three taught first-grade, two taught second-grade, and one taught a combination first and second-grade class.

Table 4. Phase Two Teacher Participant Demographic Data

Participant	Grade taught	Age range	Years of teaching	Ethnicity	Highest degree
Jane	TK	50-59	30	White	Bachelor's
Candy	K	50-59	20	White	Bachelor's
Tess	K	40-49	7	White	Master's
Sally	1	60-69	18	White	Bachelor's
Fran	1	50-59	2	White	Master's
Linda	1-2	50-59	29	White	Bachelor's
Jessica	2	50-59	21	White	Bachelor's
Olivia	2	30-39	6	Hispanic/White	Master's
Amy	2	40-49	21	White	Bachelor's

Note. All names are pseudonyms.

All of the nine teachers were classified as Highly Qualified Teachers, which required a Bachelor's degree and multiple subject teaching credential. In addition to the Bachelor's degree and credential, three of the teachers had a Master's degree.

School personnel interview (see Appendix D). The goal of the school personnel interview was to gather information about each individual's values and beliefs about literacy, the use of technology in education, and family participation. A semi-structured interview included an interview schedule that asked questions about the individual's experiences learning to read and write, their role in supporting the daily classroom and literacy activities students participated in, and their role in supporting parents in family literacy practices. The school personnel interview questions were piloted with an elementary school principal from another school within the district. Each interview lasted

approximately 45-minutes. All interviews were conducted in English in a location of the individual's choosing.

The demographic data of the three school personnel who agreed to be interviewed are provided (see Table 5). All three of the school personnel were female. Their ages ranged from 26 to 66 years old for a range of 40 years. Their years of experience in education were also quite varied with the principal having the most years at 20, and the other two participants as having two and three years of experience resulting in a range of 18 years. Only one of the school personnel identified as being Hispanic, while the other two identified as White.

Table 5. Phase Two School Personnel Participant Demographic Data

Participant	Position	Age range	Years working in education	Ethnicity	Highest degree
Charlotte	Principal	50-59	20	White	Master's
Christine	Community Liaison	20-29	2	Hispanic	N/A
Sara	After School Teacher	60-69	3	White	N/A

Note. All names are pseudonyms.

Since the Community Liaison and the after school teacher do not require a degree or teaching credential, their education level is not available in the district staff information report.

Positionality as an Insider

At the time of this study, I was employed as a district administrator in the role of Early Literacy Coordinator in the Curriculum and Instruction department in the school district where this study took place. My positionality may have prevented teachers and

school staff from being completely honest in their responses on the surveys and interviews. Teacher and school personnel participants may have felt that they needed to answer questions in a certain way or possibly be judged negatively by me. I attempted to minimize these limitations as much as possible by reminding the participants that all responses would be kept confidential and that they could decline to answer any questions at any time, as well as withdraw from the study with no ramifications. I encouraged open and honest responses by assuring participants that my role was to gather data that would help move students forward in literacy. In addition, my positionality may have caused teachers and school staff to leave things out of their responses because they may have assumed that my "insider" role as an educator meant that I already had the information. In consideration of this possibility, I listened closely to responses to determine when follow-up questions were necessary to gather additional information. Furthermore, since I relied on teacher and school staff volunteers to act as survey respondents and interview participants, the participants may not have represented a cross-sectional sample of the broader teacher population of the school or district of which this study took place.

Data Reduction and Analysis

Immediately following each interview, I recorded detailed field notes in MAXQDA12 (2015) to capture the setting, context, and researcher's thoughts about important points that should be revisited when coding the transcript. I transcribed the audio recordings of the teacher and school personnel interviews using HyperTranscribe (2013) within one month of conducting each interview. All of the transcripts were uploaded and coded in MAXQDA12 (2015). The first data reduction included a deductive process by applying a priori codes as well as an inductive process where

additional codes emerged (Sipe & Ghiso, 2004). The a priori codes that had been identified based on the review of relevant literature and previous pilot projects regarding the topic of literacy and the use of myON are provided (see Table 6).

Table 6. Teacher and School Personnel Interview a Priori Codes

Topic	Code
Competing initiatives	CI
Content	CO
Curriculum	CU
Encourage reading	ER
Home usage	HU
Homework	HW
Literacy events	LE
Parent communication	PC
Student challenges	SC
Student grouping	SG

An open coding process followed in which I read the transcripts several times in order to determine applicable a priori codes as well as emergent codes. I conducted intercoder reliability checks by having peers and dissertation mentors code using the same blocks of transcripts. As codes developed or changed, I continually recoded the transcripts in MAXQDA12 (2015), and developed supporting matrices (Miles & Huberman, 1994) to determine patterns and themes that emerged from the open coding process (see matrices in Appendix N).

Phase Three

Participant Sample

During Phase Three, I conducted semi-structured interviews of a subset of nine parents of the students in TK-2 at Mighty Elementary (Mertens, 2015). I selected these

parents from 122 parents who indicated a willingness to participate in a follow-up interview as part of the parent survey collected in Phase One. I selected parents to match the teachers who agreed to an interview, the myON usage at home versus no myON usage at home, gender, and SES. The characteristics of the selected interview candidates' children (see Table 7) closely represented the demographics of the 208 survey respondents:

Table 7. Phase Three Parent Interviewees' Children's Demographic Data

Student name	Student grade	Teacher	Gender	Ethnicity	ELD status
Franco	TK/K	Jane	M	Asian/ Pacific Islander	English Only
Elliot	TK/K	Candy	M	Hispanic	English Learner
Layla	TK/K	Tess	F	White	English Only
Mary	1	Sally	F	White	English Only
Gretchen	1	Fran	F	Hispanic	English Learner
Carissa	1	Linda	F	White	English Only
Ned	2	Jessica	M	Hispanic	English Only
Andy	2	Olivia	M	Hispanic	English Learner
Ariel	2	Amy	F	African American	English Only

Note. All names are pseudonyms.

The children of the selected parents equally represented each grade level span, with one student from each of the nine interviewed teacher's classrooms. In addition to balancing the grade levels and classrooms, I selected participants to closely represent the demographic statistics of the 208 families who responded to the survey in Phase One. The gender, ethnicity, and ELD status of the students are shown in Table 7, while the parent relationship to the child, the family SES, the selected parent's education level, and home language preference are shown in Table 8.

Table 8. Phase Three Parent Interviewee Demographic Data

Relationship	Child's Name	SES	Education Level	Home Language
Mother	Franco	Low	High School Grad	English
Mother	Elliot	Low	Not High School Grad	Spanish
Mother	Layla	Not Low	College Grad	English
Mother	Mary	Not Low	College Grad	English
Father	Gretchen	Low	Not High School Grad	Spanish
Mother	Carissa	Low	Some College	English
Mother	Ned	Low	Some College	English
Father	Andy	Low	Not High School Grad	Spanish
Mother	Ariel	Not Low	High School Grad	English

Note. All names are pseudonyms.

The nine children of the parents who I interviewed in Phase Three closely represented the demographics of the 208 students whose parents completed the family literacy survey in Phase One. As shown in Table 9, the largest difference of 13.8% is seen between the Phase One participants identifying as Hispanic (58.1%), while the percent of those selected for the interview was 44.4%. As shown in Table 9, all other demographic categories varied by six percent or less.

Table 9. Phase One and Phase Three Student Participants as a Percentage of Demographic Categories

Category	Phase One participants (*N*= 208)	Phase Three participants (*n*=9)
Gender		
Female	55.3	55.6
Male	44.7	44.4
Grade		
TK/K	32.2	33.3
1st	38.9	33.3
2nd	28.8	33.3
ELD Status		
English Learner	27.9	33.3
Race/Ethnicity		
Hispanic/Latino(a)	58.2	44.4
White	27.4	33.3
Other	14.4	22.2
SES Status		
Disadvantaged[a]	69.7	62.0

[a]Disadvantaged socioeconomic status determined by student enrollment in National School Lunch Program (NSLP).

The Phase Three participants selected for the interview closely represented the demographic description of the Phase One participants who responded to the family literacy survey.

Recruitment Procedures

A bilingual research assistant or I contacted selected participants by telephone in the correspondence language listed in the district student information system. Parents were given an overview of the study and the procedures of the interview. The interview date and time was scheduled to last 45-minutes in the participant's home at a time that was convenient to the participant. I conducted the English interviews. A research

assistant conducted the Spanish interviews, while I accompanied the assistant as an observer. Parents who participated in the interview were given a small monetary incentive through the form of a gift card as a thank you for participating in the interview.

The consent form that was completed in Phase One (see Appendix K) detailed the procedures and purpose of the interview, explained the risks and benefits of participation, and emphasized confidentiality. A copy of the previously signed consent form was brought to the predetermined location on the day of the interview. I reviewed the form, and answered any questions the participant had. In addition, the participant was asked if the interview could be audio recorded. All of the participants agreed, so I reviewed the audio recording consent form (see Appendix L) and asked each participant to initial and sign the document. Consent forms were obtained from all program participants prior to conducting the interview.

Data Collection and Instrumentation

The data collection in Phase Three included the audio recording and transcription of one to one semi-structured interviews with a subset of nine parents.

Parent interview (see Appendix E). The goal of the parent interview was to gather information about the parent's literacy beliefs and values by asking questions about the routine literacy practices in the home context. Weisner (2002) suggests asking family members about their daily practices in order to get a glimpse of their cultural repertoires. The parent interview questions were piloted with parents of kindergarten students at another school within the district. All interviews, depending on the parent's preference, were conducted in either English or in Spanish. I conducted the English interviews, while a research assistant conducted the Spanish interviews. The interviews

lasted approximately 45-minutes. All parent interviews were conducted in the students' homes, with the exception of one interview that was conducted in the parent's place of employment.

Positionality as an Outsider

As a White English speaking female researcher in her mid-forties working as school district administrator, I may have caused parents to respond to survey and interview questions in a way that they perceived to be socially desirable. In an attempt to mitigate the socially desirable bias, during the English interviews, I encouraged open and honest responses by assuring participants that the goal of the interview was to gather data that would tell the story of their home literacy experiences. A Hispanic Spanish speaking male conducted the Spanish interviews. This research assistant was selected with the goal of mitigating the socially desirable bias from the Hispanic families by having a male interviewer who could identify and communicate with families in their home language. In an attempt to assure the most accurate parent interview responses as possible elicited from the bilingual research assistant, I helped him to become familiar with the nuances of the study, the digital library myON, and the demographic characteristics of the families being interviewed. In addition, I reviewed the dissertation proposal with the assistant and went over the interview questions prior to scheduled interviews so that the assistant was as prepared as possible once the interviews began. Furthermore, since I relied on parent volunteers to act as survey respondents and interview participants, the participants may not have represented a cross-sectional sample of the broader parent population of the school or district of which this study took place.

Data Reduction and Analysis

Immediately following each interview, I recorded detailed field notes in MAXQDA12 (2015) to capture observational details about the student's home, other family members present in the home, and my thoughts about important points that should be revisited when coding the transcript. In the cases where the interview was completed in Spanish, the research assistant who conducted the interviews created an audio recording of the English interpretation of the original Spanish interview. I transcribed the English interpretation. I transcribed a total of four of the audio recordings of the parents using HyperTranscribe (2013) within one month of conducting each interview. Due to the extensive time demands of transcription, I hired a professional transcription company to complete transcriptions of the remaining five audio recordings. Upon completion of the professional transcripts, as a reliability check, I reviewed each professional transcript while listening to each audio recording. I made minor revisions to the professional transcripts to match the format of the transcriptions that had previously been created. All of the transcripts were uploaded and coded in MAXQDA12 (2015). The audio recordings of the parent interviews were transcribed using HyperTranscribe (2013) and coded in MAXQDA12 (2015). Similar to the school context interviews, the first data reduction included a deductive process by applying a priori codes as well as an inductive process where additional codes emerged (Sipe & Ghiso, 2004). The a priori codes that had been identified based on the review of relevant literature and previous pilot projects regarding the topic of literacy and myON are provided (see Table 10).

Table 10. Parent Interview a Priori Codes

Topics	Code
Competing initiatives	CI
Encourage reading	ER
Home usage	HU
Homework	HW
Literacy events	LE
Language	LN
Parent control	PC
Parent support	PS
School communication	SC
Student challenges	SH

The open coding process was followed for the parent transcripts, whereby I read the transcripts several times in order to determine applicable a priori codes as well as emergent codes. I conducted intercoder reliability checks by having peers and dissertation mentors code using the same blocks of transcripts. I continually recoded the transcripts in MAXQDA12 (2015) as codes emerged or changed, then ran reports and developed supporting matrices (Miles & Huberman, 1994) to determine patterns and themes that emerged from the open coding process (see matrices in Appendix N).

A summary of the participants, type of data collection, and timeline by phase are shown below in Table 11.

Table 11. Participation and Data Collection by Phase

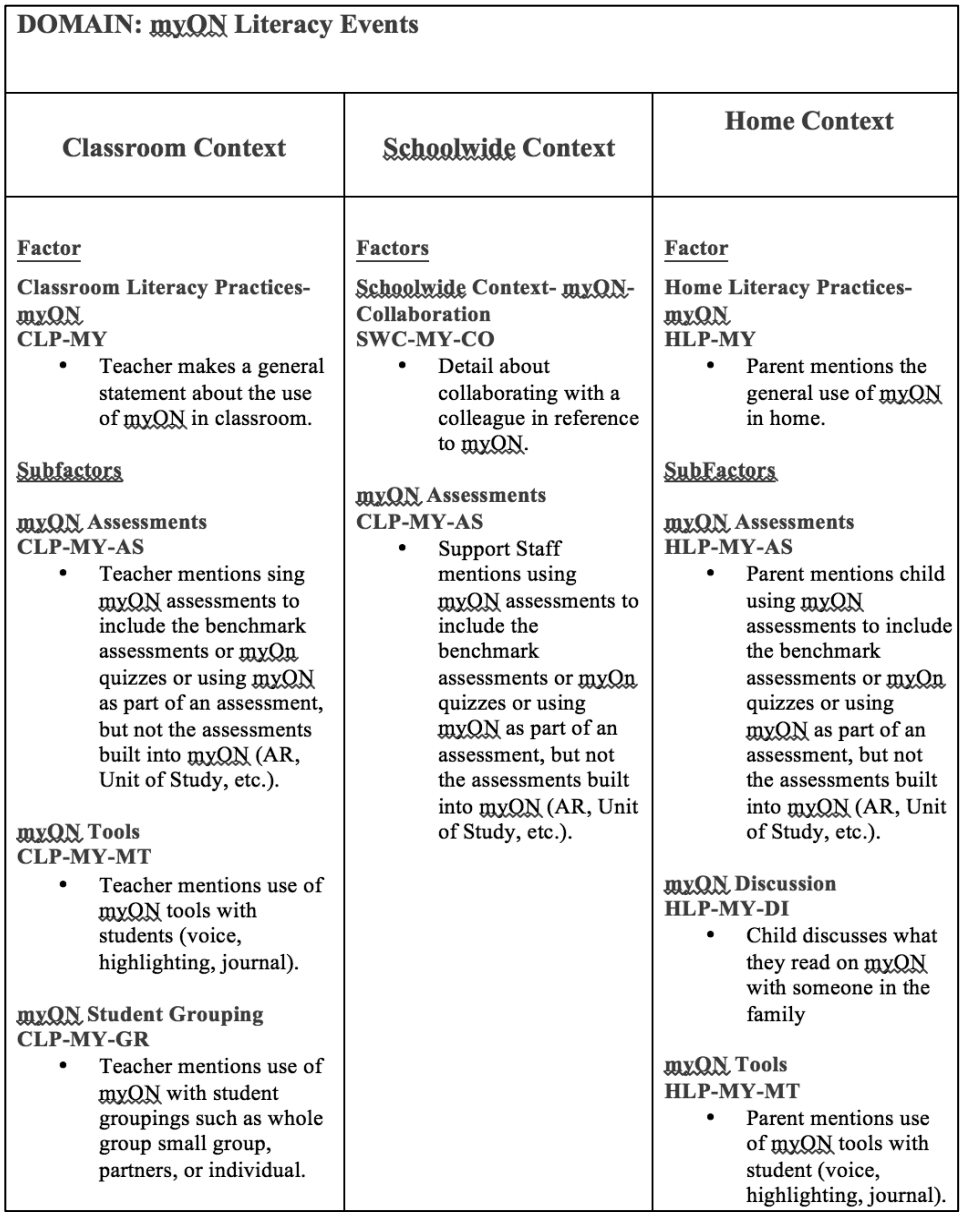
	Phase One: Survey (May, 2016)	Phase Two: School interviews (Mid May - June, 2016)	Phase Three: Home interviews (June, 2016)
Teacher Participants	13 TK-2 teachers invited to participate Completion of voluntary, confidential paper survey takes five-minutes	Nine TK-2 teachers invited to participate 45-minute in-person interview in location of teacher's choosing	N/A
School Personnel Participants	N/A	School principal, family liaison, and after school teacher invited to participate 45-minute in-person interview in location of participant's choosing	N/A
Parent Participants	299 parents of TK-2 students invited to participate Completion of voluntary, confidential paper survey takes five-minutes	N/A	Nine parents of TK-2 students invited to participate 45-minute in-person interview in participant's home

The timeline for data collection was May, 2016 through June, 2016 (see Appendix M for complete Dissertation Timeline).

Teacher, Support Staff, and Parent Interview Coding Matrices

As mentioned in the previous sections, I followed an open coding process for the teacher, support staff, and parent interview transcripts such that the transcripts were read several times in order to determine applicable a priori codes as well as emergent codes. As I continually recoded the transcripts in MAXQDA12 (2015) new codes emerged and some of the a priori codes were unnecessary. I ran reports within MAXQDA12 (2015) and developed supporting matrices (Miles & Huberman, 1994) to determine patterns and themes that emerged from the open coding process. The codes were categorized into six

domains to include school and district technology support, non-digital literacy events, myON literacy events, other digital programs, mediating factors between school and home, and perceptions/concerns. I created a matrix for each domain and each code was identified as a factor or subfactor within the contexts of classroom, schoolwide, or home. A screenshot of a page from one of the matrices is shown below (see Figure 4).



DOMAIN: myON Literacy Events

Classroom Context	Schoolwide Context	Home Context
Factor **Classroom Literacy Practices-myON** **CLP-MY** • Teacher makes a general statement about the use of myON in classroom. **Subfactors** **myON Assessments** **CLP-MY-AS** • Teacher mentions sing myON assessments to include the benchmark assessments or myOn quizzes or using myON as part of an assessment, but not the assessments built into myON (AR, Unit of Study, etc.). **myON Tools** **CLP-MY-MT** • Teacher mentions use of myON tools with students (voice, highlighting, journal). **myON Student Grouping** **CLP-MY-GR** • Teacher mentions use of myON with student groupings such as whole group small group, partners, or individual.	**Factors** **Schoolwide Context- myON-Collaboration** **SWC-MY-CO** • Detail about collaborating with a colleague in reference to myON. **myON Assessments** **CLP-MY-AS** • Support Staff mentions using myON assessments to include the benchmark assessments or myOn quizzes or using myON as part of an assessment, but not the assessments built into myON (AR, Unit of Study, etc.).	**Factor** **Home Literacy Practices-myON** **HLP-MY** • Parent mentions the general use of myON in home. **SubFactors** **myON Assessments** **HLP-MY-AS** • Parent mentions child using myON assessments to include the benchmark assessments or myOn quizzes or using myON as part of an assessment, but not the assessments built into myON (AR, Unit of Study, etc.). **myON Discussion** **HLP-MY-DI** • Child discusses what they read on myON with someone in the family **myON Tools** **HLP-MY-MT** • Parent mentions use of myON tools with student (voice, highlighting, journal).

Figure 4. Screenshot of page from code matrices (see Appendix N for all matrices).

The six domain specific matrices showing all factors and subfactors are included in the appendix (see Appendix N). I used the coding process and the development of the matrices to determine patterns, themes, and findings.

Developing Findings

I answered the overarching research question, "In what ways is the use of a digital library integrated in the literacy and language repertoires of practice in the sociocultural contexts of home and school?" through a thorough review of the data collected from the three phases. My data analysis included descriptive statistics, quantitative inferential statistics, mixed methods pattern analysis, qualitative determination of emerging patterns and themes connected to each of the sub-questions, and the development of a Hierarchical Linear Model (HLM). The following section describes the specific data that were analyzed when answering each sub-question.

Research Sub-question One

How are teachers and students integrating a digital library into their literacy and language practices in early elementary classrooms? I answered this question by analyzing the descriptive statistics gathered from Phase One including student myON usage data, demographic data, NSLP data, and STAR reading data. Statistical analyses of the teacher surveys determined if statistically significant relationships existed between demographic teacher data with likert scale rankings regarding classroom literacy practices. The patterns identified through the teacher interviews also revealed teacher beliefs, values, and practices regarding literacy and the use of technology in the classroom. I used triangulation to make connections between the quantitative and qualitative data and to

check the accuracy of responses obtained from the teacher surveys and interviews with the student myON usage data.

Research Sub-question Two

How are students and family members integrating a digital library into their literacy and language practices in their homes? I answered this question by analyzing the descriptive statistics gathered from Phase One including student myON usage data, demographic data, NSLP data, and STAR reading data. Statistical analyses of the parent surveys determined if statistically significant relationships existed between demographic data with likert scale rankings regarding home literacy practices. The patterns identified through the parent interviews also revealed parent beliefs, values, and practices regarding literacy and technology usage in the home. I used triangulation to make connections between the quantitative and qualitative data and to check the accuracy of responses obtained from the parent surveys and interviews with the student myON usage data.

Research Sub-question Three

How is the use of a digital library in both the school and home working as a mediating influence on the interactions between the teachers, students, and families? I cross-referenced the teacher and parent survey responses and the teacher, school personnel, and parent interview patterns to determine where commonalities as well as discontinuities existed between the responses given from the school and home context.

Research Sub-question Four

How does the infrastructure and support staff of a school impact the implementation of a digital library in the school and home? I used rich description to describe the infrastructure and support staff as determined through teacher, parent, and

school personnel patterns that emerged from the analyses of the interviews. I used triangulation to check the accuracy of responses obtained from the school personnel interviews with the teacher and parent survey and interview responses as well as the individual student myON usage data.

Overarching Research Question

In order to analyze the hierarchical nature of students being nested within school, classroom, and home contexts, I developed multilevel models to explore which teacher level and student level variables had a significant effect on overall myON usage. I explored conditional models using the Hierarchical Linear Modeling software, HLM 6, (Raudenbush, Bryk, & Congdon, 2004) to look at level one (student) and level two (teacher) variables with student myON usage as the outcome. The student level variables included parent education level, race/ethnicity, after school program participation, low SES, and number of technology devices in the home. The teacher level variable included grade.

Summary of Research Design and Methods

I conducted a mixed-methods phenomenological study with three sequential phases whereby data was collected to answer the research questions regarding the integration of a digital library in both the school and home context. The participants included TK-2 teachers, school personnel, and parents of TK-2 students. The methodology included the collection of student demographic and reading data, teacher and parent literacy surveys, and one on one interviews with teachers, school personnel, and parents. Reduction and analysis of the data led to the findings detailed in the next three chapters. In Chapter Four I provide a group level description of the digital

infrastructure and support staff services provided within the school and extended into the home settings of the TK-2 participants. I also provide a group level description of the classroom literacy practices explored through the lens of code-focused and meaning-focused literacy events. In Chapter Five, I describe the characteristics common to the group in regards to homework and home literacy practices. In Chapter Six, I explore meaningful differences that exist between and within participant groups found in the contexts of school and home. I conclude the dissertation in Chapter Seven with a discussion regarding key findings and implications for Mighty Elementary, the broader educational community, policy and practice, theory, and future research.

Chapter 4: Group Characteristics of School Infrastructure and Classroom Practices

This study examined the degree to which parents and teachers of TK-2 children integrated a digital library into their routine literacy and language repertoires of practice in the sociocultural contexts of home and school. Drawing on the specific sociocultural practices of the school, this chapter describes the characteristics common to the group of school support staff and TK-2 teachers. I used an analytical lens that was based on language socialization theory (Ochs & Schieffelin, 2008) and operationalized through the cultural communities framework presented by Rogoff (2003) to present the findings.

I begin this chapter with a group level description of the digital infrastructure and support staff services provided within the school and extended into the home settings of the TK-2 participants. This description revealed that Mighty Elementary had a strong school infrastructure conducive to integrating the digital library myON into the daily classroom practices. In the second section of this chapter, I provide a detailed group level description of the classroom literacy practices explored through the lens of code-focused and meaning-focused literacy events. This description revealed that the strong digital infrastructure resulted in TK-2 teachers at Mighty Elementary integrating text from myON into their meaning-focused classroom activities.

School and Home Infrastructure

In this section, I respond to the following research sub question: How does the infrastructure and support staff of a school impact the implementation of a digital library in the school and home? I determined through the collection and analysis of survey and interview data that Mighty Elementary had a solid digital infrastructure in the school context with a concerted effort from the teachers and support to provide the same

infrastructure for students at home; however, 15.9% of the TK-2 students did not have access to at least one digital device with Internet access in their home (see Table 12).

The digital infrastructure within the school provided hardware, software, network resources and services to all teachers, school staff members, and students within the school context. All teachers, students, and support staff had the opportunity to access the digital library myON through one to one devices, Internet access, and individual licenses for myON within the school context. Teacher and support staff interview responses revealed that every teacher and support staff employee recently received a new district computer to include a desktop with a detachable touchscreen laptop. As described below by the school principal and corroborated through teacher interviews, one to one devices were provided for each student in grades TK-5 with variations in the type of device across grade levels and classrooms:

> Kindergarten and first-grade are basically one to one with iPads. There are a few Chromebooks, primarily in a first-grade classroom because she [the teacher] has a set of them because she moved from third to first and really wanted to stay with the Chromebooks. A few others, where teachers have said I would really like the Chromebooks as well if you can let me have a few for my class. Second through fifth-grade is completely one to one with Chromebooks. We've had two computer labs, this year we went down to one. (Interview, Charlotte, principal)

In addition to digital access within each classroom, approximately 140 students were provided access to digital devices each afternoon while participating in one of the two after school programs. After school program teacher, Sara, noted the number and types of digital devices available to students during the program, "We only have 10 Chromebooks and 10 more on order. We have 20 iPads…We usually have the library that has 15-20, and the computer room … they have at least 25 in there." She went on to describe a

rotational system that allowed all of the 80 students enrolled in her program to have access to a device during a large portion of the three hours of which they were in the program each afternoon.

High speed Internet was necessary to access myON and was provided through the district at Mighty Elementary. One teacher referenced a challenge of the Internet occasionally not working in her classroom. This second-grade teacher emphasized the frustration felt when attempting to project a myON book for the whole class when the Internet went out:

> We would use one whole class, big screen, and that's when the thing would freeze. They had problems when I was in fifth-grade; they had to put in more [bandwidth]. Our biggest trouble has been at the end of the month when everybody is trying to do their AR [Accelerated Reader]; we're getting bumped off left and right. Which is really annoying. When you've planned your lesson around a book that you're gonna do on myON, that's a catastrophe. (Interview, Jessica, second-grade teacher)

The principal also mentioned this concern and stated that the district IT department was contacted when this happened, “IT comes immediately when called. They try to be responsive to our needs, but have not found the proper solution.” My analysis of all school level interviews revealed that the Internet issue only occurred in one wing of classrooms at the school. This wing primarily housed third through fifth-grade classrooms. Jessica was the only TK-2 teacher participant in this study impacted by the Internet failure challenge; however, her concern showed the importance of having a strong digital infrastructure to include Internet when attempting to integrate a digital library into daily classroom practices.

The previously described infrastructure was part of the district initiative to provide personalized learning for all students through a blended learning environment,

which allowed students to learn traditionally as well as through computer adaptive programs. The myON license was one of several TK-5 personalized learning programs the district purchased for all teachers and students. When I asked second-grade teacher, Jessica, how she made instructional decisions about the amount and type of screen time her students should have, she responded, “It is kind of the district that makes the decision. They bought myON, they bought Lexia, and they bought ST Math. Then the Smarty Ants was an add-on that we got to try.” My analysis of all school and home interviews revealed that there were several programs in addition to myON available for teachers and students with some purchased by the district and others purchased by the school.

The digital infrastructure in the homes determined whether or not all students had access to their myON license outside of the school context. In order to determine accessibility at home, parents were asked in the Family Literacy Survey what type of digital device their child used and whether or not they had high speed Internet in their home. The descriptive statistics of those responses indicated that 84.10% of students in the study had access to at least one digital device with Internet access in their home (see Table 12).

Table 12. Child Access to Digital Devices and High-Speed Internet

Category	Percent (*N*=208)
Computer	64.90
Cell phone	57.20
iPad/tablet	83.7
Chromebook	15.40
Access to one device	22.60
Access to two devices	40.90
Access to three devices	26.40
Access to four devices	9.60
No access to a digital device	0.50
Access to high-speed Internet	84.10

Analysis of school interviews revealed a concern from all support staff and all but one teacher that a few students in every class did not have access to a device and/or Internet in their home. The teacher and school staff participants' concerns were aligned to the national concern regarding the "digital divide" whereby students whom are economically disadvantaged, underrepresented, and learning English as a second language tend to have less access to computers and the Internet (CDE, 2014). Several participants pointed out how families without Internet in their home often accessed Internet through a community center, the public library, or through hotspots sent from their cell phone. Franco's mother corroborated this experience of how her children accessed digital technology without Internet in their home when she explained, "They bounce off our hotspot," (Interview, Franco's mother, TK student). All participants also referenced the school's efforts in trying to help families without access to receive a device through the San Diego

Computer to Kids program and low-cost Internet through Cox Connect. A second-grade teacher reflected on how she communicated on the availability of this resource with parents:

> At the beginning of the year we sent home the inexpensive computers [flier] that they can purchase, so I have a huge talk to my students about it. I remember talking to parents about it at, there's a day before school starts that they get to come and pick their stuff up and we pass out information. I talk to my students about how important it is that they have one at home. I really talk up the paper; "Look you can get a computer for $50.00. You will have your own." "My mom doesn't let me use her computer." I said, "Here, you'll have your own." How much less can it get. It has really inexpensive Internet access. I talk to the parents about it. I show them the paper at Back To School and tell them how important it's gonna be this year and for now on how everything has changed to digital and here is the cheapest computer you're ever gonna get and you can get Internet access next to nothing. I had, usually about two-thirds have computers, and then out of the other one-third I usually get four or five parents that do get a computer through there. (Interview, Amy, second-grade teacher)

In addition to Amy, several teachers, support staff, and parents also mentioned the school event before the academic year began where parents came to school and received information about how they could support their child throughout the upcoming school year. Another example of parent support that was suggested at the school event was to have children access the digital programs at home. The principal shared the following template (see Figure 5) as an informational resource each parent received for his or her child upon attendance at the event.

Franco Friend - Kindergarten- Smith	
Google email **(Chromebook log in)**	**username:99999999** **password: cloud connect password**
Lexia Core 5 www.lexiacore5.com	**username:999999999** **password: 111111**
AR (Reading and Math)	**username: 999999999** **password: abc**
MyOn https://www.myon.com/	**username: 999999999** **password:111111**
Raz Kids https://www.kidsa-z.com/main/Login	**username: 999999999** **password: 111111**
ST Math http://web.stmath.com/	**username: 999999999** **password: 13 character symbols**

Figure 5. Sample of laminated student card showing digital program information.

During a parent interview of second-grade student Andy, the mother mentioned this event and the laminated card. During the interview, she went to the kitchen and retrieved the card to show the research assistant how it provided all of the information necessary for her son to access the school programs at home. Eight out of nine classroom teachers mentioned during the teacher interviews how they communicated information about the digital programs with parents through a variety of venues such as grade level parent nights, newsletters, and homework. As described below, the kindergarten teachers offered a special kindergarten technology night where parents could bring in a digital device and receive support in downloading student programs and learn how to log into the programs with their child:

> The school has done technology nights where they have the parents bring a device and help them download all of the apps. I did that at the September meeting. We had the parents bring their device and we showed them all of the programs and helped them log on. If there was an app, like Raz-Kids, we helped them download it. We gave them all of their students' usernames and passwords. (Interview, Candy, kindergarten teacher)

The school provided additional support to parents at a school technology event in the spring, during parent conferences, and other meetings scheduled throughout the school year. The principal described the technology event held in the spring:

> We probably had 30 families there. They came and learned about the different programs. The CSRTS [district resource teachers] led the night. They learned about the different programs…We had technology night with a 30-minute overview of the personalized learning programs that your child has access to. Then they rotated through each program and actually got to try them out. They got that little log-on sheet that we made all pretty and laminated them so they could take them home. It lasted about an hour and a half. (Interview, Charlotte, principal)

The teacher and support staff of Mighty Elementary attempted to build a bridge between school and home through several parent events throughout the school year to include the before school information session, Back to School Night, Kindergarten Technology Night, and a parent technology session in the spring. The purpose of the events was to provide student access to the digital programs in the home context by supporting families in having access to a digital device, Internet, and information about each of the educational digital programs. Previous studies have shown an association between children living in poverty and low early literacy development often due to lack of resources (Burchinal & Forestieri, 2010; Rodriguez et al., 2009). The Mighty Elementary outreach events were an attempt to provide digital resources for those families in need of support.

Community Liaison Program

The community liaison program also provided support for parents in accessing digital resources to support their child's education. The community liaison, Christine, was available to support parents in many capacities. Christine sat in the front office where she served as a Spanish interpreter. She sat in the front office so that she could be available to work as a liaison when parents were faced with any concerns about their child's education. She found that several parents struggled in supporting their child due to a language barrier. One example Christine shared was indicative of similar situations in which she attempted to support families by suggesting the use of the digital programs at home:

> There has also been another mom in first-grade who says her child hasn't turned in any of his homework because of the same problem. Because of the language…We just told the mom that she needs to help him with him getting on with the other school programs like ST Math, myON, and Lexia and that would help him. (Interview, Christine, Community Liaison)

In addition to serving as an interpreter, Christine held English classes and computer literacy classes for parents. Christine also took pride in having directly connected families with the Cox Connect program for low-cost Internet access, "I've helped I would say at least 10 families with the Cox $10 a month and that was really cool because that is so affordable for parents. The parents know that they need that but if it's too expensive. It was really cool that Cox provides that for our parents." Comprehensive literature reviews regarding the connection between the home context for ELL students and literacy development have shown that the educational system needs to work to build a bridge between school and home because the literacy activities of the classroom may not fit the

cultural practices, values, and beliefs of the student home context (Auerbach, 1989; Baquedano-Lopez et al., 2013). The National Literacy Report, concluded that socially defined group membership influenced values, beliefs, and practices which impacted learning outcomes and that a bridge between home and school differences can "enhance students' engagement and level of participation in classroom instruction," (August & Shanahan, 2008, p. 256). The report also determined that schools seldom took advantage of the support minority families could provide for their children (August & Shanahan, 2008); however, the community liaison program at Mighty Elementary did attempt to build a bridge between school and home and was successful in connecting families with school and community resources. The result of the bridge was that more students had access to myON at home, and more parents were able to support their children in using the program.

After School Program

As mentioned previously, the after school program was another system at Mighty Elementary that supported the implementation of the digital library, myON. There were two after school programs offered in which students received homework support as well as access to the personalized digital programs. One program was AM/PM where students could attend before school, after school, or both before and after school. AM/PM was a paid childcare program that was offered on a first come first serve basis. The second program, After School Education and Safety (ASES), was free for low SES students who required academic remediation. The parents of the ASES student participants agreed that their child would attend ASES five days a week from the end of school until 6:00 pm. The after school programs were a context for students to access the digital programs they

may not have had access to at home, as well as receive support from the after school staff while using the programs. Specific details about differences in myON usage in various contexts, including the after school programs, are explored in Chapter Five. One classroom teacher mentioned how she hoped the after school program would provide an opportunity for digital access for those students who did not have it at home:

> I still have maybe one or two students who have told me that their device has had issues or they just don't have good connection. I'm hoping some of those students I think are good candidates for the after school program. I know in the after school program they have computers there and they have access to that. (Interview, Olivia, second-grade teacher)

During the home interview, Andy's father mentioned how the ASES program had a been a great source of support for their family, "Sometimes when we can't help him, he's in an after school program there they help him. They have a program called ASES. Also they help him a lot there too." The parent of another second-grade student, Ned, mentioned how Ned often wrote "… thank you cards for ladies at ASES, the after school program." An analysis of myON usage separated by classroom and after school program showed that both of these students, Andy and Ned, regularly accessed myON during ASES.

Professional Development

In addition to the hardware, software, and Internet access, all teachers and support staff were provided professional development in technology use and how to effectively use myON with students. The professional development came in the form of face-to-face presentations from district staff, webinars from the myON vendor, peer collaboration through participation in a district level cohort, and shoulder-to-shoulder classroom coaching from district resource teachers. Second-grade teacher, Olivia, in reference to projects, a teacher organization feature in myON, stated, "That's the one thing that helped

me this year. Having someone come and show me how to create projects." First-grade teacher, Sally, had a district resource teacher come and demonstrate how to use myON with her class, "I had [a resource teacher] come in here twice and we did whole group. She showed them how to search for books. She came back again and we watched them do it. They picked it up very quickly." The principal stated that the support for myON, along with support for digital integration was "ongoing" for the staff. The professional development and support provided to the Mighty Elementary teachers and support staff helped teachers align their classroom practices with the recommendations of the Common Core standards (CDE, 2010) and English Language Arts/English Language Development Framework (CDE, 2014) to create a learning environment conducive to students learning 21st century skills (Voogt & Roblin, 2010).

Rich description was used to illustrate the digital infrastructure and support staff systems available at Mighty Elementary and the students' home accessibility. My analysis of surveys and interview transcripts revealed a strong infrastructure at Mighty Elementary that supported the implementation of the digital library, myON within the school context. This infrastructure included the necessary hardware, software, network and services required to utilize the digital library. Though the community liaison and other school staff put forth an effort to extend access of the library to the home context, 15.9% of the student participants did not have Internet in their home at the time of the study, and were therefore unable to access the digital library within their home context. An alternative provided to low SES students was the opportunity to participate in the ASES after school program whereby students could utilize a digital device and access myON outside of the regular school hours. Since this first finding revealed a solid digital

infrastructure in the school context, the following section of this chapter explores how myON was being integrated into the daily literacy practices during regular school hours within the TK-2 classrooms of Mighty Elementary School.

Classroom Literacy Practices

General Literacy Practices

This section answers the following sub-question: How are teachers and students integrating a digital library into their literacy and language practices in early elementary classrooms? I found that the TK-2 teachers at Mighty Elementary integrated both traditional print and digital resources, including myON to varying degrees, into their classroom literacy practices as they provided both code-focused and meaning-focused literacy events for their students. These teachers provided opportunities for students to become literate through learning skills as well as the application of skills while engaging in meaningful text-based literacy activities. In order to gain a better understanding of teachers' beliefs and values about literacy, teachers were surveyed about the general literacy practices of their classroom. Teachers were asked to identify the frequency in which students engaged in various classroom literacy activities. The literacy practices questions were categorized into general activities, activities using traditional print books, digital technology, and myON. The descriptive statistics of the likert scale responses showed the average for all literacy activities was between four and five, with four being a few times a week and five being everyday, which represented high frequency in all literacy activities (see Table 13).

Table 13. Teacher Frequency of General Classroom Literacy Activities

General literacy activities	Minimum	Maximum	*M* (*n*=11)	*SD*
Phonemic awareness	4	5	4.82	0.41
Phonics	5	5	5.00	0.00
Vocabulary	3	5	4.36	0.67
Fluency	3	5	4.27	0.91
Comprehension	3	5	4.64	0.67
Read aloud or shared reading	4	5	4.82	0.41
Small group guided reading	3	5	4.45	0.69
Independent reading	4	5	4.82	0.41
Group discussions connected to reading	3	5	4.45	0.69
Writing connected to reading	3	5	4.18	0.60

Note. Question format: How often do your students engage in the various activities? Likert Scale Responses: 1=never, 2=few times a year, 3=few times a month, 4= few times a week, 5= everyday.

A high frequency in all of the activities is indicative of a balanced literacy program because it provided regular opportunities for students to engage in complex text (meaning-focused) while simultaneously learning foundational literacy skills (code-focused instruction) (CDE, 2014; Connor et al., 2004; Pressley & Allington, 2014).

Traditional Print

Teachers were asked in the survey to differentiate the percentage of the time each of the literacy activities specifically included traditional print. The descriptive statistics showed that teachers used traditional books to teach reading through meaning-focused opportunities for their students primarily during small group guided reading, through

writing connected to reading, through read aloud/shared reading, and group discussions connected to reading (see Table 14).

Table 14. Teacher Frequency of Classroom Literacy Activities Using Traditional Print

Activities using traditional print	Minimum	Maximum	*M* (*n*=11)	*SD*
Phonemic awareness	2	4	2.45	.69
Phonics	2	5	3.00	1.10
Vocabulary	2	4	2.45	0.82
Fluency	2	5	3.73	1.10
Comprehension	2	4	3.27	0.79
Read aloud or shared reading	3	5	3.73	0.79
Small group guided reading	3	5	4.45	0.69
Independent reading	2	5	3.60	0.97
Group discussions connected to reading	3	5	3.73	0.65
Writing connected to reading	2	5	3.82	0.98

Note. Question format: What percent of the various activities time includes the use of traditional print? Scaled Responses: 1=0, 2=25, 3=50, 4=75, 5=100.

Similar patterns were found in the teacher interviews. One teacher described the use of traditional print during small group guided reading followed up by discussion and a writing activity:

> In our small groups we usually read one of the Houghton Mifflin readers or one of our new programs. Sometimes two. The Fountas and Pinnell. We do it the way we were trained. It is a choral read. Then all four will read it then we'll talk about it. Sometimes if I know they are struggling with endings or something I'll highlight that. Sometimes I have a little summary. They read and go back and summarize it. They like that. They have a summarizing notebook. If I forget to tell them they'll say, "Wait are we gonna write about it?" "Oh, yeah. Yeah." So I try to include a little bit of writing during that. (Interview, Sally, first-grade teacher)

Another teacher described how reading aloud a traditional print book often lead to a writing activity followed up by a class discussion:

> After the rotations we do a read aloud. The read aloud goes with a theme, a unit, a character trait, or a holiday. I might revisit the same story all week or have a variety of stories about that topic. We did penguins. Everyday we read a book about penguins then did a model writing of what we learned. Each day we talked about what we learned from each book. I stop after every page and we talk about it. Sometimes I ask questions and a few students will answer. Sometimes they discuss with their partner. (Interview, Candy, kindergarten teacher)

The most frequent traditional print activities identified in the survey as well as during individual interviews indicated that teachers believed that students become literate through meaning-focused activities including read aloud, small-group instruction, and writing in response to reading. Early literacy studies regarding effective teacher practices that promote early literacy development specifically around meaning-making instruction suggested the same strategies as those identified as the most frequent practices in the teacher survey: reading aloud (Adams, 1990; Anderson et al., 1985; Bus et al., 1995; Heath, 1983; Hoffman et al., 1993; Lonigan & Whitehurst, 1998; Teale & Sulzby, 1986); response to literature through writing (Taylor et al., 2000; Taylor et al., 2003); and small group literacy instruction (McCoach et al., 2006; Morrow & Smith, 1990; Taylor et al., 2000).

Digital Technology

Teachers were asked in the survey to differentiate the percentage of the time each of the literacy activities specifically included digital technology. The descriptive statistics showed that teachers used digital technology to teach reading through code-focused opportunities for their students during skill activities that primarily included phonemic awareness, vocabulary, and phonics (see Table 15). These most frequent activities that

included digital technology were considered code-focused activities because they required students to learn and practice foundational literacy skills.

Table 15. Teacher Frequency of Classroom Literacy Activities Using Digital Technology

Activities using digital technology	Minimum	Maximum	*M* (*n*=11)	*SD*
Phonemic Awareness	2	4	3.27	0.79
Phonics	2	4	3.09	0.94
Vocabulary	2	4	3.18	0.98
Fluency	1	4	2.50	0.97
Comprehension	2	4	2.73	0.78
Read aloud or shared reading	1	3	2.27	0.64
Small group guided reading	1	3	1.36	0.67
Independent reading	1	5	2.55	1.29
Group discussions connected to reading	1	3	2.20	0.63
Writing connected to reading	1	4	2.10	0.99

Note. Question format: What percent of the various activities time includes the use of digital technology? Scaled Responses: 1=0, 2=25, 3=50, 4=75, 5=100.

Teacher's descriptions of classroom practices during the interviews reflected the survey responses. All teachers mentioned the regular use of Lexia, which is a computer adaptive program that teaches TK-5 students grade-level foundational literacy skills. The teacher dashboard on Lexia provided data on student progress. One teacher described her use of Lexia as an opportunity to differentiate instruction and remediate when necessary:

> In the morning we have a half of hour of differentiated instruction and students at that point are using Lexia and then I'm pulling anybody who needs remediation. They are working at their level on the program and then the program gives indications on who needs what types of remediation. (Interview, Amy, second-grade teacher)

SmartyAnts (Achieve3000, 2017), another skills-based program that was being piloted at the time of this study by district TK-2 teachers, was mentioned by five out of nine of the

teachers who were interviewed. Amy went on to describe how the different programs were used for different purposes:

> I piloted SmartyAnts this year, so that is in there as well. So I have two programs going, which was kind of hard to manage at that point because I was doing Lexia in the morning and then I was trying to incorporate myON and SmartyAnts. SmartyAnts is more similar to Lexia than it is to myON in that it is Phonics Skills rather than fluent reading. (Interview, Amy, second-grade teacher)

A third digital program mentioned by five out of nine interviewed teachers was Raz-Kids (2017), a program purchased by the school. Raz-Kids is a digital library that allowed students to access decodable books. The focus of Raz-Kids was to provide decodable e-books for students to practice decoding and fluency. The following response to the teacher survey question, "How effective do you feel myON has been in supporting literacy activities in the classroom?" provided a glimpse of how one kindergarten teacher delineates Raz-Kids from myON, "The kids use Raz-Kids mostly for sight words, comprehension, and leveled reading. I feel myON is helpful for vocabulary for Kinder but too difficult for them to read the majority of the year," (Survey response, Tess, kindergarten teacher). All three of the kindergarten teachers indicated a preference for Raz-Kids to myON during the interviews, which supported the claim that the TK-2 teachers at Mighty Elementary found value in using digital technology to teach reading through code-focused literacy events. The kindergarten teachers' preference for the individual student use of Raz-Kids over myON also showed that the teachers had a desire to provide digital books that they thought were developmentally appropriate for their students. All three of the first-grade teachers indicated a preference for Raz-Kids early in the year. The first-grade teachers transitioned their students to myON in March, at which

time the teachers felt the students became more proficient in reading and technology navigation. One teacher summed it up when she said, “At the beginning of the year it was Raz-Kids, Raz-Kids, Raz-Kids. At the end of the year it's myON, myON, myON,” (Interview, Sally, first-grade teacher). The first-grade teachers’ preference for the individual student use of Raz-Kids over myON early in the year with a transition to myON later in the year, similarly to the kindergarten teachers, showed that the teachers had a desire to make sure that the technology platform and choice of digital books available to their students were developmentally appropriate. A timeline of myON usage across the year showed an increase in overall usage for March and April (see Figure 6).

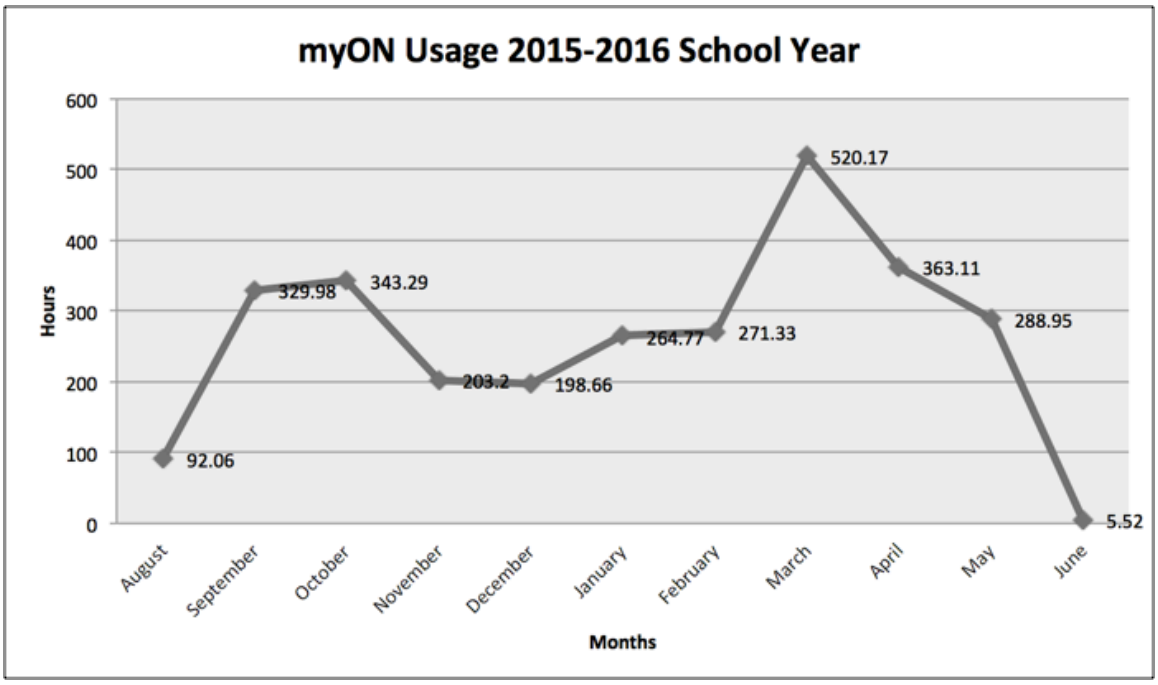


Figure 6. Total monthly myON usage for all TK-2 student participants throughout 2015-2016 school year.

The increase in all of the TK-2 student participants’ myON usage in March was partially a result of an increase in first-grade student usage. In addition, a few teachers

and parents mentioned that myON sponsored a district-wide reading contest in March, which also contributed to the increased usage during that month.

The Mighty Elementary TK-2 teacher literacy practices were in alignment with the Common Core standards (CDE, 2010), the English Language Arts/English Language Development Framework (CDE, 2014) and teacher literacy resources such as *Reading Instruction That Works* (Pressley & Allington, 2014) because all sources recommended that TK-2 teachers include code-focused activities within their balanced literacy program (Connor et al., 2004). The teachers at Mighty Elementary primarily utilized digital technology for the code-focused activities; however, the next section will show that myON was instead used for meaning-focused events.

myON

Teachers were asked in the survey to differentiate the percentage of the time each of the literacy activities specifically included the use of myON. Descriptive statistics showed that teachers used myON e-books to teach reading through meaning-focused opportunities for their students during cross-curricular content activities, independent reading, and read aloud/shared reading (see Table 16). These most frequent activities that included myON were considered meaning-focused activities because they required students to engage in complex text.

Table 16. Teacher Frequency of Classroom Literacy Activities Using myON

Activities using myON	*n*	Minimum	Maximum	*M*	*SD*
Read aloud or shared reading	11	1	3	2.27	0.64
Small group guided reading	11	1	3	1.36	0.67
Independent reading	11	1	5	2.55	1.29
Discussion connected to myON	10	1	3	2.20	0.63
Writing connected to myON	10	1	4	2.10	0.99
myON class projects	11	1	3	2.09	0.83
myON individual projects	11	1	5	2.00	1.27
myON in cross-curricular content areas	11	2	4	2.91	0.70

Note. Question format: What percent of the various activities time includes the use of myON? Scaled Responses: 1=0, 2=25, 3=50, 4=75, 5=100.

Consistent with the survey responses, teacher interview responses revealed a variety of ways that myON was integrated into classroom practices. All of the teachers, including the kindergarten teachers, recognized myON as a resource for books particularly for non-fiction titles. They all mentioned using myON to find books they could use for teaching whole group and several teachers also assigned the books for their students to read. One teacher described how the library was integrated into a cross-curricular unit on Rainforests:

> We just did Rainforests not too long ago. I started researching…That is a great resource; it is, especially if I can create a book set. I go to myON often to create book sets for the group, but they don't use it as much independently. I think I rely on it a lot more because it is a good digital resource for me because I don't have as many books. You have so much opportunity with digital resources as you're doing it right then. Like when I'll be talking about something…I start looking and create a book set right there because they have it right there. Right in the middle of the lesson. Let's check on myON right now, I'm gonna create a project so when you go on, go to Rainforest Animals. There are like six books in there so pick one. It happens a lot. (Interview, Fran, first-grade teacher)

Teachers used myON in a variety of student groupings. Fran went on to describe how her students used myON to read independently:

> There are times when I say open myON. You can read whatever you want in myON. You have 10-minutes and let's just have some myON time. Or they've earned it and they're done. I have kids who are completely done with first-grade Lexia. Go ahead, you don't need to keep moving forward with that if you don't want to. Wait until next year and read. I want you to read. This is first-grade. Read, read, read. (Interview, Fran, first-grade teacher)

Fran also described how students used myON in a small group or with a partner:

> There's groups of three that have the same interest in doing that. When I create book sets and projects, they can work on it with a partner. Sometimes I will say read this together, talk to each other about it, write whatever it is. (Interview, Fran, first-grade teacher)

Eight out of nine teachers who were interviewed explained how myON was used with their whole class to project a story, "When I find something I will project it and we will read it whole group," (Interview, Linda, first/second combination teacher). The TK teacher recalled this whole group practice as the only way she used myON:

> I have not used myON with the children individually where they log on and choose anything. That's something for me to work towards I think. I have used it with my whole class. Where I will pull up a book and it will read it. Especially if it has to do with my theme or the holiday. That's when I've used it. I would use it during one of those read aloud times, either right after recess or right after lunch. Or sometimes at the end of the day. I've used them at the end of the day when I have extra time and I know there's a book on myON that has to do with our theme or the season or something that is a fun book. (Interview, Jane, TK teacher)

All teachers reported similar use of the myON voice tool that tracked the words on the page while an actor read the text aloud. Teachers, such as Amy found the voice tool to be an important feature in the myON program:

> I think the feature of it reading to them is so important for a lot of them that wouldn't be especially like when you're researching stuff like that, they wouldn't be able to access the information if it wasn't being read to them. It helps with fluency in that aspect. (Interview, Amy, second-grade teacher)

All of the first and second-grade teachers mentioned the use of myON in one of the students' independent rotations during their Daily 5 time. Daily 5 is a classroom management structure that provides a rotation of differentiated literacy activities for students including read with teacher; word work; writing; read with partner; and read to self. Teachers mentioned read to self as the most common rotation that included myON as the reading resource.

The variety of ways that myON was included in the daily repertoires of literacy practices validated the claim that TK-2 teachers valued the use of the digital library myON through meaning-focused opportunities for their students. Though a few of the teachers stated a preference for print books, the fact that myON was used at all is evidence that they found some value in it. Similarly to the traditional print activities, the primary meaning-focused activity of reading aloud a book, specifically from myON, was aligned to best practices as identified by previous studies regarding early literacy practices that promote early literacy development specifically around meaning-making instruction (Adams, 1990; Anderson et al., 1985; Bus et al., 1995; Heath, 1983; Hoffman et al., 1993; Lonigan & Whitehurst, 1998; Teale & Sulzby, 1986).

I conducted ANOVA's to explore the impact of grade level taught and age range of teacher on the reporting of general classroom literacy activities, the use of traditional print, the use of digital technology, and the specific use of myON. Participants were divided into three groups according to the grade they taught (TK/K, 1st, 2nd), and four

groups according to their age range (Group 1: 30-39, Group 2: 40-49, Group 3: 50-59, Group 4: 60-69). I also conducted independent-samples t-tests to compare the reporting of general classroom literacy activities, the use of traditional print, the use of digital technology, and the specific use of myON between those teachers with a Bachelor's degree and those with a Master's degree. The mean and standard deviation for each group are shown below (see Table 17).

Table 17. Reported Practices by Teacher Group

		Reported Practices *M* (*SD*)			
Teacher Variable	*n*	General Literacy Practices	Use of Traditional Print	Use of Digital Print	Use of myON
TK/K	3	4.5 (.44)	4.13 (.14)	2.00 (.26)	1.67 (.14)
1st	5	4.6 (.35)	4.13 (.35)	2.47 (.72)	2.21 (.65)
2nd	3	4.63 (.31	3.77 (.31)	3.17 (.31)	2.71 (.52)
30-39 years old	1	4.30 (N/A)	3.44 (N/A)	3.50 (N/A)	3.13 (N/A)
40-49 years old	2	4.80 (.14)	4.09 (.06)	2.35 (.78)	2.31 (.80)
50-59 years old	7	4.61 (.35)	4.08 (.31)	2.44 (.69)	1.95 (.5))
60-69 years old	1	4.20 (N/A)	4.21 (N/A)	2.57 (N/A)	2.83 (N/A)
Bachelor's Degree	6	4.60 (.40)	4.03 (.18)	2.70 (.55)	2.26 (.57)
Master's Degree	5	4.56 (.26)	4.02 (.45)	2.34 (.81)	2.12 (.74)

There was not a statistically significant difference at the $p < .05$ level in general activities for the grade levels taught: F (2, 8) = .11, p = .90. There was not a statistically significant difference at the $p < .05$ level in the use of traditional print for the grade levels taught: F (2, 8) = 1.55, p = .27. There was not a statistically significant difference at the $p < .05$ level in the use of digital technology for the grade levels taught: F (2, 8) = 3.42, p = .09. There was not a statistically significant difference at the $p < .05$ level in the use of myON for the grade levels taught: F (2, 8) = 2.88, p = .11.

There was not a statistically significant difference at the $p < .05$ level in general activities for the teacher age range: F (1,7) = .99, p = .45. There was not a statistically significant difference at the $p < .05$ level in the use of traditional print for the teacher age range: F (1,7) = 1.62, p = .27. There was not a statistically significant difference at the $p < .05$ level in the use of digital technology for the teacher age range: F (1,7) = .72, p = .57. There was not a statistically significant difference at the $p < .05$ level in the use of myON for the teacher age range: F (1,7) = 1.87, p = .22.

There was no significant difference in classroom literacy practices for teachers with a Bachelor's degree and those with a Master's degree (t (9) = -.19, p = .85, two-tailed). There was no significant difference in the use of traditional print for teachers with a Bachelor's degree and those with a Master's degree (t (5) = -.05, p = .96, two-tailed). There was no significant difference in classroom literacy practices for teachers with a Bachelor's degree and those with a Master's degree (t (9) = -.86, p = .41, two-tailed). There was no significant difference in myON usage for teachers with a Bachelor's degree and those with a Master's degree (t (9) = -.35, p = .73, two-tailed).

I conducted correlational analyses between the number of years of teaching and the reporting of general classroom literacy activities, the use of traditional print, the use of digital technology, and the specific use of myON. There was not a statistically significant relationship between years of teaching and the reporting of general classroom literacy activities, r = .21, n = 11, p = .54. There was not a statistically significant relationship between years of teaching and the reporting of the use of traditional print, r = .44, n = 11, p = .18. There was not a statistically significant relationship between years of teaching and the reporting of the use of digital technology, r = -.19, n = 11, p = .58.

There was not a statistically significant relationship between years of teaching and the reporting of the use of myON, $r = -.36$, $n = 11$, $p = .28$.

In this section, I used quantitative and qualitative evidence to describe the ways teachers and students were integrating a digital library into their literacy and language practices in Mighty Elementary classrooms. My analysis of survey and interview data revealed a common pattern that the TK-2 teachers at Mighty Elementary provided a balanced literacy program in which they integrated both traditional print and digital resources, including myON, into both code-focused and meaning-focused events for their students. Though no statistically significant variations in teacher practice were found in the quantitative analysis, the non-significant quantitative findings could be a result of having a small sample of only 11 teachers for each analysis.

Summary: School Infrastructure and Classroom Practices

My group level analysis of the survey results and interview transcripts from teachers and support staff revealed two primary findings. First, Mighty Elementary had a strong digital infrastructure in the school context that supported a blended learning environment conducive to integrating the digital library myON into the daily classroom practices. Second, this strong infrastructure provided a context whereby TK-2 teachers at Mighty Elementary integrated complex text from myON into their meaning-focused events. The next chapter will explore how traditional and digital homework were used to mediate the interactions between the school and home contexts along with a group level description of the home literacy practices.

Chapter 5: Group Characteristics of Homework and Home Practices

In Chapter Four, I described the characteristics common to the group of school support staff and TK-2 teachers in regards to the digital infrastructure of the school, the services provided by the support staff, and the daily literacy practices within the classroom. I found that a strong digital infrastructure in the school context provided a setting in which the TK-2 teachers at Mighty Elementary integrated complex text from myON into their meaning-focused events. In this chapter, I will describe the characteristics common to the group in regards to homework and home literacy practices as revealed through teacher and parent survey and interview data. The description of the characteristics common to the group revealed that homework was the primary mediator between school and home, which resulted in home literacy practices that included both traditional and digital activities related to the homework sent from school.

Homework as a Mediator Between Home and School

In this section I answer the following sub-question: How is the use of a digital library in both the school and home working as a mediating influence on the interactions between the teachers, students, and families? I found that the TK-2 teachers at Mighty Elementary used traditional and digital reading homework, to include myON and Raz-Kids, as a mediator between school and home to communicate ways that parents could support their child in literacy development. The teachers believed that parent participation was an important component in developing student literacy. In order to gain a better understanding of teachers' beliefs and values about the role of parents in student literacy development, teachers were asked on the survey to differentiate the frequency in which they assigned traditional reading homework and myON reading homework, as well

as how frequently they communicated with parents about how to support their child in traditional reading and in the use of myON. Descriptive statistics indicated that teachers sent home both traditional and digital reading homework at least a few times a week (see Table 18). The data also indicated that teachers communicated with parents about ways they could support their child's literacy development a few times a month and a few times a year in regards to myON communication (see Table 18).

Table 18. Teacher Frequency of Assigning Reading Homework and Parent Communication

Category	*n*	Minimum	Maximum	*M*	*SD*
Reading homework					
Using traditional print books	10	4	5	4.90	0.32
Using myON	11	1	5	4.18	1.60
Parent communication					
Home literacy support	11	2	5	3.00	1.18
Use of myON at home	11	1	5	2.64	1.29

Note. Question format: How often do you assign reading homework using traditional print/myON? How often do you communicate with parents about literacy/myON? Likert Scale Responses: 1=never, 2=few times a year, 3=few times a month, 4= few times a week, 5= everyday.

The statistics showed that teachers assigned traditional homework slightly more often than myON; however, the likert scale means were very close with both indicating an assignment at least a few times a week. The statistics also showed that teachers communicated slightly more often with parents about how to support their child in traditional reading than they did regarding the use of myON. When asked during the interview what role parents played in their child's literacy development, all teachers responded that they thought parents played a significant role. One teacher example exemplified the typical sentiment expressed by all teachers:

> Oh my gosh, I think they [parents] play probably the most important role there is. I think that when they read to their children, preschool age, it makes all the difference in the world. I wish there was some way we could get that information out to them. Just that story time before bed when you're 3, 4, and 5. I think it's as important as anything we do in school. I really do. (Interview, Sally, first-grade teacher)

All of the teachers and parents also discussed the homework experience as a way to continue involving the parents in their child's literacy development.

Reading Homework

All teachers included reading as part, if not all, of their homework. The reading homework format and specific requirements varied by teacher or grade level, such as requiring a specific amount of time reading, completing a reading log, or writing/drawing about what they read. All teachers allowed students to select traditional books, myON e-books, or Raz-Kids e-books for the reading requirement. The teachers used the assignment of reading homework as an opportunity for the parents to support their child's literacy development. The following quote from a teacher illustrated how she used reading homework with her TK students and their families:

> One of the things we ask them [parents] to do was to read a book with their child every night and talk about it. That is one of the things I would talk about at the beginning of the year. How to read a book with your child. What types of questions to ask. What types of things to do. I didn't really have them keep a log or anything . . . Sometimes I would ask the kids…during our morning circle, what book have you read at your house lately, just for them and see if they remember. Sometimes they remember and sometimes they don't. I would usually have that Home School Connection piece. If that was about a story or a comprehension skill or a comprehension strategy or something with the story they would have to fill that out together. They would turn those in with their homework packet if that was part of the packet. (Interview, Jane, TK teacher)

A kindergarten teacher emphasized the importance of homework as an opportunity to support reading, "For me homework is an opportunity for the parent to support their child.

I haven't done worksheets. Reading is the main component. Students can access the digital programs. If students don't have a device or Internet, then there isn't much I can do. Some of them tell me that they go to the library to access the programs," (Interview, Candy, kindergarten teacher). Another kindergarten teacher mentioned how she encouraged the use of the digital resource, Raz-Kids as part of the reading homework:

> They were supposed to read. I put that in my newsletters regularly. If you are busy and tired please just have your child do Raz-Kids. Those are books at your child's level and they have the sight words embedded in them. This will help your child grow because they're reading just right books. (Interview, Tess, kindergarten teacher)

Layla was in Tess' class, below her mother expanded on the description of the reading homework options mentioned by Tess:

> A couple things. You had options. You were either able to, suggestions were Raz-Kids online, use Lexia, read a book that you already have, or, yes, they were producing little books in class, cut out, color in. She's got a whole stack of them, so she can read them through the summer, or, as I said, a book that you had at home. (Interview, Layla's mother, kindergarten parent)

First and second-grade teachers and parents described the homework as a sheet of paper that had a grid of options that parents needed to sign-off on each week. "They have a little square table and it says if he read Raz-Kids the parent puts their initials there, if it's myON the parent puts their initials there," (Interview, Ned's mother, second-grade student). "They just send a single piece of paper with the name of the applications," (Interview, Andy's father, second-grade student). "One of which is myON for 20-minutes. You can choose," (Interview, Mary's mother, first-grade student). One teacher described the homework, "We change it every week. This is our homework: math, math, myON, SmartyAnts, every day, Lexia. It says to pick seven squares by the end of the week. It goes home Friday and comes back the next Friday. Parent signs on square,"

(Interview, Linda, first/second combination teacher). Linda shared a digital copy of the homework as an example (see Figure 7):

Weekly Homework Menu

Name: _____ Date :March 5, 2016

Choose seven of these assignments to complete throughout the week (in addition to the writing prompts). You can use the back of this page or your own paper. You will need to read for 20-minutes every night. Please have your parent sign the box when you have completed the assignment. Return this paper to class in your homework folder on **Friday.**

Math **Go to: Sumdog.com** **20 minutes** username - password - school code - Parent Signature _____	**Math** **St Math** **20 minutes** picture password Parent Signature _____	**MYON: Do extra MYON this week! We have a contest in the month of March!** username - password - Parent Signature _____
SMARTY ANTS **20 minutes** username: password: playsmartyants.com parent signature _____	**Every Day** Read for 20 minutes using any digital library resource or paper book.  Parent Signature _____	**Go to : Lexiacore5.com** **20 minutes** username - password - Parent Signature _____
Digital Library - Reading **20 minutes** **Myon** username - password - Parent Signature _____	**discoveryeducation.com** **username:** **password:** **20 minutes** Parent Signature _____	**RAZ-KIDS** **20 minutes** **teacher username:** **student password:** Parent Signature _____

Figure 7. First and second-grade weekly homework sample. Usernames and passwords have been removed from the screenshot.

The TK-2 teachers' practices of sending reading homework and communicating strategies with parents about how they could support their child's literacy development have been supported by numerous parent involvement and home literacy studies showing positive associations between literacy development and support in the home context (Bennett et al., 2002; de Jong & Leseman, 2001; Fantuzzo et al., 2004; Jeynes, 2003; McWayne et al., 2004). Research studies regarding the practice of parents reading aloud to their children have also shown positive associations with student literacy development

(Bus et al., 1995; Deckner et al., 2006; Huebner, 2010; Lonigan & Whitehurst, 1998; Manz et al., 2010; Mol et al., 2008; Raikes et al., 2006; Sonnenschein & Munsterman, 2002).

ASES Homework Support

The after school teacher, Sara, described how the ASES program offered student support in reading homework by providing time everyday for students to read and complete their homework:

> The requirement is first they come and do their homework that's the first priority. Then they have to read for 20-minutes. We require they read a book instead of myON. And then the rest of their time they can focus on ST Math, AR, Lexia, or any of the programs, myON, that's technology based from their classrooms. (Interview, Sara, after school ASES teacher)

Since the parents had to pick their child up each evening from the after school program, the ASES teacher used that as an opportunity to communicate student progress with parents, "Often times we're seeing that we send home notes. We have homework slips. I write notes on the sign-in and out sheet. The parents, the ones that do read with their children do better. The ones that don't even go into their backpacks to see what's in there, those kids struggle," (Interview, Sara, after school teacher). Since research studies have shown an association between children living in poverty and low early literacy development (Blair et al., 2010; Burchinal & Forestieri, 2010), the ASES program was Mighty Elementary's attempt to decrease the literacy gap between low SES students and students who are not low SES. In addition to providing additional literacy support, the ASES teachers used the daily interaction with the parents as an opportunity to build a bridge between school and home (August & Shanahan, 2008).

I analyzed teacher survey data and interview transcripts from teacher, support staff, and parent interviews to determine how the use of a digital library in both the school and home worked as a mediating influence on the interactions between the teachers, students, and families. My analysis revealed that the TK-2 teachers at Mighty Elementary used traditional and digital reading homework, to include both myON and Raz-Kids, as a mediator between school and home to communicate ways that parents could support their child in literacy development. In general, the teachers' primary goal for homework was that their students were reading with the support of their families. The teachers were less concerned with the medium being traditional print or digital technology; however, the fact that print books and digital programs including Raz-Kids and myON were mentioned showed that the teachers did find value in both traditional and digital mediums for homework.

Home Literacy Practices

General Literacy Practices

My analysis of parent survey and interview responses will be used to answer the sub-question that asks how students and family members are integrating a digital library into their literacy and language practices in their homes. I found that the home literacy practices of the TK-2 students at Mighty Elementary included both traditional and digital activities and were primarily related to the homework sent home from school. The students' parents participated in traditional activities and to a lesser degree the use of technology to support their child's literacy development. In order to gain a better understanding of parents' beliefs and values about literacy, parents were surveyed about the general family literacy practices in the home to include questions about reading,

myON, and the general use of technology. The descriptive statistics of the responses provided by parents for each of the general literacy practices questions indicated that parents engaged their children in a variety of literacy activities as part of their repertoires of practice (see Table 19).

Table 19. Parent Frequency of General Home Literacy Activities for all TK-2 Student Participants

General literacy activities	*n*	Minimum	Maximum	*M*	*SD*
Parent reads	207	1	5	4.17	0.99
Child reads	206	1	5	4.31	0.86
Child is read to	206	1	5	3.95	0.89
Child reads to someone	207	1	5	3.63	1.06
Child reads from myON	198	1	5	3.50	1.18
Bring books during everyday activities	207	1	5	3.33	1.13
Follow a regular routine for reading books	205	1	5	3.77	1.07
Child visits the public library or bookmobile	199	1	5	2.54	0.99
Child uses digital device to read	206	1	5	3.78	1.06

Note. Question format: How often does your family engage in the various activities?
Likert Scale Responses: 1=never, 2=few times a year, 3=few times a month, 4= 1-4 times a week, 5= 5-7 times a week.

My analysis of parent interview transcripts revealed patterns similar to those shown in the survey results with additional activities mentioned. As I coded the general home literacy practices, seven categories emerged. The top three, mentioned by all parents, included reading, engagement in conversations, and supporting decoding. Layla's mother reported multiple ways of reading in the home:

> We usually read books together, at least at night, at least six nights of the week, and more and more she's doing the reading, if her brother will let her. All those sorts of things. She wants to be doing the reading, and she'll be doing the reading and I'll leave her to read a book, but we'll read a book together. She reads my texts over my shoulder now, which is really annoying. She's constantly reading signs around her, but as far as picking up a book and reading it, either on her own, a few times a week, or together as a family, six nights, seven nights a week. (Interview, Layla's mother, kindergarten student)

Franco's mother mentioned common conversations she had with her son regarding current events seen on the television:

> Sunday we went out to eat for Father's Day. We're eating and he's like, "Oh mom, look. It's Donald Trump." I was like, "What?" Then I looked and he was like, "Yeah, that's Donald Trump. Mama watches that every day. We watch Donald Trump. You know he's a bad guy." Yeah, and it's just even what my mom says about Donald Trump too and he picks that up too. "Yeah mama said he's bad. He's a bad guy." (Interview, Franco's mother, TK student)

Carissa's mother described a couple of ways she helped her daughter when she was stuck on a word:

> If she doesn't know what it is, like if she couldn't pronounce "what," she didn't understand the "Wh." I'd say, "Read it again. You know what that is." And she'd be like, "Ah." Or if it sounded like it was a really long hard word, she really couldn't pronounce, then yeah I would help her. (Interview, Carissa's mother, first-grade student)

Ned's mother had a unique strategy for helping her son with more challenging words found in the complex non-fiction text he liked to read:

> He loves sports and animals. Most of the stuff were related to either sports or animals. The sports books are mostly biographies or the history of the sport. He is not really reading those. We've tried, but he gets frustrated, so I say just look at the pictures and point out the words you know really quick and then the ones you don't like circle in another color. Those words I put up on the refrigerator. There are some words like psychology, he's like, "I hate that word. I can never say it." I say, "Every time you see it, you can say it." Another word is concussion. All those words are in the sports books. (Interview, Ned's mother, second-grade student)

Several studies have looked at Latino parental beliefs around how children become literate and found that Latino parents typically believed children became literate through code-focused instruction rather than meaning-focused, which resulted in the parents being more likely to participate in family literacy activities when the activities included code-focused strategies (Goldenberg, 2010; Reese & Gallimore, 2000). Interestingly, of the examples above, Ned's mother, who self-identified as Latina, did mention how she helped her son with decoding large words, but it was within the context of meaning-focused reading rather than in isolation.

When discussing the activity of reading as a routine practice, seven out of nine parents referenced finding books to read with their child either at the library or bookstore, and the establishment of rules and routines for literacy activities. During the interview, Layla's mother pointed to a section of the room and said, "You can see there's books there on the floor. There are books in that bag that she just got at the library today. There's books on the shelf over there. There's books on the shelf in her room," (Interview, Layla's mother, kindergarten student). Ariel's mother pointed to a whiteboard in the room to describe how the family has established rules and routines that included reading. The whiteboard was divided into the sequence of a week with three children's names on

it, representing Ariel and her two brothers. Ariel's mother explained the routine and rules:

> Now it's like we have our board, which we keep track of, but not a lot of electronics until they do all of their chores. They have to knock out everything before they can even access the TV. They are required to do, even through the summertime, 30-minutes of, is it 30-minutes of their myON, computer sites through school, and then they have to actually physically read a book for half an hour, then they're out and allowed access to electronics. (Interview, Ariel's mother, second-grade student)

Oral storytelling was a general literacy activity mentioned by six out of nine parents. Franco's mother described the oral storytelling as a retell of a classic story:

> Yeah, make believe stories yeah we do that sometimes when we go to sleep. We tell make believe stories. Yeah. My husband always does, "Once upon a time," then he talks about us but he says it like, "There were three little piggies," tries to mix it all with the stories that we already know but just put us in it. (Interview, Franco's mother, TK student)

Mary's mother was clear that the oral storytelling in their family was autobiographical rather than following the classic sequence of a fiction story, "I think we would tell stories about . . . 'When you were a baby, this happened.' Memories, they're more single shot memories, rather than a beginning, middle, and an end," (Interview, Mary's mother, first-grade student).

As an extension of reading, five out of nine parents noted activities around a book such as drawing or acting out the events of a story. Mary's mother illustrated a few different ways her daughter would extend a storybook experience into an activity:

> She goes sometimes to the Magic Tree House website, so that's fun . . . We used to do coloring pages from Jan Brett, because all those books are so beautiful. She has some of those. You know what she used to do when she was little, she would start acting out the books. She wanted very much to play that Jack and Annie or whatever it was. She would act those out. (Interview, Mary's mother, first-grade student)

The routine literacy practices revealed through interviews that were common to this parent group included reading, conversations, support for decoding, finding books, the establishment of rules and routines, oral storytelling, and extension activities related to a book. My description of the home literacy practices supported the claim that the parents in this group engaged their children in a variety of literacy activities as evidenced by their repertoires of practice. One of the first naturalistic studies in which the researcher, (Teale, 1986), observed the everyday routines of children in the contexts of their homes also revealed a variety of literacy experiences that occurred in the homes with sociocultural factors influencing the practices.

In addition to my analysis of similar practices within the group, statistical analyses were conducted to explore possible differences. I conducted independent-samples t-tests for the reporting of general home literacy activities between males and females, between those socioeconomically disadvantaged with those who were not, and between ELL and English only students. There were no significant differences in reporting of general home literacy activities for males (M = 4.57, SD = .32) and females (M = 4.56, SD = .32; t (181) = -.16. p = .87, two-tailed). The results were statistically significant between those socioeconomically disadvantaged with those who were not, t (166.84) = -3.90, p = .000, with a moderate effect size (d = .54), 95% CI [-4.59, -1.50]. My examination of the group means indicated that students who were not socioeconomically disadvantaged engaged in significantly more home literacy practices (M = 34.60; SD = 4.49) than those who were socioeconomically disadvantaged (M = 31.56; SD = 6.50). The results were also statistically significant for the reporting of general home literacy activities between those students who were English learners with

those who were not, t (77.09) = 4.444, p = .000, with a moderate effect size (d = .74), 95% CI [-2.60 to 6.82]. My examination of the group means indicated that English only students engaged in significantly more home literacy practices (M = 33.79; SD = 4.94) than those who were English learners (M = 29.09; SD = 7.46). Though the reasons for these findings are not clear, it is possible that the same families who are low SES are also the families who speak a language other than English. Oftentimes, low SES parents are working long hours to provide for their family and are unable to engage in as many literacy activities with their children.

Technology in the Home

Parents were asked in the survey to respond to likert scale questions about the students' use of technology in the home. The descriptive statistics showed that parents used technology with their children, but to a lesser degree than they engaged in traditional reading activities. The responses related to technology showed that families engaged in technology activities a little more than a few times a month (see Table 20), whereas general reading occurred one to four times a week (see Table 19).

Table 20. Parent Frequency of Technology Activities in the Home

Technology practices	*n*	Minimum	Maximum	*M*	*SD*
Read on myON	198	1	5	3.50	1.18
Read on digital device	206	1	5	3.78	1.06
Play games on digital device	206	1	5	3.78	1.03

Note. Question format: How often does your child engage in the various activities?
Likert Scale Responses: 1=never, 2=few times a year, 3=few times a month, 4= 1-4 times a week, 5= 5-7 times a week.

Interview responses supported this pattern. All interviewed parents mentioned that their child had engaged with digital programs at home to include school programs and/or games. Parents most frequently mentioned ST Math, Lexia, Raz-Kids, myON, and Google apps. Some parents spoke in general terms such as, “My boys they're into technology, so they're always on the apps,” (Interview, Ned’s mother, second-grade student). Other parents were more specific about which programs their child accessed, “I think she switches it up. One day she may be in Lexia and then she might do myON and the next day she might do Cool Math,” (Interview, Ariel’s father, second-grade student).

Throughout the interviews eight out of nine parents expressed a positive perception of myON and seven out of nine expressed that their child had a positive perception of myON. Layla’s mother referenced myON as a supplement to what she is already providing as a parent:

> I appreciate that these programs are at least trying to do that, engage the kids, make sure they're reading, make sure they're understanding and hearing. I think it's a very good supplement to what we're doing … I guess I would just say that I think we've appreciated here having those digital libraries available to her. She has enjoyed going on using them. Just because I don't use it that way doesn't mean that she doesn't enjoy it. I do like that the programs make it fun for the kids, and so it makes them interested in coming back, and maybe don't realize that they're eating their vegetables, actually doing some work. (Interview, Layla’s mother, kindergarten student)

Mary’s mother mentioned the benefit of having a choice of books:

> I like it on the one hand, because anything that increases choice and availability of books has got to be good. If she wants to go on there and she's going to be reading and she wouldn't have read that dragon book for example, because I didn't bring it home yet. More choice is always good… Of the homework choices, that's what she wants to do. She'll usually choose myON over Raz-Kids and some of the others. (Interview, Mary’s mother, first-grade student)

Ned's mother mentioned the benefits of using the audio feature on myON when a parent is unavailable as well as the variety of books found within the library:

> I think it is a great resource just because it has the audio option, so if the parents are busy or sometimes there is just one parent in the home, if they are not able to help them at that moment, it facilitates it for the child. It keeps track … There is so much variety. I was surprised to see how many different books they had. I would think after reading every single day like after a month or something they would have to reread the same book. There was a lot of different options. I like that it is at their level. It is kind of like going to the public library. They get to choose. I really like that… With myON, I know he likes myON because you can press for it to read the words. (Interview, Ned's mother, second-grade student)

Finally, Andy's father referenced his appreciation of the fact that the computer was able to provide support in English that he was unable to provide for his son because he only spoke Spanish, "I say it's good. For someone like me who doesn't know English, then it's good that the computer can help him," (Interview, Andy's father, second-grade student, translated from Spanish).

These positive statements about myON from parents validated the claim that parents valued the use of technology for their children; however, every parent quoted above referenced myON as an addition to what they already provided for their child through traditional support such as reading traditional books and having conversations. In the next section, I explore the pattern that emerged from the parent interviews regarding parents' acceptance of technology, but a desire to maintain routines that included traditional books.

A theme that emerged throughout the parent interviews was a paradox between the acknowledgments that children needed to become computer literate while at the same time stating a preference for their child to continue the practice of reading traditional

books. This paradox was seen when parents discussed the physiological differences between e-books and print books, and the concern about the physical effects of too much screen time.

During the parent interviews, eight out of nine parents made statements that showed they valued both digital and traditional reading resources, but seemed to be negotiating which resource they preferred. The excerpts from the interview with Layla's mother showed a typical example of all the interviews where the parent was negotiating the differences between digital and traditional text:

> If she's going to read something, I prefer her to read a book. I prefer her to pick something up… I think with a prescribed amount of time, in my opinion, unless they're just avid, I personally like to see screen time limited. I understand you need to be able to be fluent in that kind of technology and being able to read in that format, but my personal feeling is that I grow people who have the ability to read across different formats and appreciate all of them, and books are important to that …I think it includes my children who have personal connection to what they're holding and reading. I think it's a physiological thing… I personally feel that there is, yes, a physiological component to holding what you're reading and touching what it is that you're reading, and the ink or seeing the pictures, and there's something about the quality of the print, the font, and the illustration that is different from seeing it on a screen, which is just pixels. Digital technology is, by definition, really angular and cuts off, doesn't it, versus analog as it were. I don't mean to say that I don't value those programs as well as a supplement to what I'm doing. (Interview, Layla's mother, kindergarten student)

As indicated above, Layla's mother provided an example of a parent who preferred a traditional book, but valued digital as a supplement. Below, Ava's mother also recognized the physiological differences between digital and traditional books, but then thought that digital is the direction our society is moving toward:

> There is a difference between them, being able to snuggle up in bed with a book and flip the pages and fall asleep to it versus having a laptop where you have to sit up and read it. There's a difference and kids books with some pictures. If you can see it, there's a difference in that. Lexia or myON is where we're going. I think back a few years ago, we were able to navigate without technology and now it's in our hand all the time. Our phones are at our hips, attached to us all the time. (Interview, Ava's mother, second-grade student)

Ava's father had a similar conclusion regarding the value of a digital library when he stated, "This day and age everything's electronic or web based. I haven't purchased a book in years. Even at work, I work in contracts, and everything is all digital now. I think it's perfect for children," (Interview, Ava's father, second-grade student). Four out of nine parents explicitly stated a concern regarding too much screen time. Carissa's mother not only had a concern about screens affecting eyes, but she also mentioned the issue of radiation:

> It's not that it's not helping . . . Maybe it is helping the student for future because that's the way that education is going . . . I feel like I know probably in ten years, in order for her to get a job, if she can't even use the computer, I get that's going to be troublesome for her…Digital book is harder on your eyes. It's like, I don't want to have to wear glasses in the next ten years. It's physically bad for you. My husband is a radiation freak. He doesn't want her in front of it. The other thing is it's just the excessive use I can't monitor. (Interview, Carissa's mother, first-grade student)

Elliot's mother was very succinct then she stated, "I say it affects their eyes," (Interview, Elliot's mother, kindergarten student, translated from Spanish). One mother referenced her concern about screen time, the physiological differences between digital and traditional print, and her own reading of digital books as she negotiated what was best for her daughter:

> She tends to binge out on myON. I have to sometimes tell her, "That's enough screen time." Because she just will keep going…She'll just totally binge out on that. It's funny, I say that about myON, but I would never say she's binging out on a book on the sofa. I would just never conceive of it like that. I wouldn't mind if she read forever . . . It's her passivity of all her senses being sucked into that computer that's different than when you're reading a book, I feel like. Yeah, she will ask to use the computer … I don't want to be against it. I hate sounding like that, like something is lost if you're not turning the pages . . . I'm not against technology just to be against technology, but there is something lost … It's this absorbing activity, if only because she's sitting at the table . . . If only because of the comfort level. When you're sitting at a desk, it's a different feeling, you know? She's usually at the table with myON. (Interview, Mary's mother, first-grade student)

The qualitative examples from the parent interviews regarding myON as a supplement to traditional print resources and the physiological differences between digital and print books validated the claim that parents believed in the value of technology, but to a lesser degree than they valued traditional reading activities. On the one hand, the parents' appreciation of technology was in alignment with the desire to teach 21st century skills to their children (Voogt, & Roblin, 2010). On the other hand, the Education of Young Children joint position statement (NAEYC, 2012) regarding the interactive and thoughtful use of technology has validated the parental concerns about excessive and passive use of technology.

Family Participants

In addition to asking about the frequency of general family literacy and digital activities, families were asked to identify who in the home participated in the various activities with their child through four open-ended responses. The responses were tallied and categorized into mother, father, grandparent, sibling, aunt/uncle, and other. The most frequent participant identified as participating in family literacy activities was the child's

mother, the second most frequent participant was the child's father, and the third most frequent was a sibling. The least frequent participant identified was Aunt/Uncle (see Table 21).

Table 21. Family Members who Participated in Home Literacy Activities with the Child

Family member	*N*	Minimum	Maximum	*M*	*SD*
Mother	208	0	4	2.88	1.10
Father	208	0	4	1.42	1.42
Sibling	208	0	4	0.94	0.93
Grandparent	208	0	4	0.48	0.79
Other	208	0	4	0.31	0.68
Aunt/Uncle	208	0	4	0.16	0.48

Note. Question format example: Who does your child read to? List all that apply.

The parents who participated in the interviews represented similar categories. Of the nine interviews, six were conducted with only the child's mother. One interview was conducted with the child's father, while the remaining two were conducted with both the mother and father. Two of the three parents who were interviewed in Spanish also had siblings present. Even though a research assistant conducted the interviews with the parent in Spanish, the siblings often interjected their thoughts in English during the interview showing their support and participation in the younger sibling's education. The Spanish-speaking parent always initiated the sibling's participation in the interview dialogue. The following excerpt from one interview transcript is an example of how a sibling was encouraged by the parent to help answer questions the parent wasn't sure about:

> Interviewer (translated from Spanish)-How often does your child read myON?
>
> Parent (translated from Spanish)-I don't even know. Three times a week. Something like that. To be exact, I'm not too sure.
>
> Interviewer (translated)-What does your child read on myON?
>
> Parent (translated from Spanish)- I don't know.
>
> Interviewer (translated from Spanish)-How often does your child read myON alone?
>
> Parent (translated from Spanish)- Mostly I put him with her [points at ten-year-old sister]. He is almost never alone on it.
>
> Interviewer (translated from Spanish)-How often does your child read myON with sister?
> Note: Mother asked daughter in Spanish, "So how often do you read with him?"
>
> Parent (translated from Spanish)-I would say about three times a week. Sometimes she'll tell me that she's got homework and then I'll say okay then no.
>
> Interviewer (translated from Spanish)-When you read myON with your child what strategies do you use to help him learn to read independently?
>
> Sister (answered in English): I make him read to me. So then he can learn. When he gets stuck I tell him just the first letter and then he figures it out by himself. We turn the sound off.
> (Interview, mother and ten-year-old sister of Elliot, kindergarten student, translated from Spanish)

During the three parent interviews conducted in Spanish, the parents indicated that language was a barrier between the school and home. Elliot's mother stated, "I tell him to read to me because I don't know how to read in English. I tell him, read to me, so that I can learn to read," (Interview, Elliot's mother, kindergarten student, translated from Spanish). As shown in the transcript above, Elliot's mother also utilized the support of Elliot's ten-year-old sister when English was a barrier. Similarly to Elliot's mother,

Gabby's father used the support of Gabby's adult sister. This was seen throughout the interview as well when the father stated, "… most of the time it is her [pointing to Gabby's older adult sister] that helps me out with the homework for her," (Interview, Gabby's father, first-grade student, translated from Spanish). Andy's father, also a Spanish-speaking parent, explained that his son was usually able to do his second grade homework independently. Since Andy did not have an older sibling who could read English, his father used technology to translate the homework from English into Spanish so that he could help him. Andy's father explained the process, "He tells me when he doesn't know. Since we don't know English … I'll go on the tablet and I will translate it … then I'll help him (Interview, Andy's father, second-grade student, translated from Spanish). All three of the Spanish-speaking parents developed language routines that provided support for their child's literacy development.

The Spanish-speaking families in this study described family literacy routines and practices that typically related to the homework their children brought home. Since the three parents interviewed did not speak or read English, they engaged in language routines such as having an older sibling translate or help the younger sibling with English activities. The parents also relied on the technology programs to support their child in English. One parent even used technology to translate questions about the homework from English to Spanish, so that he could support his son with his English homework through the family's primary language. Overall, the participation of parents and siblings in the routine literacy practices of the home validated the claim that parents engaged their children in a variety of literacy activities as part of their repertoires of practice. In the case of Spanish-speaking parents, their repertoires were expanded to include siblings and

the strategic use of technology in the home. The findings from the parent surveys and interviews confirmed a meta-analysis that found that parents played a major role in supporting their children's literacy development particularly when the students were from a minority group (Jeynes, 2003).

Summary: Homework and Home Practices

My group level analysis of the surveys and interview transcripts revealed that TK-2 teachers at Mighty Elementary used traditional and digital reading homework, to include myON and Raz-Kids, as a mediator between school and home to communicate ways that parents could support their child in literacy development. I presented quantitative and qualitative evidence to support the claim that the TK-2 students' parents engaged in traditional activities and to a lesser degree the use of technology to support their child's literacy development. Overall, reading homework was the primary mediator between school and home, which resulted in home literacy practices that included both traditional and digital activities related to the homework. The next chapter will explore the significant differences within and between the participant groups in regards to myON usage in the school and home context, with vignettes representing the variances.

Chapter 6: Student Variation in myON Usage

In Chapters Four and Five, I described the characteristics common to the group of school support staff and TK-2 teachers and parents in regards to the daily literacy practices nested within the school and home contexts as revealed through survey and interview data. I found that a strong digital infrastructure in the school resulted in TK-2 teachers at Mighty Elementary primarily integrating text from myON into their meaning-focused activities as part of their balanced literacy program. In the home context, I found that the reading homework was the primary mediator between school and home, which resulted in home literacy practices that included both traditional and digital activities related to the homework. In this chapter, I will continue to answer the overarching question: In what ways is the use of a digital library integrated in the literacy and language repertoires of practice in the sociocultural contexts of home and school, through an exploration of meaningful differences that exist between and within participant groups. I found that there were variations in myON usage with the classroom teacher having the largest effect on the number of hours spent reading from myON, with the higher the grade level of the student, the more likely students were to integrate a digital library into their routine literacy practices in both the school and home contexts. I determined the findings through an analysis of individual student myON usage, the development of a Hierarchical Linear Model (HLM) with myON usage as the outcome, and the teacher, grade level, number of digital devices in the home, and socioeconomic status as the predictor variables. Finally, I present an analysis of qualitative survey and interview data through student vignettes representative of the myON usage variation.

Student myON Usage

This section provides a quantitative analysis of the individual student myON usage as measured in hours of use across the school year. My analysis indicated that a variance across student usage in both the school and home context was in part explained by a nested structure in which the classroom teacher had the largest effect followed by grade. The higher the grade level of the student, the more likely students were to integrate a digital library into their routine literacy practices in both the school and home context. In the final section of this chapter, I provide evidence that the variance in student myON usage was dependent on the teacher's use of technology for teaching and their beliefs about text selection for young children. In order to determine to what degree and in what contexts students were using myON, I analyzed and reported myON hours of reading by grade level, by school and home context, and by classroom and after school program context (see Tables 22, 24, and 25). The overall myON usage data by grade represented the combined myON usage of each student in both the school and home setting. The overall myON usage by grade level for the hours of reading[1] showed increased usage as students moved up in the grade levels (see Table 22).

[1] Three outliers, defined as more than three standard deviations from the mean, were found for number of myON hours of reading. Each outlier was investigated individually and found to be a valid student indicator. Subsequent analyses were run with and without the outliers and no differences were found in the findings. As a result, the outliers were kept in the sample.

Table 22. Overall myON Usage in Hours per School Year by Grade Level

Grade level	*N*	Minimum	Maximum	*M*	*SD*
TK/K	67	0.00	23.90	1.55	4.16
1st	81	0.00	115.56	13.99	22.63
2nd	60	2.36	111.45	40.69	23.72
Total	208	0.00	115.56	17.68	24.64

The hours included time spent reading portions of books as well as completing books. Similarly to traditional print books, students may have previewed a book or began reading a book without completing it.

Patterns by Grade Level for myON Hours Reading

A one-way between-groups analysis of variance (ANOVA) showed that the effect of grade level was statistically significant on myON usage as measured by the average number of myON hours reading. The independent variable was grade level groupings: TK/K, first-grade, and second-grade. The dependent variable was the average number of hours of reading in myON (see Table 22). There was a statistically significant difference in myON hours reading for the three grade level groups, F (2, 205) = 68.47, p = .00. Post hoc comparisons, using the Games-Howell post hoc procedure indicated a statistically significant difference between each of the grade level groups on the average number of myON hours reading (see Table 23).

Table 23. Post Hoc Results Comparing Average Number of myON Hours of Reading per School Year by Grade Level

		Mean Differences (*d*)		
Grade level	Mean	TK/K	1st	2nd
TK/K	1.55			
1st	13.99	12.44* (0.76)		
2nd	40.69	39.14* (2.30)	26.70* (1.15)	

*$p < .05$.

Students in second-grade ($M = 40.69$, $SD = 23.72$) had a significantly higher average number of myON hours reading than students in first-grade ($M = 13.99$, $SD = 22.63$) as well as students in TK/K ($M = 1.55$, $SD = 4.16$). The effect sizes were 1.15 and 2.30, respectively, indicating a large effect size per Cohen's *d* (Cohen, 1977). Additionally, students in first-grade ($M = 13.99$, $SD = 22.63$) had a significantly higher average number of myON hours reading than students in TK/K ($M = 1.55$, $SD = 4.16$), with an effect size of 0.76, indicating a medium effect size per Cohen's *d* (Cohen, 1977).

In order to further answer the research questions regarding the role of a digital library in the daily language and literacy practices of children in their home and school contexts, I analyzed the number of hours spent using myON at school versus home. Each time a student logged into myON, dates and timestamps were generated. I determined the total school usage hours by including myON dates and timestamps during school days for the hours of 8:00 am to 3:00 pm. For the students who attended one of the after school programs, I totaled the school usage hours by including myON timestamps during school days for the hours of 8:00 am to 6:00 pm. The home usage hours included myON dates

and timestamps outside of the school context to include before 8:00 am, after 3:00 pm (or after 6:00 pm for those students in the after school program), weekends, and holidays. The average hours of usage by grade level and the percent of usage comparing school versus home for all students are shown below (see Table 24).

Table 24. Average Hours of myON Usage per School Year in School and Home

Grade	Total	School (percent of total)	Home (percent of total)
TK/K	1.55	0.49 (31.71)	1.06 (68.29)
1st	13.99	9.16 (65.49)	4.83 (34.51)
2nd	40.69	34.27 (84.23)	6.42 (15.77)
TK-2nd	17.68	13.60 (76.95)	4.08 (23.05)

There is an increase in percent of usage in the school context as the students move up in the grade levels. There is a decrease in percent of usage in the home context as the students move up in the grade levels. Since the school context includes both the classroom and after school programs, the percent of the school usage found in the two school contexts is shown below (see Table 25).

Table 25. Average Hours of myON School Usage per School Year in Classroom and After School Program

Grade	School total	Classroom (percent of total) (*N*=208)	After School Program (percent of total) (*n*=48)
TK/K	0.49	0.32 (65.86)	0.17 (34.14)
1st	9.16	8.89 (97.00)	0.27 (3.00)
2nd	34.27	32.75 (95.56)	1.52 (4.44)
TK-2nd	13.60	13.00 (95.60)	0.60 (4.40)

The highest percent of myON usage for all participants was in the classroom context. The after school programs provided another opportunity for students (*n*=48) in this study to engage with myON. The TK/K group had the lowest percent of myON access in the classroom and the highest percent in the after school program.

Patterns by Student Demographics for myON Usage

In order to determine if any of the student level variables had an impact on myON, multiple ANOVA's and t-tests were run to identify if there were any significant differences between student groups. I conducted ANOVA's to explore the impact of race/ethnicity and parent education on total myON hours of reading, myON hours in school, myON hours in the classroom, myON hours in an after school program, and myON hours at home. Participants were divided into five race/ethnic groups (White; African American; Asian; Hispanic; American Indian), and six education level groups (1: not high school (HS) graduate; 2: HS graduate; 3: some college; 4: college graduate; 5: graduate school; 6: declined to answer). I also conducted independent-samples t-tests to compare the total myON hours of reading, myON hours in school, myON hours in the classroom, myON hours in an after school program, and myON hours at home for males and females, and English learners and English only students. The mean and standard deviation for each group are shown below (see Table 26).

Table 26. myON Usage in Hours per School Year by Student Groups

	myON Usage *M* (*SD*)				
Student Variable	Total Hours	Hours in School	Hours in Classroom	Hours in After School Program	Hours at Home
White	19.74 (28.74)	14.36 (22.41)	14.11 (22.31)	.25 (.86)	5.38 (10.37)
African American	9.79 (12.63)	6.80 (10.51)	6.48 (10.50)	.32 (1.15)	2.99 (4.29)
Asian	6.58 (11.63)	4.88 (9.87)	4.58 (9.68)	.30 (.69)	1.70 (2.53)
Hispanic	18.99 (24.45)	15.12 (21.24)	14.28 (20.45)	.84 (3.07)	3.87 (7.07)
American Indian	7.22 (8.41)	5.12 (5.09)	5.12 (5.09)	0.0 (N/A)	2.10 (3.63)
Not HS Graduate	13.60 (20.83)	11.62 (.63)	10.55 (17.32)	1.08 (4.20)	1.98 (2.82)
HS Graduate	10.68 (16.69)	7.75 (15.15)	7.72 (15.17)	.03 (.16)	2.93 (5.20)
Some College	22.47 (26.23)	18.03 (22.27)	17.26 (21.70)	.77 (2.31)	4.44 (7.99)
College Graduate	20.07 (27.29)	14.99 (22.99)	14.64 (23.06)	.35 (.92)	5.07 (9.59)
Graduate School	16.04 (26.68)	9.71 (16.78)	9.44 (16.83)	.27 (.95)	6.33 (10.63)
Declined Answer	21.77 (32.21)	16.90 (23.08)	15.07 (22.59)	1.82 (4.83)	4.88 (11.02)
Male	20.87 (29.05)	15.81 (23.39)	15.16 (22.86)	.65 (2.64)	5.06 (9.40)
Female	14.99 (20.02)	11.74 (17.76)	11.18 (17.20	.56 (2.23)	3.25 (6.12
English Only	17.84 (24.02)	13.53 (20.14)	12.94 (19.77)	.59 (2.11)	4.31 (7.82)
English Learner	13.63 (21.64)	13.63 (21.64)	13.01 (20.69	.62 (3.09)	3.40 (7.74)

There was not a statistically significant difference in total myON hours of reading for any of the race/ethnicity groups: F (4, 203) = 1.4, p = .24. There was not a statistically significant difference in myON hours of reading in school for any of the race/ethnicity groups: F (4, 203) = 1.3, p = .27. There was not a statistically significant difference in myON hours of reading in the classroom for any of the race/ethnicity groups: F (4, 203) = 1.3, p = .29. There was not a statistically significant difference in myON hours of reading in the after school program for any of the race/ethnicity groups: F (5, 202) = .73,

$p = .57$. There was not a statistically significant difference in myON hours of reading at home for any of the race/ethnicity groups: F (4, 203) = .86, $p = .49$.

There was not a statistically significant difference in total myON hours of reading for any of the parent education groups: F (5, 202) = 1.6, $p = .18$. There was not a statistically significant difference in myON hours of reading in school for any of the parent education groups: F (5, 202) = 1.6, $p = .16$. There was not a statistically significant difference in myON hours of reading in the classroom for any of the parent education groups: F (5, 202) = 1.5, $p = .20$. There was not a statistically significant difference in myON hours of reading in the after school program for any of the parent education groups: F (5, 202) = 1.6, $p = .15$. There was not a statistically significant difference in myON hours of reading at home for any of the parent education groups: F (5, 202) = 1.1, $p = .37$.

There was no significant difference in total myON hours of reading for males and females (t (157) = -1.66, $p = .10$, two-tailed). There was no significant difference in total myON hours of reading in school for males and females (t (168) = -1.39, $p = .17$, two-tailed). There was no significant difference in myON hours of reading in the classroom for males and females (t (167) = -1.39, $p = .17$, two-tailed). There was no significant difference in myON hours of reading in the after school program for males and females (t (206) = -.26, $p = .79$, two-tailed). There was no significant difference in myON hours of reading at home for males and females (t (151) = -1.60, $p = .11$, two-tailed).

There was no significant difference in total myON hours of reading for English only students and English learners (t (206) = .21, $p = .83$, two-tailed). There was no significant difference in total myON hours of reading in school for English only students

and English learners (t (206) = -.03, p = .98, two-tailed). There was no significant difference in myON hours of reading in the classroom for English only students and English learners (t (206) = -.02, p = .98, two-tailed). There was no significant difference in myON hours of reading in the after school program for English only students and English learners (t (206) = -.10, p = .92, two-tailed). There was no significant difference in myON hours of reading at home for English only students and English learners (t (206) = .76, p = .45, two-tailed).

The ANOVA findings regarding grade level (see Table 23) showed a significant difference of myON usage between grade levels. An explanation for the non-significant findings by student groups could be that the majority of myON usage took place in the school and the classroom, rather than the homes (see Tables 24 and 25). Since student groups identified by race/ethnicity, parent education, gender, and English proficiency were fairly evenly distributed across grades and classrooms, it is less likely to show a statistically significant difference in myON usage between the student level groups. The non-significant findings regarding these student groups supports the HLM finding that teacher and grade level accounted for the majority of variations in myON usage rather than the student level variables.

I conducted independent-samples t-tests to compare the myON hours in the after school program between those low SES with those who were not (see Table 25). The results were statistically significant, t (179.70) = 2.33, p = .002, with a moderate effect size (d = .35), 95% CI [.09, 1.09]. My examination of the group means indicated that low SES students had significantly higher myON hours of usage in the after school program (M = .78; SD = 2.84) than those not low SES (M = .19; SD = .71). Since one of the

criterion for attendance in the ASES program was low SES and students were provided time to access myON during ASES, this finding is expected.

I conducted independent-samples t-tests to compare the impact of parent education level on the likert scale parent reporting of technology practices in the home (see Table 20). The results were statistically significant, t (2.76) = 191, p = .001, with a small effect size (d = .04), 95% CI [2.53, 15.28]. My examination of the group means indicated that those students whose parents had any amount of college had significantly higher myON hours of usage (M = 20.84; SD = 26.62) than those whose parents had no college (M = 11.93; SD = 18.45). The reasons for this finding are not clear, but may be based on the possibility that parents with a college education make more money and have more resources available in regards to technology devices and Internet access (Burchinal & Forestieri, 2010). These parents may also have a larger repertoire of skills to support their child's literacy development, which may include reading from myON.

Hierarchical Linear Modeling (HLM)

While the ANOVA and t-test analyses showed variations in the dependent variable, myON usage, in terms of the independent variables of grade level, school setting, parent education level, and SES, the adoption of multilevel modeling techniques was helpful to take different levels within a hierarchy of nested variables into account. In the present study, student participants (N=208) were nested within one school, three grade levels, 13 classrooms, and their individual home context. Several student participants (n=48) were also nested within one of two after school programs. Therefore, the student participant group reflected a typical hierarchical structure (Lee, 2000).

Teacher Level and Student Level Variables

I applied multilevel modeling using the HLM 6 software (Raudenbush, Bryk, & Congdon, 2004) to investigate the relationship between teacher level variables and student level variables on overall myON usage. The following variables (see Table 27) were initially selected for the HLM analysis because previous qualitative and quantitative results indicated a relationship between these variables and overall myON usage. In previous analyses, I combined TK with kindergarten; however, in order to increase the power of the HLM analysis, I coded TK and kindergarten separately for HLM.

Table 27. Teacher and Student Level HLM Variables

Level	Variable	Variable Code	Description	Response Code
Teacher				
	Grade	GRAD	Students were in transitional kindergarten, kindergarten, first-grade, or second-grade.	0=TK 1=K 2=1st 3=2nd
Student				
	Race/Ethnicity		The students' race and ethnicity was dummy coded as White, Hispanic, or other.	
		HSP	Hispanic	Hispanic: 0=no 1=yes
		WHT	White	White: 0=no 1=yes
		OTH	Other	Other: 0=no 1=yes
	Low Socioeconomic Status	LSES	A student was categorized as socioeconomically disadvantaged based on one or more of the following: Migrant Ed, Parent is not a HS graduate, Homeless, Foster or qualifies for Free or Reduced Lunch.	Not Low SES=0 Low SES=1
	Parent Education Level	PAED	Students' parent education level was coded as any amount of college or no college.	No College=0 College=1
	After School Program Participation	AFTS	Student participation in one of two after school programs.	No After school=0 After School=1
	Number of Technology Device in the home	NTDH	To assess the number of technology devices available to the student in the home, the parent answered the following survey question: What digital device(s) does your child use? All applicable responses were circled and included computer, cell phone, iPad/tablet, Chromebook, N/A- my child does not use a digital device. The total number of devices was totaled for each student.	No devices=0 One device=1 Two devices=2 Three devices=3 Four devices=4

The descriptive statistics of the student level variables are reported below (see Table 28).

Table 28. Descriptive Statistics of Student Level HLM Variables

Variables	*N*	*M*	*SD*	Minimum	Maximum
GRAD	208	1.89	0.91	0	3
WHT	208	0.27	0.45	0	1
HSP	208	0.39	0.49	0	1
OTH	208	0.33	0.47	0	1
LSES	208	0.70	0.46	0	1
PAED	195	0.62	0.49	0	1
AFTS	208	0.23	0.42	0	1
NTDH	208	2.22	0.92	0	4

In previous analyses, I identified the first/second-grade combination class as one class; however, in order to increase the power of the HLM analysis, I coded the teacher who taught a first/second-grade combination as two separate classes in the HLM analysis. The descriptive statistics of the teacher level variables are reported below (see Table 29).

Table 29. Descriptive Statistics of Teacher Level HLM Variables

Variables	*N*	*M*	*SD*	Minimum	Maximum
myON Hours	14	18.88	24.24	0	3
GRAD	14	1.79	0.89	0	3
WHT	14	0.28	0.13	0	1
HSP	14	0.36	0.16	0	1
OTH	14	0.36	0.23	0	1
LSES	14	0.72	0.12	.57	1
PAED	14	0.58	0.24	0	1
AFTS	14	0.20	0.13	0	0.37
NTDH	14	2.20	0.18	2	2.71

A polychoric correlation is a technique for estimating the correlation between variables that are ordinal or ordered categories with a small number of levels, or for when the variables are dichotomous, or have two categories. Since the variables used in the HLM analysis were mostly dichotomous, this type of correlation was most appropriate. The polychoric correlations (R Core Team, 2016) between the variables are provided below (see Table 30).

Table 30. Polychoric Correlations of HLM Variables

Variables	1	2	3	4	5	6	7	8
1. GRAD	1							
2. WHT	-.22	1						
3. HSP	.03	-.48	1					
4. OTH	.11	-.53	-.46	1				
5. LSES	.14	-.46	.16	.24	1			
6. PAED	.20	.46	-.31	-.27	-.54	1		
7. AFTS	.17	.04	.10	.06	.21	.23	1	
8. NTDH	.09	.02	.15	-.21	0	.28	.48	1

The polychoric correlations indicated that parent education, race/ethnicity (White, Hispanic, and other) and low SES may have been multicollinear with the myON usage outcome. The polychoric correlations also indicated that the number of devices may have been multicollinear with participation in the after school program. I took the polychoric correlations into consideration as the HLM models were explored and developed.

Teacher Effect

My preliminary examination of myON usage suggested that student grade level groups had variances in myON usage (see Table 22). In order to confirm the appropriateness of HLM, an unconditional model with no student level variables was run to determine the intraclass correlation coefficient (ICC), which quantified the proportion of the total variation in myON usage accounted for by the teacher (Bryk & Raudenbush, 1992). The resulting ICC was very high indicating that 65.6% of myON usage variability

at the group level was due to the teacher. Lee (2000) recommends an HLM analysis whenever the ICC in a multilevel system is above 10%; therefore the high ICC of 65.6% found in the unconditional model analysis validated the development of a two level model using the HLM analysis.

Model one: grade. Next, a two level model was run to include the level two variable of grade. The analytic model follows:

Level 1 (Student) model:

$\gamma_{ij} = \beta_{0j} + r_{ij}$

Level 2 (Teacher) model:

$\beta_{0j} = \gamma_{00} + \gamma_{01}(GRAD) + u_{0j}$

Results of the conditional model indicated that grade was a significant predictor of individual student myON usage. Results of the model are shown below (see Table 31).

Table 31. Level Two HLM Analysis, with myON Usage as Dependent Variable

Variable	Regression Coefficient	Standard Error	T-ratio	p-value
Teacher Level				
Grade	19.40	4.73	4.10	.002**

**$p < .01$

The results indicated that there is a significant variation in myON usage by grade level.

Model two: full model. A full model was run in HLM. The results indicated a significant effect for grade ($\gamma = 18.84, p = .002$) and low SES ($\gamma = -5.25, p = .040$). Parent education, race/ethnicity, and number of technology devices in the home were not significant. Since parent education, race/ethnicity (White, Hispanic, other), and after school participation seemed to be multicollinear with the myON usage outcome and

were not shown to be significant, they were removed from the final HLM model (see Table 32). The number of technology devices was kept because it was close to significant ($p = .090$). The variables of parent education, race/ethnicity, and after school program participation were removed for the sake of parsimony, and the HLM analyses were recomputed. The relatively small number of teachers (n=14) limited the power of HLM to find significance in the full model, even with some sizable coefficients, especially for the number of technology devices in the home.

Final model. Several models, in addition to the two reported above, were explored to determine which student level variables were significant. The model was refined when it was discovered that some student level variables (parent education level, race/ethnicity, and after school program participation) were not significantly related to students' myON usage. Further, differences in deviance statistics between the models were compared and tested using χ^2 with degrees of freedom equal to the differences between parameters estimated. In addition, I examined polychoric correlations between the model predictor variables to determine the likelihood that they may have been multicollinear with the myON usage outcome. After exploring additional student level models, a final model was decided upon to include grade, low SES, and number of technology devices in the home. The final analytic model included teacher level as well as student level variables:

Level 1 (Student) model:

$$\gamma_{ij} = \beta_{0j} + \beta_{1j}(LSES) + \beta_{2j}(NTDH) + r_{ij}$$

Level 2 (Teacher) model:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(GRAD) + u_{0j}$$

$$\beta_{1j} = \gamma_{10}$$

$$\beta_{2j} = \gamma_{20}$$

The two level model included the teacher level variable of grade, and student level variables of low SES and number of technology devices in the home. The results of this analysis indicated, after controlling for the teacher, that grade, low SES, and number of technology devices in the home were significantly related to overall myON usage. The results of the final model are presented below (see Table 32).

Table 32. Final Two-Level HLM Analysis, with myON Usage as Dependent Variable

Variable	Regression Coefficient	Standard Error	T-ratio	p-value
Teacher Level				
Grade	19.53	4.70	4.15	.001**
Student Level				
Low SES	-5.98	2.23	-2.68	.008**
Number Devices	2.24	1.10	2.02	.044*

*$p < .05$; **$p < .01$

The final model predicted that student myON usage increased by 19.53 hours for each increase in grade level. Student myON usage decreased by 5.98 hours for students classified as low SES. Student myON usage increased by 2.24 hours with each increasing number of technology device in the home.

The HLM analysis indicated that the largest effect on myON usage was the random effects of the teacher grouping, which accounted for 65.6% of the total variance. The strongest predictor of the teacher level variance was grade, accounting for 69% of the teacher level variance, and alone accounted for 40% of the total variance. When controlling for teacher and grade, the student level variables of low SES and number of technology devices in the home also had a significant effect on myON usage, accounting for 5.4% of the student level variance, and 1.6% of the total variance.

In consideration of the previous findings regarding classroom practices and the connection between homework and home literacy practices, it is clear that the teacher is the primary determiner of myON usage in both settings. In addition, the students' SES classification and number of devices available in the home also predicted myON usage. In Chapter Five, it was reported that children in low SES families participated in significantly less literacy activities than children who were non-SES, therefore the finding of less myON usage makes sense because myON is yet another type of literacy event. In regards to the access to devices, I suspect that it is not necessarily that more devices automatically translate to more myON usage, but rather they allow those who are already engaged in multiple literacy activities to have easy access. The lack of a digital device and Internet access, as shown in Chapter Four, automatically translates to no myON access. In general, more devices simply make it easier for a child to integrate myON into their practices. The HLM shows the complexity of this nested group of children, and the findings should be interpreted in such a way that they describe children's daily practices.

Student Vignettes

The quantitative analysis in the previous section indicated that the largest predictor of student myON usage was the teacher, followed by grade level. To a lesser degree, the HLM analysis identified SES and the number of devices in the home as having an effect on myON usage. The following vignettes of three students, across each of the grade levels, were developed to provide a glimpse into the variance in the daily practices of students in each grade level in both the home and school context. In alignment with my theoretical framework, I begin each vignette situating the child within their home context. I then describe each child's daily experiences as they begin their morning at school and follow-up with their afternoon and evening routine at home. I used individual student data, and teacher and parent survey and interview responses to create the vignettes.

Franco: TK/K Student with Low myON Usage

In the vignette below, Franco's home practices were unique to his individual family; however his classroom practices were typical of a TK/K student at Mighty Elementary. Franco is a TK/K male student who identifies as Asian/Pacific Islander and is classified as low SES. Franco speaks English; however, he lives in a home in which his father and both grandparents speak Samoan. Franco's parents have both graduated high school. Unfortunately, his family has fallen on hard times because his mother has been very ill throughout the school year and has had to attend numerous doctor's appointments as well as hospitalizations. Franco's parents had to move from their home near Mighty Elementary to his maternal grandparents' home in a neighboring town. This allowed his grandparents to help care for Franco (age five), his three siblings (ages six, two, and one),

and his mom. Franco is representative of a TK/K student at Mighty Elementary who had low overall myON usage. Franco had zero hours of overall individual myON usage during the school year. The only time Franco integrated myON into his daily practices was when his teacher occasionally projected myON books on the screen during whole class read alouds.

Franco begins his day greeting his TK teacher, Mrs. Jane, at his classroom door. After entering the classroom, Franco and his classmates form a circle on the carpet to have a conversation about what they will be doing that day. Next they sing the ABC song while they dance. Phonemic awareness activities, like rhyming follow the singing and dancing. Franco's favorite part of the morning is doing work in centers because he gets to have fun doing an ABC activity, playing Lexia on the iPad, and reading books from his book box. His teacher picks the books and puts them in his book box. He told her that he loves dinosaurs, so she does her best to put dinosaur books in his box. Since several other students love dinosaur books, he doesn't always get them in his box. While he is working on the ABC activity, Lexia, or reading, his teacher sometimes comes over and helps him or the other students at their center. Next is recess. Franco loves playing with his friends on the playground at recess.

After recess, Mrs. Jane always reads a story to the class. It is usually a print book, but sometimes she projects a book from myON on the screen so the whole class can follow along. When Mrs. Jane uses myON, she lets the computer read to the class. Franco recalls one particular myON book about groundhogs that his teacher showed on Groundhog Day. Franco and his classmates always do a follow-up writing or coloring

activity that goes along with the story. The rest of the morning, up until lunch, includes calendar and math activities.

When Franco returns from lunch it is quiet time. After he rests, he gets to find a book to read to himself. He can only decode some of the high frequency words, but he enjoys looking at the pictures as he makes up the story. When all of the students come back to the carpet, the teacher reads another book to the class. Just like in the morning, it is usually a print book, but sometimes Mrs. Jane will have students listen to a myON book as she projects it on the screen. The rest of the afternoon includes science, PE, and Franco's favorite part of the afternoon, centers. During centers he can write on white boards, play in the kitchen area, read books, or choose a tub with items like blocks, Legos, and Lincoln Logs. The day ends just like it began with circle time. During the closing circle, Franco has a chance to talk with his teacher and classmates about what he learned that day.

Following the afternoon circle it is time to go home. Franco's mom or one of his grandparents pick him and his older sister (age six) up from school and bring them home. Franco is very conversational as he describes his day at school during a 30-minute drive from Mighty Elementary to his grandparents' home where he and his family are now living.

When Franco gets home from school he works on his weekly homework packet. It includes a few pages for him to practice writing his name, letters, numbers, and coloring. Mom is the primary participant in Franco's homework, but his dad helps whenever she is sick. Franco's grandparents primarily speak Samoan, so they do not participate in Franco's homework. Mrs. Jane's homework suggests that Franco read with

his parents and discuss a book every day. After working on the homework packet, instead of reading a book, Franco spends most of his afternoon and evening watching kid videos on television or playing a monster game on his mom's cell phone. In addition to the cell phone, his six-year-old sister has an iPad that Franco occasionally uses to do Lexia, ST Math, or read from Raz-Kids, all skill-based programs recommended by Mrs. Jane. Franco's family does not have Internet in their home, so his mom uses her cell phone to create a hotspot for the iPad. Neither Franco, nor his sister has read digital myON books at home during the school year. Franco's mother had never heard of myON until she saw it mentioned on the home survey that Franco brought home. Once Franco's mother hears about myON, she wonders if Franco might like it better than Raz-Kids. Since dinosaurs are Franco's favorite topic, she is curious about the number of dinosaur books myON might have. Franco also has his own dinosaur books that he likes to look at. Sometimes his six-year-old sister will read one to him. According to his mother, Franco reads books at home a few times a month.

Bedtime is a fun time for Franco and his siblings. The most common bedtime routine in his home is for his dad to orally tell a classic children's story to the children as he tucks them into bed. A couple times a month, instead of telling an oral story, Franco's dad reads a book to Franco and his two younger siblings. His older sister is not included because she already knows how to read, so she is encouraged to read to herself. (Vignette based on teacher and parent survey and interview responses.)

Franco's daily classroom activities included language activities, exposure to a variety of print that the teacher selected, skill-focused instruction, and limited use of technology. When asked how important it was to integrate technology in the classroom,

Mrs. Jane's response indicated her preference for having students engage with print books in her classroom:

> At my level, at the TK/Kindergarten level, I don't think it's the most important piece because I think that the kids have so much of that plug-in time that it's important for them to actually see the book and turn the pages and see how it works rather than if we always have books on tapes or books on the computer where it is reading it to them, it's just a different interaction than if somebody's doing it with a person. I think technology has its place, but I don't want to over do it. I don't want that to be the only place they hear their stories or they learn about phonics or whatever it might be…So I think it's important to have that book. To have that interaction between people and not just a technology computer screen. To be able to talk about things and learn from somebody else. But have that face-to-face conversation. I think that eye contact and reading with another person is missing. (Interview, Jane, TK teacher)

The other two kindergarten teachers expressed similar views in favor of reading print books over digital books, and in limiting screen time (AAP, 2010). The kindergarten teachers also mentioned their preference for recommending Raz-Kids to parents because the books in Raz-Kids were decodable and in their opinion, developmentally appropriate, which showed that they valued code-focused over meaning-focused reading (Connor, 2010). The TK/K teachers' beliefs about how children learn to read, the high value they put on the use of print books selected by the teachers, and the information they provided their students' parents that aligned with these beliefs explained the low level of individual student myON usage for TK/K students at Mighty Elementary School.

Franco's home literacy activities show that he typically completes his homework and may occasionally use his mom's hotspot to read from Raz-Kids on his sister's iPad. Franco pretend reads the few children's books he has available in his home, but is more likely to spend his time participating in entertaining activities such as playing games on his mom's cellphone, watching YouTube, and watching television. His daily bedtime

routine includes listening to oral bedtime stories told by his father. His mother had not heard of myON prior to the interview because Raz-Kids was the digital library suggested by Franco's teacher. At the end of the interview she asked me to share the myON information with her, so that Franco could have additional books to read (Interview, Franco's mother, TK student).

A personalized version of the original conceptual model (see Figure 1) of language socialization theory (Ochs & Schieffelin, 2008) and cultural communities framework (Gutierrez & Rogoff, 2002; Rogoff, 2003) representing Franco, a student with low myON usage, is shown below (see Figure 8).

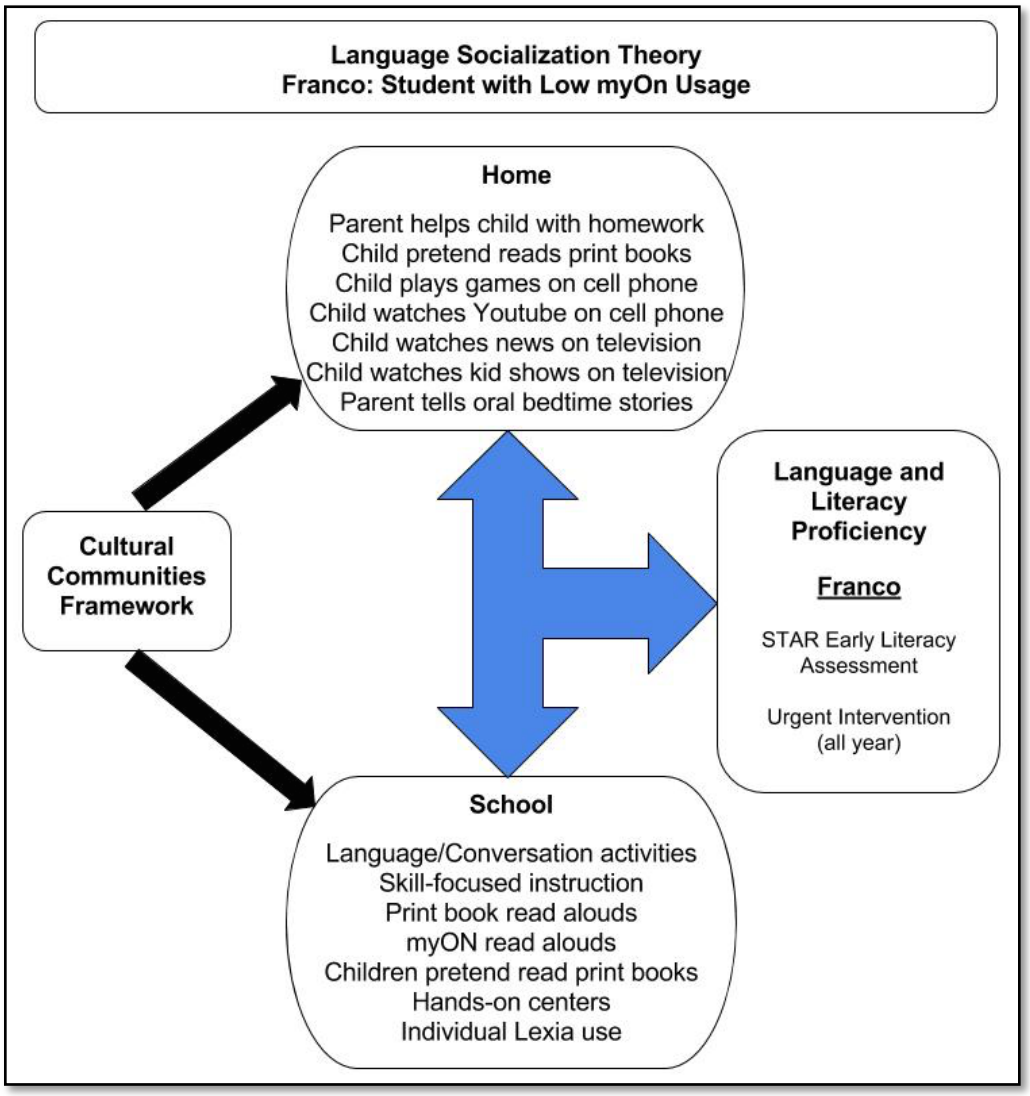


Figure 8. Conceptual model of language socialization theory and cultural communities framework for student with low myON usage.

As the conceptual model in Figure 8 shows, Franco, a student with low myON usage, had limited opportunities to engage with complex text in both the school and home context, which may have contributed to the low language and literacy proficiency on his STAR Early Literacy assessment. Franco's classification of low SES, resulting in limited literacy resources and literacy experiences in his home environment, has also contributed to his low literacy proficiency (Burchinal & Forestieri, 2010; Foster et al., 2005).

Mary: First-Grade Student with Moderate myON Usage

In the vignette below, Mary's home practices were unique to her family context; however her classroom practices were representative of a first-grade student at Mighty Elementary. Mary is a first-grade female student who speaks English, identifies as White, and is classified as not low SES. Mary's parents have both graduated college, and her mother is currently pursuing a master's degree in library and information science. As part of her master's program, Mary's mother volunteers at the Mighty Elementary student library on a regular basis. Mary is an only child, so her parents are able to spend most of their free time engaging her in a variety of rich literacy experiences. Mary is representative of a first-grade student at Mighty Elementary who had moderate overall myON usage. Mary had a total of 19.87 hours of overall individual myON usage during the school year. As the vignette will show, Mary's myON literacy events were integrated into a variety of her daily practices in both the classroom and home context.

Mary, along with her peers, enters Mrs. Sally's first-grade class for attendance, but quickly leaves to begin her day in another first-grade teacher's classroom for differentiated reading instruction (DI time). Mary is in the high reading group, so she spends DI time participating in research projects. Mary and the other high readers get to pick what topics they want to research and then create Google presentations of what they learn. Mary loves animals, so one of her recent research topics was polar bears. After DI time, Mary rejoins Mrs. Sally and her first-grade peers on the carpet for a calendar activity followed by a quick review of phonemic awareness or phonics skills. The students return to their desks for a shared reading which is usually a print book, but sometimes it is a book from myON. When Mrs. Sally uses myON, she projects the book

on the screen while the computer reads to the class. After reading and discussing the text, Mary and her classmates will respond to a prompt about the reading in a journal. Sometimes Mary gets to read what she wrote to the rest of the class. Next, Mary and all of her peers chorally read a phonics reader out loud twice to practice their fluency. After fluency practice, Mary works on common core writing to include narrative, informational, or opinion text types. After writing, Mary goes to recess.

After recess, Mary and her peers write in their math journal where they solve a math problem while explaining their thinking with pictures, words, and numbers. Next the class participates in a Number Talk. They end the math time with the teacher teaching the math lesson for that day. When math concludes, it is lunchtime.

After lunch, the students begin their Daily 5 rotation, which allows Mary to work through five literacy workstations. Mary rotates through fluency practice, reading a print book on her own, rereading the print book with a partner, writing in her journal about the print book, working on Lexia on an iPad, and reading in a small guided reading group with the teacher. Mary reads above grade level, so her titles for fluency, independent reading, and guided reading are selected by the teacher to match her reading level. Up until March, Mary had to complete her first-grade Lexia curriculum during the Daily 5 rotations. Since March, Mary has completed the required curriculum in Lexia, so she, along with her classmates who have also completed the Lexia curriculum, have had the option during Daily 5 to substitute Lexia with reading books from myON. Mary's myON log shows that since the beginning of March she has spent time in class reading about animals, dragons, and Scooby Doo. Mary and her classmates cheer whenever they get the chance to read books on myON.

Once a week, Mary's entire class visits the computer lab. Since March, while in the computer lab, Mary can choose to substitute Raz-Kids with myON. Mary always selects myON because she likes the book choices much more than the decodable readers found in Raz-Kids. While reading, Mrs. Sally will sometimes come over to Mary and ask her to read a passage from the myON text out loud so she can monitor Mary's fluency. Mary doesn't turn the myON voice on anymore because her teacher and her mother think it is better for her to do her own reading, rather than have a computer read it.

The remainder of the afternoon involves switching with other first-grade classes for science, health, social studies, and ELD. During the most recent science and health rotations, Mary learned about body systems and how to keep her body healthy. These units often included using informational text from myON to learn about the topic. Mary always looks forward to going home following the afternoon rotations so she can tell her mother about the topics she has learned in school.

Mary's mother is always the one to pick Mary up after school and bring her home to begin homework. All of the first graders at Mighty Elementary School have the same homework. Each day Mary chooses one of four different items to work on for 20-minutes. The choices include myON, Raz-Kids, Lexia, and ST Math. In addition to the digital options, Mary has to answer a math or science question. Mary is usually able to complete her homework with very little help from her mother, though her mother is always available if needed. Mary enjoyed the homework earlier in the year because she was able to choose what she wanted to work on. About three quarters of the way through the year, Mary became bored with the monotony of the same homework choices. In addition, she would sometimes become frustrated with Lexia and ST Math because she

would get stuck on a level. One part of the homework that Mary enjoyed was reading from myON. Just like at school, Mary always chooses myON over Raz-Kids at home because she prefers the variety myON offers. A few times a week, throughout the entire school year, she will go back and read more books on myON even if she has already checked it off for the homework. Mary often selects books by looking through the myON library by category. According to her myON log, Mary's favorite home reading categories are the same as those shown at school, which include animals, dragons, and scary stories.

Since Mary is an only child, she often creates projects beyond the homework to keep herself busy. Mary chooses to spend her afternoons and evenings discussing topics with her parents that she is interested in, researching those topics on the Internet, doing science projects with her father, and reading books with her mother and father. Mary has Internet in her home and access to a computer, iPad, and Chromebook. Recently, a friend of Mary's got a new puppy, so Mary decided to read books about dogs and to research dog toys. She was interested in how to make dog toys. After conducting her research on the Internet, she ended up making a few toys for her friend's puppy.

Reading is a big part of Mary's daily routine. Mary starts her day reading the news on the computer with her father and ends her day reading a print book with her mother or father as part of her bedtime routine. Mary even chooses to read with her friends whenever she has a play date. Mary and her mother will often sit in their backyard garden or on the living room couch and read together. Mary's favorite genres are non-fiction and adventure. The Magic Tree House series is one of her favorite series. As an extension to reading a Magic Tree House book, Mary and her mother will visit the Magic

Tree House website and do some of the suggested activities including acting out scenes from the book. When Mary's mother volunteers in the Mighty Elementary School library she often brings books home from the library for Mary to read. In addition to reading myON and print books, Mary loves to read children's magazines and encyclopedias. (Vignette based on teacher and parent survey and interview responses, and myON usage data.)

Mary's daily classroom activities included immersion in a variety of print, differentiated resources and instruction, and a balanced use of technology. When asked how important it was to integrate technology in the classroom, Mrs. Sally's response showed her struggle in accepting the value of digital books as a supplement to print books:

> I've been more reluctant than some people I think. Because I was trained all through that Houghton Mifflin direct instruction module . . . I also love to sit with the kids and read, especially the low kids. That's my forte. I really like that. I was hesitant to put them on technology. I would rather be with them. As the years progress and I've seen how it's helped my mid group move toward the high. I've seen how my high group has taken off in terms of gaining knowledge. I'm realizing just how very important it is. Having devices and the programs we have now have made a difference. Rather than just having Starfall in the computer lab. Which is great, but it's really nice to have something you can look at to find out where they are and what they need and how you can help them in those areas…When I'm doing small group I watch them on their Lexia or myON. I realize that they're engaged. I'm not 100% sure if it wouldn't be better for them to do something like Read Naturally that I could then pull them back to the table or just walk around and ask one or two comprehension questions. I still have a sense of losing control when they're on the device and I'm not involved with what they're reading. Like I don't know the text they're reading…It seems to be helping them, so I'm in flux in terms of my thoughts on that. (Interview, Sally, first-grade teacher)

Sally's mention of how she was trained through the direct instruction module is evidence that her classroom practices were still being influenced by the curriculum indicative of

the NCLB era (Pearson & Hiebert, 2010). In addition to direct instruction, Sally also mentioned how she differentiated instruction for her students in small groups, which has been found to lead to increased literacy proficiency for students (Morrow & Smith, 1990; Taylor et al., 2000). The other two first-grade teachers also provided a combination of whole group and small group differentiated instruction. The first-grade teachers' expression of having a balance between digital and print books, as well as the struggle they had in making that decision, aligned to the NAEYC (2012) joint position regarding the appropriate use of technology and the AAP (2010) recommendation of limiting young children's screen time. The teachers expressed their preference for students using Raz-Kids up until March, with the option of myON from March until the end of the school year. This is evidence of a balance between code-focused and meaning-focused literacy events (Connor, Morrison, & Katch, 2004). The teachers' rationale for this was that the students were more proficient in reading and in independently navigating technology by March. The first-grade teachers' practices of immersing early elementary students in a variety of print, differentiating instruction, and providing a balanced use of technology along with the information they provided their students' parents that aligned with these beliefs explains the moderate level of individual student myON usage for first-grade students at Mighty Elementary School.

Mary's home literacy activities show that she typically completes her homework, which includes a combination of traditional and digital activities. In addition to her homework, Mary reads a variety of text from both traditional print and myON, engages in book extension activities, and participates in rich conversations with her parents. Mary's daily bedtime routine includes reading books with her parents. Mary's mother is very

familiar with myON and encourages Mary to read myON books without engaging in excessive screen time (Interview, Mary's mother, first-grade student).

A personalized version of the original conceptual model (see Figure 1) of language socialization theory (Ochs & Schieffelin, 2008) and cultural communities framework (Gutierrez & Rogoff, 2002; Rogoff, 2003) representing Mary, a student with moderate myON usage, is shown below (see Figure 9).

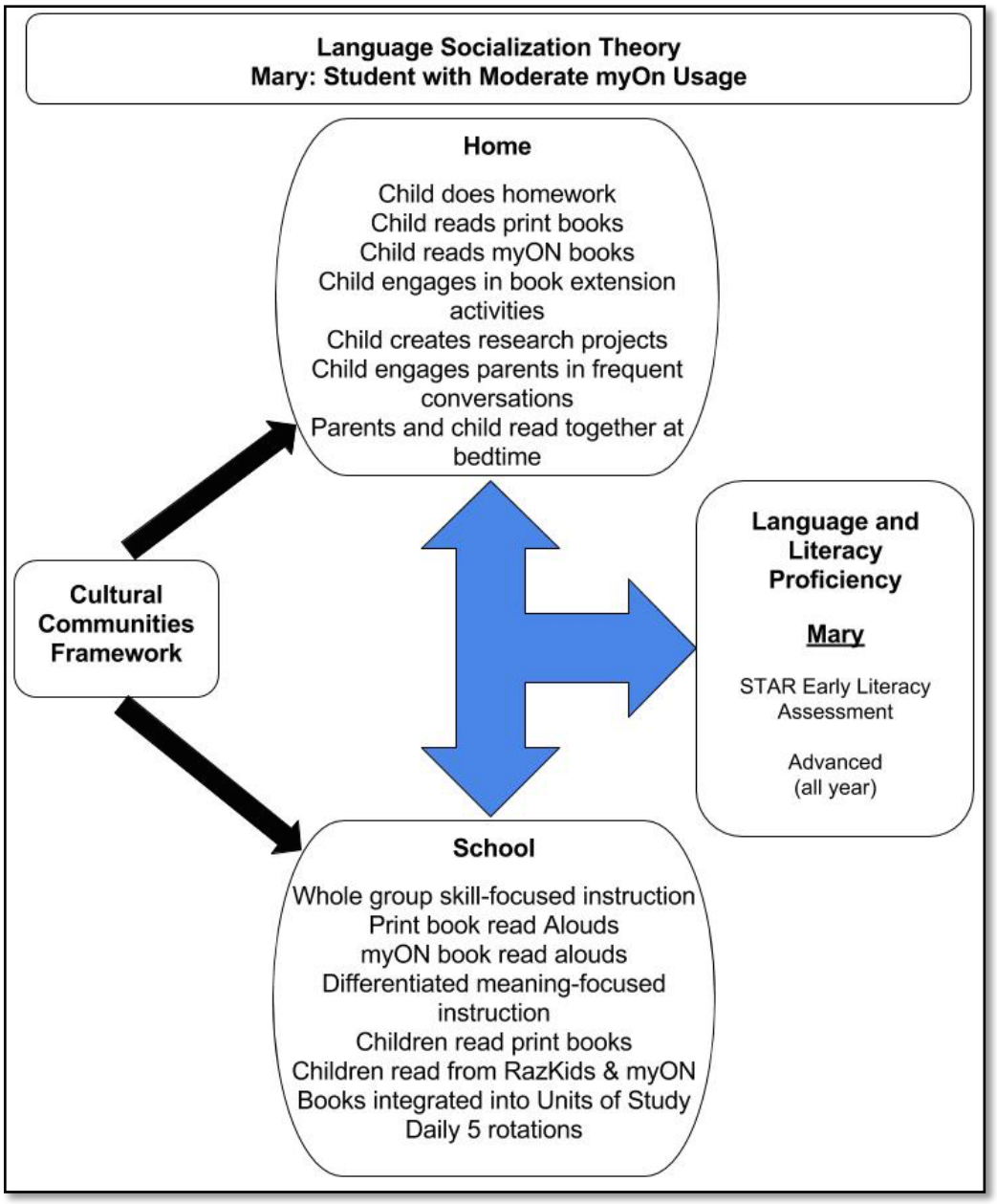


Figure 9. Conceptual model of language socialization theory and cultural communities framework for student with moderate myON usage.

As the conceptual model in Figure 9 shows, Mary, a student with moderate myON usage during a variety of literacy events, was provided balanced opportunities to engage in skill and meaning-focused activities using both print and digital text in the school and home contexts. Mary's home context was representative of a model

environment in which parental reading beliefs, literacy activities, joint book reading, and parental education have resulted in this student, Mary, maintaining an advanced language and literacy proficiency level throughout the school year (Bennett et al., 2002).

Andy: Second-Grade Student with High myON Usage

In the vignette below, Andy's home practices were unique to his family context; however his classroom practices were typical of a second-grade student at Mighty Elementary. Andy is a second-grade male student who speaks Spanish at home and is learning English at school, identifies as Hispanic, and is classified as low SES. Andy lives in a two-bedroom apartment with both of his parents and his five-year-old brother. His parents were born and raised in Mexico and neither of them graduated from high school. The American school system is challenging for them because neither of them speak English. Andy's parents have incorporated language practices so that they can help Andy with his English homework, such as using Google translate, as well as regularly communicating with Andy's bilingual teacher and bilingual after school assistants when support is needed. Andy is representative of a second-grade student at Mighty Elementary who has a high level of overall myON usage. Andy had a total of 67.75 hours of overall individual myON usage during the school year. As the vignette will show, Andy's myON usage was integrated into a variety of literacy events in the classroom, after school program, and home contexts.

Andy begins his day in Mrs. Olivia's class with a Daily 5 rotation, which allows him to work through five literacy workstations. Andy rotates through reading a print book on his own, listening to a book on myON, writing in his journal or working on an ongoing writing piece such as a personal narrative, working on Lexia on a Chromebook,

and reading in a small guided reading group with Mrs. Olivia. Andy reads at grade level, so he self-selects "good-fit books" for his independent reading, and his teacher selects his guided reading group titles to match his reading level. In myON, Andy has the choice of selecting from book projects created by his teacher to match his reading level or themes he has studied, or he can search in the myON library for books that he is interested in. According to Andy's myON log, his favorite search categories are scary stories, dinosaurs, and superheroes. After reading a print or digital book, Andy takes a comprehension quiz on what he reads through Accelerated Reader (AR) and/or myON. His teacher monitors his progress and helps him set monthly goals for increasing his reading level.

After completing the Daily 5 rotations, Andy and his peers join Mrs. Olivia on the carpet for writing workshop. Mrs. Olivia always teaches a writing mini-lesson that will help Andy and his peers with their narrative, informational, or opinion pieces. Andy returns to his desk to work on his writing piece. Sometimes Mrs. Olivia reads his writing piece with him and gives him tips on how to make it better. Andy will continue working on the same writing piece tomorrow at the Daily 5 writing workstation.

After writing workshop, Andy and his classmates join Mrs. Olivia on the carpet again to continue their unit of study around a theme. Sometimes the theme is around a genre such as fables or fairy tales, while other times it is related to character education, social studies, or science. Andy remembers one literature unit that involved learning about characters. The whole class had chorally read a print book called *Chrysanthemum*. Andy and his classmates started talking about characters that were not very nice to one another and how Chrysanthemum was treated. The students put the characters in a "Hot

Seat" and started asking the characters questions. Then the class read one of the Katie Woo books found in myON. The character, Katie Woo, wasn't being very nice, so Andy and his classmates wanted to put her character in the "Hot Seat" and ask her questions about why she was behaving the way she was in the book. Andy, along with the whole class got so excited about Katie Woo that they all read the entire series of Katie Woo books during their Daily 5 rotation. Andy has noticed that oftentimes the print and digital books that he reads with his teacher during the unit of study are related to what he is learning during other times of the day such as Daily 5, social studies, and science. The unit of study time ends when it is time to go to lunch.

After lunch, Andy works on math, social studies or science, and ELD. Andy speaks Spanish at home, and has been learning English at school. Mrs. Olivia teaches in English, but also speaks Spanish, so Andy's Spanish-speaking parents are able to communicate with her.

When the dismissal bell rings, Andy heads over to the after school ASES classroom with several of his friends to have a snack and then begin working on his homework. The ASES teacher, Mrs. Sara, and her assistants, are available to help Andy and his friends with their homework. All of the second graders at Mighty Elementary School have the same homework (see Figure 7). Andy has to complete seven out of nine options shown on a grid. The choices include Sumdog and ST Math (digital math programs), myON, SmartyAnts, Raz-Kids, or Lexia (digital literacy programs), reading a print book, and Discovery Education (digital social studies and science resources). In addition to the digital options, Andy has to complete a writing prompt related to one of the books he has read. Andy sometimes needs help from one of the ASES teachers with

his homework. After completing his homework, Mrs. Sara requires all of the students to read an additional 20-minutes beyond their homework. She requires everyone to read a print book instead of myON. Once his homework is completed and he has read a print book for 20-minutes, Andy can spend the rest of the time on any of the digital programs.

Andy's father always picks him up from ASES on his way home from work at six o'clock. Since Andy's parents only speak Spanish, they are thankful that the ASES teachers help Andy with his English homework. When they arrive home, Andy's father checks to make sure that Andy's homework is complete. Since the homework is in English, if there is a concern, Andy's father will use Google translate on the iPad so that he can help with the concern, or he will let the ASES teacher know the following day so they can assist Andy.

After dinner, Andy enjoys reading print books or digital books on myON. He also enjoys using the family iPad to continue using the school programs such as ST Math and Lexia. Andy works independently on each of these programs, but must ask his father for permission first. His father sets a timer for 20-minutes. After 20-minutes, Andy either needs to stop using the iPad, or go onto another program. Andy's father thinks 20-minutes is sufficient, since that is the time amount listed for each program on the homework grid.

As part of his bedtime routine, Andy's parents used to read Spanish books to him or tell him classic stories in Spanish such as the *Three Little Pigs*, or *Little Red Riding Hood*. Now that he is able to read on his own, he reads to himself in his bed while his parents read Spanish books to his five-year-old brother. His favorite print book series that

he has in his room is Diary of a Wimpy Kid. (Vignette based on classroom teacher, ASES teacher, parent survey and interview responses, and myON usage data.)

Andy's daily classroom activities were representative of his teacher's belief that there was value in integrating both print and digital resources into a balanced cross-curricular literacy program, differentiating resources and instruction (Bennett et al., 2002), and in offering students choice when selecting text (Kantor, et al., 1992). When asked what her thoughts were about using myON in the classroom, Mrs. Olivia's response showed that she valued the integration of digital books into a variety of classroom literacy events:

> I like it. I think the kids enjoy it. They love it. They have such a wide range of genres that appeal to the kids, the students. I think it's also very versatile because you can use it for a lot of different things. I used it for assessments; I've used it for projects. I've used some of the books in there, a lot for writing activities, for enjoyment. It is a great teaching tool for their research even…I think it is amazing. I think it's wonderful. I think out of all the programs that my kids use and even though they are being used for different purposes, I think that's the one program I have never heard them complain about being on…myON is the one program where whenever I say everyday, "Take out your computers to log in to myON," I have never heard a complaint. Why, I think because they have the ability to roam free and look for things that interest them. It's not something being put on them that they're not necessarily interested in. They can always find something they are interested in. I think that says a lot. (Interview, Olivia, second-grade teacher)

The other two teachers who taught second-grade expressed similar views in favor of integrating myON into a variety of classroom activities. The second-grade teachers' belief that there was value in integrating both print and digital resources into a balanced cross-curricular literacy program, differentiating resources and instruction, and in offering students choice when selecting text, along with the information they provided their students' parents that aligned with these beliefs explains the high level of individual

student myON usage for second-grade students at Mighty Elementary School. The classroom contexts for these second-grade students were representative of a community of readers and writers engaged in meaningful literacy events, such as authentic response to literature (Taylor, et al., 2000; Taylor et al., 2003). The development of this type of community has been shown to increase student literacy proficiency (Mason & Allen, 1986).

Andy's home literacy activities showed that his parents typically checked and supported the completion of his homework when he arrived home from the after school program. In addition to his homework, Andy independently read a variety of text from both traditional print and myON, and he engaged in other digital programs from the school. Andy's daily bedtime routine included reading Spanish books and listening to classic children's stories in Spanish with his parents. Andy's father was very familiar with myON and encouraged Andy to read myON books in 20-minute increments (Interview, Andy's father, second-grade student).

A personalized version of the original conceptual model (see Figure 1) of language socialization theory (Ochs & Schieffelin, 2008) and cultural communities framework (Gutierrez & Rogoff, 2002; Rogoff, 2003) representing Andy, a student with high myON usage, is shown below (see Figure 10).

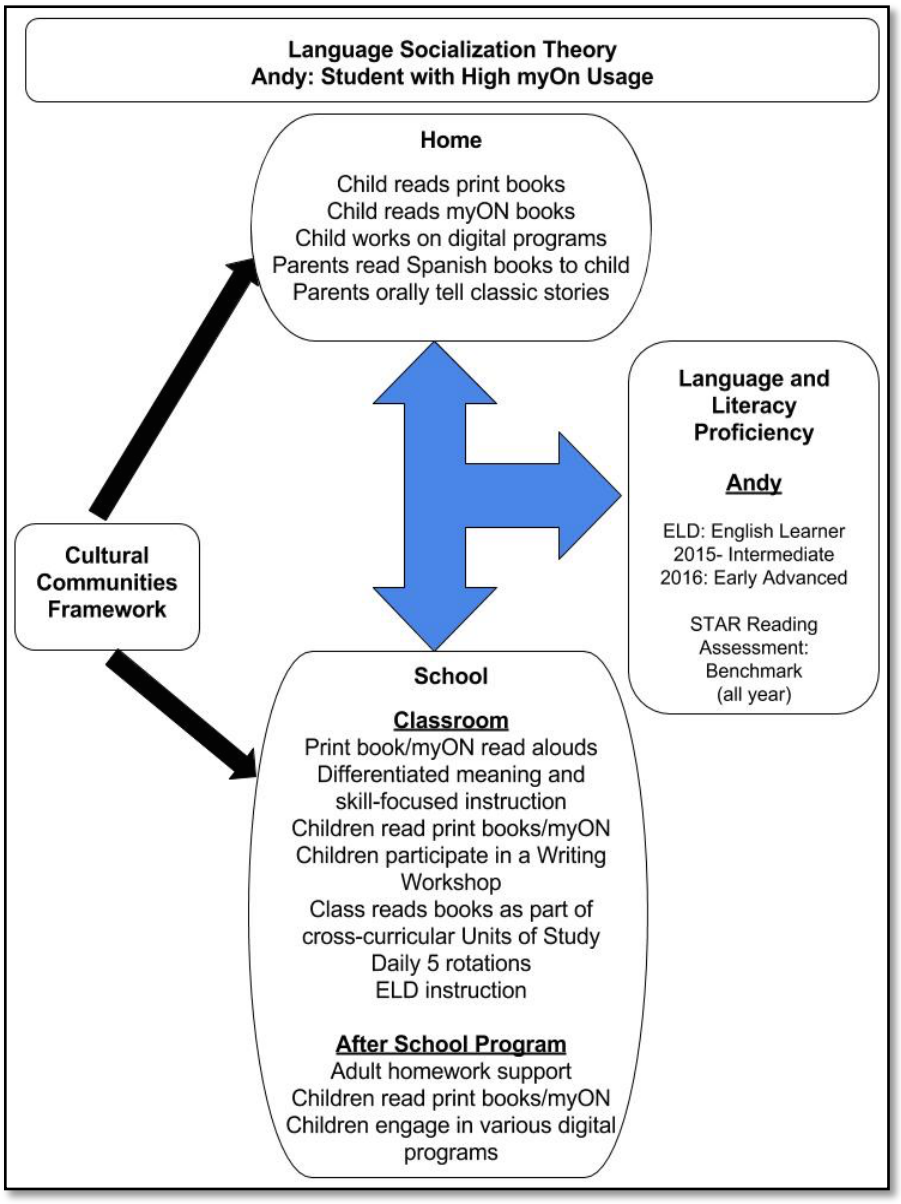


Figure 10. Conceptual model of language socialization theory and cultural communities framework for student with high myON usage.

As the conceptual model in Figure 10 shows, Andy, a student with high myON usage, was provided balanced opportunities during a variety of cross-curricular events to engage in skill and meaning-focused activities using both print and digital texts in the school and home contexts. Though Andy's parents only spoke Spanish, they have taken advantage of the bridge built between school and home through the ASES program. This

bridge was in alignment with the suggestions made by the National Literacy Panel (August & Shanahan, 2008) for ELL students and has supported Andy's language and literacy development (Vernon-Feagans et al., 2010). In addition, Andy's parents have incorporated the use of technology into their daily practices in order to support their son's literacy development. The school and home literacy opportunities resulted in this student, Andy, growing one English language proficiency level and maintaining a benchmark literacy proficiency level during the school year.

The three student vignettes provided a detailed glimpse into the daily practices of a TK/kindergarten student, a first-grade student, and a second-grade student. The variations in practice were representative of students with low, moderate, and high myON usage.

Summary: Student Variation in myON Usage

My reporting of overall student myON usage, the development of a Hierarchical Linear Model (HLM) with myON usage as the outcome, and the creation of three student level vignettes revealed that there were variations in myON usage with the classroom teacher having the largest effect on the number of hours spent reading from myON in both the school and home context. The higher the grade level of the student, the more likely students were to integrate a digital library into their routine literacy practices in both the school and home contexts. This finding was based on the use of myON, however, the kindergarten and first-grade teachers stated that their students also accessed the digital library, Raz-Kids. Raz-Kids was a digital library of decodable text, which simply required K-1 students to have decoding skills rather than making meaning of complex text as was required when reading books in myON.

Key Findings of Dissertation Study

Overall, the analysis of survey and interview responses have revealed that a strong digital infrastructure at Mighty Elementary have resulted in TK-2 teachers at Mighty Elementary primarily integrating text from myON into their meaning-focused activities as part of their balanced literacy program. In the home context, I found that the reading homework was the primary mediator between school and home, which resulted in home literacy practices that included both traditional and digital activities related to the homework. In addition to the common practices, individual student data revealed that there were variations in myON usage with the classroom teacher having the largest effect on the number of hours spent reading from myON, with the higher the grade level of the student, the more likely students were to integrate a digital library into their routine literacy practices in both the school and home contexts. I determined the findings through an analysis of individual student myON usage, the development of a Hierarchical Linear Model (HLM) with myON usage as the outcome, and the teacher, grade level, number of digital devices in the home, and socioeconomic status as the predictor variables. Finally, I presented an analysis of qualitative survey and interview data through student vignettes representative of the myON usage variation. The next chapter will explore the limitations and implications of this study.

Chapter 7: Implications and Conclusion

The purpose of this sequential mixed-methods study was to explore early elementary students' literacy experiences in the contexts of school and home as reported by teachers, school staff, and parents who used print books and the digital library myON as part of their repertoires of practice. This study was broadly based in language socialization theory (Ochs & Schieffelin, 2008) and operationalized through the cultural communities framework presented by Rogoff (2003), which together considered the role of the sociocultural contexts of school and home in supporting the language and literacy development of young children. In the previous three chapters I presented quantitative and qualitative evidence that answered the overarching question that asked in what ways myON was being integrated into the literacy and language repertoires of practice in the sociocultural contexts of home and school. The evidence also provided answers to the following sub-questions:

1. How are teachers and students integrating a digital library into their literacy and language practices in early elementary classrooms?
2. How are students and family members integrating a digital library into their literacy and language practices in their homes?
3. How is the use of a digital library in both the school and home working as a mediating influence on the interactions between the teachers, students, and families?
4. How does the infrastructure and support staff of a school impact the implementation of a digital library in the school and home?

Summary and Discussion of Findings

This study revealed findings that helped illuminate teachers' and parents' practices regarding literacy learning and the use of technology to support that learning. A description of traditional and digital literacy practices in both the school and home contexts can support the development of effective and culturally sensitive 21st century literacy practices that draw from the current experiences of children's families and educators.

Strong Digital School Infrastructure

Mighty Elementary had a digital infrastructure that provided a one to one digital device, a myON license, and Internet access for each teacher, school staff member, and student within the school context. Though the community liaison and other school staff put forth an effort to extend myON access to the home context, 15.9% of the student participants did not have Internet in their home at the time of the study, and were therefore unable to access the digital library within their home context. Several students participated in one of two after school programs, which provided additional access to myON within the school context outside of the regular school hours.

This study highlighted the need for a solid digital infrastructure in both the school and home contexts because a digital device with Internet access was needed for students to be able to read e-books on myON. One of the district rationales for having an individual student myON license was to provide every child with equitable access to a variety of reading resources. Although Mighty Elementary provided the necessary infrastructure within the school context for every student and teacher to have myON access, the fact that 15.9% of the student participants did not have Internet access in their

home presented an equity issue. In order for myON accessibility to be equitable, it needs to be available to all students in both the home and school contexts. Mighty Elementary could develop a plan to address the current "digital divide" (CDE, 2014) that exists in their school so that 100% of their students will have access to myON, along with other digital programs, at home.

Classroom Literacy Practices to Include Traditional and Digital Print

The TK-2 teachers at Mighty Elementary integrated both traditional print and digital resources into their classroom literacy practices as they provided code-focused and meaning-focused literacy events for their TK-2 students (Connor, 2010). The implementation of both code-focused and meaning-focused instruction was evidence that the TK-2 teachers provided a balanced literacy program for their students (Connor et al., 2004; Pressley & Allington, 2014). Teachers reported that print books were primarily used for meaning-focused instruction, while digital resources were primarily used for code-focused instruction. Since myON was a library, it was used similarly to print books during meaning-focused instruction (see Table 16).

Though the overall TK-2 literacy program was balanced between code-focused and meaning-focused instruction, the teacher reported frequency of using traditional print books (see Table 14) surpassed that of myON (see Table 16). Teachers reported using myON to support literacy instruction just a little more than 25% of the time, while the use of traditional print was between 50% and 75% of the time. This indicated that teachers used myON to a lesser degree than they used traditional print. Teacher interview responses indicated that many teachers were still getting comfortable with the idea of integrating e-books into their classroom practices (Koehler & Mishra, 2009; McKenney

& Voogt, 2009; Warschauer, Grant, Real, & Rousseau, 2004), and that several teachers were still growing in their abilities to navigate the myON platform. In order for students to engage in equitable opportunities regardless of their classroom setting, it is important that all teachers and support staff at Mighty Elementary work together to assure the effective use of myON in all classrooms that is developmentally appropriate for each grade span.

Homework Used as a Mediating Tool to Include Traditional and Digital Reading

The TK-2 teachers at Mighty Elementary used traditional and digital reading homework as a mediator between school and home to communicate ways that parents could support their children's literacy development. The teachers reported sending home traditional print books slightly more than myON (see Table 18). Teachers also reported that they communicated slightly more with parents about how to support their children using traditional print than with myON (see Table 18). The after school program, ASES, also provided support for students in completing reading homework and in communicating with parents about their children's progress as they picked their children up each evening (August & Shanahan, 2008).

Since homework was used by the TK-2 teachers at Mighty Elementary as an opportunity to involve parents in their children's literacy development (Bennett et al., 2002; de Jong & Leseman, 2001; Fantuzzo et al., 2004; Jeynes, 2003; McWayne et al., 2004), it was an ideal platform to introduce parents to myON. All of the teachers included reading as part, if not all, of their homework and encouraged parent participation with the homework. All of the first-grade and second-grade teachers reported that myON was one of the home reading options for students, while the

kindergarten teachers reported that Raz-Kids, a digital library of decodable books, was the program they encouraged for home reading. The fact that some of the kindergarten parents did not even know about myON presented a missed opportunity for those students to have accessed thousands of books at home that may have also supported their literacy development. In addition, the kindergarten teachers' preference for Raz-Kids showed that they encouraged code-focused over meaning-focused activities for their students because they felt that it was developmentally appropriate.

Home Literacy Practices Connected to Homework

The home literacy practices of the TK-2 students at Mighty Elementary included a variety of both traditional and digital activities. The students' parents participated in traditional activities and to a lesser degree technology activities to support their children's literacy development (see Tables 19 and 20). Though the parents reported a variety of literacy routines, which was similar to the findings of previous studies (Cairney & Ashton, 2002; Heath, 1982, 1983; Teale, 1986), all parents reported commonalities in reading, engagement in conversations, and supporting decoding as part of their routine literacy practices in the home.

During the interviews, parents always discussed the homework that came home from their child's teacher as part of the home literacy practices. All parents were aware of the teachers' desire for their child to use technology as part of the homework. The parents of children in first-grade and second-grade were familiar with myON because it was part of the homework. These parents had positive comments about their children's experiences with myON. Some of the parents of kindergarten students were familiar with myON because they had older siblings in the home; however, they were more familiar

with Raz-Kids because that was what the kindergarten teachers encouraged for homework. The close alignment between what the parents reported regarding routine home literacy practices and what the teachers sent home for homework revealed how much the parents valued and supported what their child's teacher asked them to do to support their child's literacy development in the home context.

Student Variation in myON Usage

The myON usage hours varied across student usage in both the school and home contexts (see Tables 24 and 25), which was in part explained by a nested structure in which the classroom teacher had the largest effect followed by grade (see Table 32). The higher the grade level of the student, the more likely students were to integrate a digital library into their routine literacy practices in both the school and home contexts. A one-way ANOVA analysis showed a statistically significant difference of myON usage between each of the grade levels (see Table 23). This variance was also confirmed by an HLM analysis that indicated the largest effect on myON usage was the teacher grouping, which accounted for 65.6% of the total variance. The strongest predictor of the teacher level variance was grade, accounting for 69% of the teacher level variance. In addition, the HLM analysis of the student level variables, indicated that low SES and number of technology devices in the home, also had a significant effect on myON usage, accounting for 5.4% of the student level variance, and 1.6% of the total variance.

The previous findings regarding classroom practices, homework, and home practices can be explained by the finding that the classroom teacher had the largest effect followed by grade on student myON usage because the teachers' literacy practices significantly influenced what activities students engaged in while in school and at home.

In the case of the kindergarten teachers, code-focused instruction resulted in their classroom practices only including an occasional myON title for a whole group read aloud and their homework recommending the use of Raz-Kids. In the case of the first-grade teachers, code-focused instruction early in the school year resulted in the use of Raz-Kids for independent reading as well as for homework. In early March, as the students became more proficient in reading and technology navigation, the first-grade teachers transitioned their code-focused activities to more meaning-focused activities that integrated myON into daily activities including the students' homework. In the case of the second-grade teachers, meaning-focused instruction and student choice resulted in myON being integrated into all classroom activities as well as the homework for the entire school year. The influence of the teacher regarding literacy practices and the use of myON directly affected the ways in which myON was integrated into the literacy and language repertoires of practice in the sociocultural contexts of home and school. This is an equity issue because regardless of their teachers' values and beliefs, every student should be provided access to the same opportunities aligned to the Common Core standards and state framework (CDE, 2010; CDE, 2014; ESSA, 2015). Since Mighty Elementary has provided the myON resource as part of their Common Core curriculum, all students should be afforded access to that curriculum in both the school and home context.

Screen Time Concerns

In addition to answering the original research questions, my analysis of interview responses revealed concerns about students engaging in too much screen time. This concern emerged because of the multiple digital programs available to students at Mighty

Elementary. The primary digital programs included ST Math, Lexia, Smarty Ants, and myON. The participants were clear that they did not have a concern about myON in and of itself, but rather the cumulative effect of students engaging in all of the programs. This concern is in alignment with The National Association for the Education of Young Children's joint position statement on the appropriate use of technology in early childhood programs for children through age eight (NAEYC, 2012) and the AAP's (2010) recommended maximum screen time of two hours per day for children.

The screen time issue expressed by participants from both the school and home contexts was a valid concern. Individual students could accumulate screen time hours by using multiple programs in multiple contexts with little to no human interaction. Students could go over the recommended two hours because the multiple contexts in which they were nested allowed access to various technology programs throughout the day. The adults who facilitated the access were not aware of how much time students were spending on digital programs in the other contexts, nor were they aware of how the programs were being used. One student could access various programs before school at home or in AM/PM, in their own classroom, in another teacher's classroom when rotating for subjects such as ELD, in the after school program, and at home in the evening. One child could have five or more adults facilitating their learning throughout the day, which could have resulted in excessive screen time because each adult was unaware of the amount or type of digital usage that occurred for each child in the various contexts (AAP, 2010; NAEYC, 2012).

Key Findings

Impact of Classroom Teacher

The teachers at Mighty Elementary who provided rich literacy experiences for their students to include choice, differentiation, interaction, and the integration of a variety of resources such as myON ultimately created a culture of literacy (Kantor, Miller, & Fernie, 1992; Neuman & Roskos, 1997). The second grade teachers completely embraced these cultural practices, which resulted in the integration of myON into their students' daily repertoires. The first grade teachers began the year with limited use of myON, but transitioned into providing more student choice that integrated myON into their daily practices by March of the school year. The kindergarten teachers only used myON in the limited practice of an occasional whole group read aloud. The kindergarten teachers wanted to control what the students read in all contexts, so they did not provide opportunities for individual use in the classroom, nor did they promote the use of myON at home.

Students at Mighty Elementary integrated myON into their daily literacy practices if the teacher provided opportunities for myON integration. Teacher opportunity translated into home opportunity because the parents integrated homework into their child's daily practices. First and second grade teachers included myON in their homework; therefore first and second-grade parents included myON in their daily practices with their children. Kindergarten teachers did not include myON in their homework; therefore the kindergarten parents did not include myON in their daily practices, but instead included Raz-Kids as that was the preferred resource of the kindergarten teachers. These findings are in alignment with previous studies that have

shown that parents played a major role in supporting their children's literacy development (Jeynes, 2003).

One of the district initiatives was to develop a P3 framework that provided continuous learning pathways that aligned curriculum, teacher pedagogy, and child practices from preschool through the early elementary grade through a personalized program. The use of myON is an example of a resource that could provide continuous personalized learning in developmentally appropriate ways for all students beginning in preschool and continuing through the elementary grades. The fact that the opportunity to use myON is limited to a teacher and grade presents an equity issue because all students should be afforded the same rich experiences through a continuous learning pathway regardless of the classroom they are assigned or grade they are in.

Equity of Resources

In addition to the concern regarding equity of opportunity related to classroom teachers' practices, there was also an issue of equity of opportunity related to access to books. In order for students to become literate, they must have access to a plethora of books. Classroom libraries vary in the number and variety of books available. The district in which this study took place purchased the myON licenses in order to provide equitable access to books for all students across all classrooms. Since the myON library provided close to 10,000 digital titles, it immediately allowed students access to more books than were previously available through traditional print in students' classroom libraries. Again, the espoused opportunity of accessibility translated into enacted access only in those classrooms in which the teacher integrated myON into their daily practices.

In addition to concerns regarding equity of resources in the classroom context, this study revealed digital access concerns in the home setting for several of the students. Since 15.9% of the students did not have access to at least one digital device with Internet in their home that meant that those students were not able to access myON at home. The students who tend to have less access to computers and the Internet are often low SES students who are learning English as a second language. This finding showed that Mighty Elementary has a "digital divide" that must be addressed (CDE, 2014).

Low SES students are already less likely to engage in rich literacy experiences in their home context often due to less literacy resources available in the home (Burchinal & Forestieri, 2010). This means that the students who could most benefit from additional books in the home through myON are the same students who were most likely to be deprived access because they did not have the digital infrastructure necessary to support the use of myON. This is an equity concern that not only fails to close the "21st century Great Divide" (McCarty, 2004), but quite possibly could widen the achievement gap because this lack of digital access disenfranchises the most needy students while adding to the repertoires of those students who already have access to literacy resources.

Effective Screen Time Practices

This study revealed a concern from parents and teachers regarding too much screen time for the students of Mighty Elementary. This concern expands across the district, the state, and the nation, as technology becomes more prevalent in children's daily routines. The NAEYC and the Fred Rogers Center for Early Learning and Children's Media at Saint Vincent College joint position statement on the use of technology in early childhood programs from birth through age eight (2012) clearly

recommends that technology be used in interactive developmentally appropriate ways to enhance language and literacy goals in classrooms without replacing human interactions. The AAP (2016) recommends creating a technology plan to assure our children are using technology in effective ways without replacing other healthy activities. The recommendations from the NAEYC and AAP are a good start for making sure teachers and parents are facilitating the appropriate use of screen time for young children; however, the current practices in regards to children's technology use have surpassed what the research has been able to keep up with.

One finding of the research is clear in that children's technology practices should always be interactive (Korat & Or, 2010; Korat, Segal-Drori, & Klien, 2009; Korat, Shamir, & Heibal, 2013; Shamir et al., 2008). The analysis of the data from this study revealed that interactive use of technology is not always practiced in the classrooms or homes of the Mighty Elementary students. The concern that teachers and parents are using technology as a digital pacifier is in direct violation of the NAEYC recommendation (NAEYC, 2012). Though several examples were provided in which teachers and parents integrated myON into interactive literacy activities, another common practice was to have students listen to myON stories with headphones on in isolation. It is a concern that myON is often used in isolation with no interactive component. Such practices can be enhanced by allowing students to read interactively with a partner or small group, have conversations while reading, and culminate the reading with a writing or drawing activity. These types of interactive activities can be easily integrated into the daily practices of children when designed by teachers and parents who have been provided professional development and training on this topic.

The district in which this study took place has purchased multiple technology devices and digital programs in support of a personalized learning path for students through the creation of a blended learning environment. Unfortunately, the purchase of the devices and programs did not always include the professional development for the teachers on the effective use of technology in the classroom. In addition, the purchase of the licenses that can be used at home did not include parent education on the effective use of technology in the home. If this district is going to continue on the path of personalization through blended learning, then it is imperative that they also develop a plan to support both teachers and parents in effective implementation. Such a plan for teacher professional development and parent training will guide the appropriate use of technology for our youngest learners.

Implications for Mighty Elementary School

The high percent of low SES (62%) students at Mighty Elementary, coupled with the demands of teaching literacy with the integration of 21st century skills and technology, presented a challenging task for teacher and school support staff to close the "21st century Great Divide" (McCarty, 2004) and "digital divide" (CDE, 2014) for their students. Indeed, every school context participant in this study reported a multitude of literacy practices intended to assure literacy proficiency for all TK-2 students at Mighty Elementary. The same participants found value in building a bridge between the school and home contexts with the intent of engaging parents in their children's literacy development (August & Shanahan, 2008). Therefore, the results of this study will ideally be shared with the Mighty Elementary teachers and support staff so that all stakeholders may be informed about ways that they can support the development of effective and

culturally sensitive 21st century literacy practices. It is my hope that from this study, four ongoing practices will emerge: a concerted effort to assure that all students have access to a technology device and Internet in both the school and home contexts; the continued implementation of a balanced literacy program to also include the judicious use of myON across all grade levels and classrooms; partnering with families in ways that support student literacy proficiency through a balanced use of traditional print and myON; and a monitoring system to assure students engage in appropriate use of screen time. Implementation of such practices would assure equitable opportunities for all students at Mighty Elementary.

Structures Already in Place with Recommended Next Steps

Any changes that occur within Mighty Elementary will be built on a foundation of a solid infrastructure and a variety of promising practices already in place.

In regards to infrastructure, a solid foundation was already in place in the school context. Every teacher, student, and support staff member had a digital device, access to Internet, and a myON license. In addition, the support staff and teachers put forth a concerted effort to provide similar access and support for each child in the home context. The principal, teachers, and community liaison have offered numerous parent sessions, and have communicated with parents about community resources such as San Diego Computers to Kids and Cox Connect with the intent of providing equitable technology access for every student in the home context. The offering of parent information and technology sessions was a great structure for inviting families to come to school in order to successfully provide digital access and support for their children at home. Unfortunately, as this study revealed, there was still a percentage of families that had not

embraced these opportunities and had yet to cross the family support bridge that Mighty Elementary had built (August & Shanahan, 2008). A recommended next step would be to expand the role of the community liaison and have her directly contact families who have not yet crossed the bridge. She could start by conducting a survey with every family to determine who has a device and Internet available for their child in the home context. She could then reach out directly to those families who indicate that their child does not have access, as well as reaching out to those families who do not respond to the survey. This work could be done in partnership with the classroom and after schoolteachers. By directly reaching out to families, the school can connect parents with the community resources available so that every child will have equitable access to technology in their home.

In regards to classroom practices, the TK-2 teachers described a balanced literacy program to include code-focused and meaning-focused instruction with the use of traditional print books and to varying degrees the use of myON. In consideration of the Foundational Reading standards and the Reading standards required by Common Core (CDE, 2010; CDE, 2014), it is a celebration that the Mighty Elementary teachers have been able to create daily routines that included a balance of activities that taught all ELA standards. Teachers reported that the majority of their classroom routines included the use of traditional print. The traditional print books available in classroom libraries vary, with some classrooms offering large quantities of books across a multitude of genres and reading levels, while other classrooms have small quantities with limited genres and reading levels. Therefore, we can conclude that students did not have equitable access to reading resources across classrooms. This claim was substantiated in one of the teacher

interviews, “I was new to the district two years ago so this ended my second year, so I don't have a lot of the thematics for kindergarten. Where the other teachers have the books, I don't,” (Interview, Tess, kindergarten teacher). The opportunity to utilize myON during whole group, small group, and individual literacy events expanded the classroom text availability to over 10,000 titles across all genres and reading levels.

This study has revealed that myON availability alone did not translate into equitable access for all students because the classroom teacher controlled the use of the library. This study revealed that the teachers varied in the ways that they controlled student myON usage. The variations in practice may be related to the teacher reports of varying degrees of efficacy with integrating myON. For some, it was the logistical challenge of navigating the library, for others it was the challenge of allowing students to navigate the library. Research has shown that technology integration is challenging for teachers (Koehler & Mishra, 2009; McKenney & Voogt, 2009; Warschauer, Grant, Real, & Rousseau, 2004), therefore the recommended next step would be for the principal of Mighty Elementary to determine the level of efficacy teachers report regarding myON integration. The principal can then develop a teacher support system to include continued peer collaboration, professional development, and coaching for the teachers with low myON and technology integration efficacy. Though this is a challenging next step, it is the step most likely to show results because teaching practices are malleable.

In regards to homework and home literacy practices, it is clear that Mighty Elementary teachers and support staff had a strong foundation in place for using the homework as an opportunity to engage parents in supporting their children’s literacy development. Every teacher included reading as part, if not all, of the daily homework.

Teachers provided initial information about the importance of daily reading in the home context at their Back to School Night presentations, directly in the homework, through phone calls, email communications, parent conferences, and through individual parent meetings when applicable. The school offered ASES, an after school program, for low SES students requiring additional homework support. Not only did ASES provide homework support, it also provided a daily opportunity for the school support staff to communicate directly with parents as they picked their children up each evening. Parents reported a variety of home literacy practices with many of those practices relating directly to the homework sent from the teacher. The practice of reading with their child was reported by all parents primarily with traditional books, and to a lesser degree with myON. In addition, parents reported that their children primarily engaged in myON independently rather than as a shared parent/child reading experience.

This study has revealed that TK-2 Mighty Elementary parents valued supporting their children's literacy development through reading and closely followed the recommendations of the classroom teacher as outlined in their children's homework. Research has shown a significant positive effect on language and literacy measures when parents read books to their children (Bus et al., 1995; Deckner et al., 2006; Lonigan & Whitehurst, 1998; Manz et al., 2010; Mol et al., 2008; Raikes et al., 2006, Sonnenschein & Munsterman, 2002), therefore a recommended next step would be for teachers to directly communicate ways in which parents can expand their repertoires of practice that currently include shared reading of traditional books to ways that parents can engage their children in shared reading experiences with myON. The parents at Mighty Elementary reported a desire to support whatever practices their children's teachers

recommended, therefore the recommendation of using myON for shared reading would expand the availability of text in the home by another 10,000 titles. This is especially important for those low SES families with limited resources, as previous studies have revealed that limited resources in low SES homes have been correlated to low early literacy development (Burchinal & Forestieri, 2010; Rodriguez et al., 2009; Teale, 1986). An expansion of reading resources by accessing a digital library, infused with the practice of shared reading in the home context could possibly lead to increased literacy proficiency for the students at Mighty Elementary.

The final recommendation for Mighty Elementary is in regards to the concern that students may have been engaging in too much screen time. Since the students received instruction, support, and access to digital programs across a variety of settings with various adults, it is recommended that a system be developed so that the cumulative amount and type of time spent engaging in digital technology be monitored for every student. This may be a logistical challenge; however, the recommended maximum of two hours of interactive screen time (AAP, 2010) can only be followed if the adults keep track of the amount and type of screen time for each student. TK-2 students are not yet proficient in keeping track of elapsed time; therefore the adults will need to communicate with each other to assure that the school is adhering to screen time recommendations. The system could be similar to a reading log where children have a digital program log that tracks their minutes and the type of activity. The log could be brought to other teachers' classrooms, the after school program, and home, so that all of the adults can monitor the cumulative screen time activities.

Implications for the Broader Educational Community

The results of this study offer implications for the broader educational community in regards to closing the "21st century Great Divide" (McCarty, 2004) and the "digital divide" (CDE, 2014) by supporting the development of effective and culturally sensitive 21st century literacy practices. The increased academic expectations set by the rigorous Common Core standards (California Department of Education [CDE], 2010) require children to apply their literacy skills across content areas to include the integration of 21st century skills (Voogt & Roblin, 2010). Teachers, students, and families can benefit from the recommendations proposed in this section as stakeholders attempt to navigate the challenging educational landscape of literacy learning with the integration of 21st century skills and technology.

This study has revealed a digital library as one innovative technology-based instructional resource that has been embraced to varying degrees by teachers, support staff, and parents in one elementary setting. The digital library, myON, offered a plethora of complex text across all genres and reading levels. Other digital libraries exist, and would serve the same purpose of providing a variety of complex text to children in both the school and home contexts. Therefore, one implication for the broader educational community is that all children deserve to have access to a multitude of reading resources in both the school and home contexts. A digital library levels the playing field by providing the same access for everyone. Equitable digital access requires a digital infrastructure to include one to one digital devices, Internet access, and library access for all stakeholders in all settings. Since this study has revealed that availability does not necessarily translate into access, it is also necessary to provide professional development

for all teachers on the most effective use of a digital library in both the school and home contexts. Schools then need to develop a structure to communicate with families about the appropriate use of the library in the home. Finally, stakeholders must monitor the amount and type of screen time in both the school and home settings through adult communication regarding the total number of minutes and types of activities students are engaged with a maximum of two hours of interactive screen time per day (NAEYC, 2012; AAP, 2010).

Implications for Policy and Practice

If all children deserve to have access to a multitude of reading resources in both the school and home contexts, and a digital library levels the playing field by providing the same access for everyone, then there should be policies and practices in place that support the use of a digital library. Policies should be created that provide funding to support a digital infrastructure to include one to one digital devices, Internet access, and library access for all stakeholders in all settings. Policies should be created that provide funding and research for professional development that supports the most effective use of the library in both the school and home contexts. Policies should be created that provide funding for a community liaison network at all schools. The community liaison staff should develop an effective family communication structure that disseminates information to families about appropriate strategies for supporting their children's literacy development with the use of the digital library in the home.

Given the rapidly changing technology in society, the amount and types of screen time young children engage in is continually expanding. Though the NAEYC joint position statement on the use of technology in early childhood programs from birth

through age eight explicitly recommends interactive quality screen time (2012), and the AAP recommends limiting that quality screen time to two hours a day (2010), the specific recommendations for classroom and home practices should be revisited regularly to assure a match with whatever technology is currently available in children's classrooms and homes. The creation of policies that support ongoing funding would allow the NAEYC and AAP to regularly monitor and update the recommended classroom and home practices. In addition, the policy should create a structure for communicating the updated recommendations to all stakeholders. An awareness of the recommendations would support best teaching and parenting practices for children in both the school and home settings.

Implications for Theory

The results of this study offer implications to the language socialization theory (Ochs & Schieffelin, 2008) by considering the integral role digital technology is playing in the daily repertoires of practice in the sociocultural contexts of home and school. Since the cultural communities framework (Gutierrez & Rogoff, 2002; Rogoff, 2003) suggests that culture is defined by shared practices and that these practices are what shape and mutually influence children's language and literacy development (Garrett & Baquedano-Lopez, 2002) it is necessary to consider the role of technology in this digitally driven modern world. If a close alignment between the values, beliefs, and practices of parents in the home and teachers in the school result in increased literacy and language proficiency for students (Bennett, Weigel, & Martin, 2002; de Jong & Leseman, 2001; Pinto, Pessanha, & Aguiar, 2013), then an alignment between digital access and usage in both contexts may also impact proficiency.

The modern day phenomenon of technology is influencing children's development in real ways. Digital technology access and usage are redefining language and literacy development in modern society. Since the language socialization process is fluid with potential for change and innovation (Garrett & Baquedano-Lopez, 2002) and is espoused to be a dynamic and interactive process (Schecter & Bayley, 2004), the integration of digital technology access and usage should be included in the original conceptual model (see Figure 11).

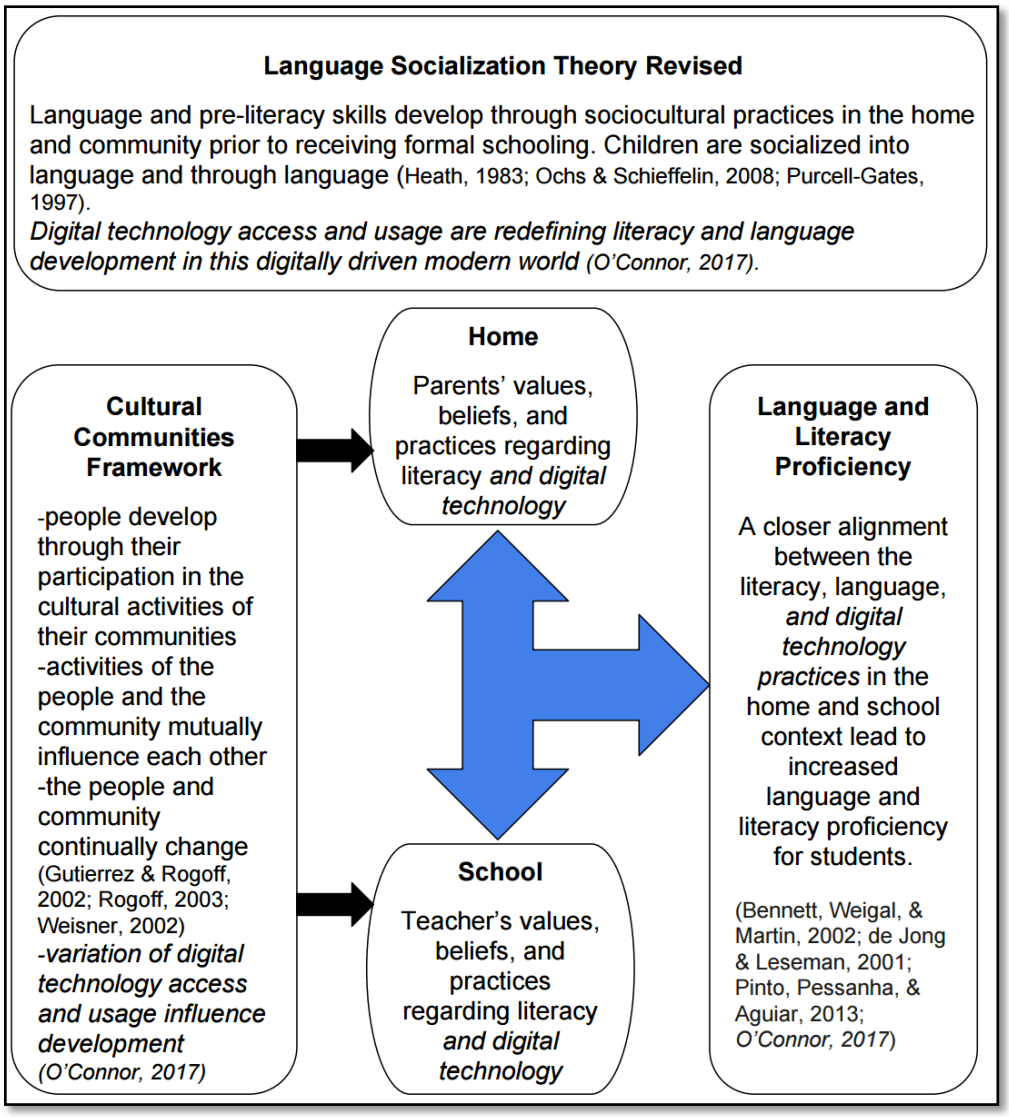


Figure 11. Revised conceptual model for language socialization theory and cultural communities framework with revisions shown in italics.

The revised theory and framework include digital technology access and usage as an influence on the development of the child. When children enter formal school they either transition smoothly because the daily repertoires of language, literacy, and technology practices in the home match the school, or they struggle to varying degrees due to the discontinuities between the two contexts. The results of this study revealed variations in the way that digital technology was being integrated into the daily practices

in both the school and home contexts. In some cases, these variations resulted in inequitable access and participation. The inclusion of digital technology in the aforementioned theory and framework, or the development of a new literacy and language theory to include digital technology practices can be used to reconceptualize literacy education to better support the literacy and language development of our youngest learners.

Limitations

This study had three primary limitations. The first limitation was the small size of the study. This study was conducted at one elementary school in grades TK-2 with parents, teachers, and support staff of 208 students. Due to the small size and the limitation of one setting, the results cannot be generalized to any other grades within the school nor can they be generalized to any other schools. Since I relied on volunteers to act as survey respondents and interview participants, the second limitation of this study was that the participants might not have represented a cross-sectional sample of the broader school or district population of which this study took place. The third and final limitation was my positionality as a district administrator in the role of Early Literacy Coordinator in the Curriculum and Instruction department in the school district where this study took place. My positionality as an insider may have influenced teachers and school staff survey and interview responses. As a white English speaking female researcher in her mid-forties working as a school district administrator, parents may have perceived me as an outsider which may have influenced their responses to survey and interview questions.

Though the findings of this study were limited to one setting with participant volunteers, they will provide an important glimpse into the daily literacy practices of teachers, students, and parents. In an attempt to mitigate the limitations regarding my positionality, I conducted member checks after initial findings were developed and collaborated with my dissertation chair, professors, and student members of my doctoral cohort to review excerpts of data as a way to cross-check the analysis. During the write-up of the study, I was transparent about my positionality and ways in which it may have affected the results. Despite the limitations in generalizability, this study has important implications for educational research, policy, and practice. Within the district in which this study is situated, the results could be used to inform the future use of digital technology regarding district purchases, teacher professional development, infrastructure refinement, and family communication. Though my positionality within the study is a limitation, my position allowed me access to this participant group and from this point forward I will use my role as a district administrator and my increased knowledge of the topics gained through conducting this study, to share understandings with other interested parties as well as initiate discussions regarding these topics when the opportunity presents itself.

In general terms, this study will begin the discussion around the integration of digital libraries with the sociocultural practices found in the contexts of school and home.

Recommendations for Future Research

Since this study was limited to grades TK-2 at one elementary setting, I recommend replicating the study in grades 3-5 at the same school. It would be interesting to see if the HLM results showing the teacher as having the most significant effect would

change as students become more independent in higher grades. In addition, the same study could be replicated across TK-5 at other schools across the district and other schools that use myON across the country. It would be interesting to see how the descriptive findings vary when other contextual factors such as the digital infrastructure and support systems change.

This study served to provide a description of the repertoires of practice that were in place within one elementary setting. Now that the repertoires have been revealed from nine classroom settings, future research is recommended to determine the effect of myON usage on literacy development. This would require a controlled study in which the control group does not use myON and the experimental group does use myON. The effect could be measured using multiple early literacy proficiency assessments.

This study revealed that kindergarten teachers and at least in the beginning of the school year, first-grade teachers, preferred the individual student use of Raz-Kids to myON. Since teachers and parents reported that students preferred myON to Raz-Kids, future research is recommended to determine the effect of myON usage on student reading motivation (Turner, 1995). Through observation, and student survey and interview responses, the researcher could compare the effects of student motivation when kindergarten and first-grade students read from both Raz-Kids and myON. In addition, future research is recommended to compare the effect of myON to Raz-Kids usage on literacy development. This would require a controlled study in which the control group reads traditional books, one experimental group uses myON, and one experimental group uses Raz-Kids. The effect could be measured using multiple early literacy proficiency assessments.

This study revealed a concern about the physiological effects of screen time on children. Future research should be conducted that explicitly compares the effects of using print books to the use of myON. This could be conducted in an after school setting where students are provided time to read as part of their homework. This could be a controlled study in which half of the participants read for a specific amount of time using traditional print books and half of the students read for the same amount of time on myON. The study could also look at the differences between the use of myON with different devices such as a computer, iPad, and Chromebook. Teachers could then follow-up each reading session with student survey questions regarding eye fatigue, headaches, neck pain, etc. The results could be compared to see if there is a correlation between any physiological symptoms and the use of myON. In addition, neuroscientists could conduct similar studies in which student brainwaves are studied to compare reading traditional print books to myON.

This study revealed technology usage in both the school and home contexts with educators and parents currently grappling with the role of technology in their students' daily practices. Future research should look at the role of technology in the broader sociocultural contexts of education. Larger sociocultural studies could reveal best practices in technology integration so that teachers and caregivers can make the most informed decisions in regards to the role of technology in their children's lives.

Final Thoughts

The support staff, teachers, and parents of the 208 Mighty Elementary school students who participated in this study provided insights into the early elementary students' literacy experiences in the contexts of school and home. The ways in which

print books and the digital library myON were integrated into their repertoires of practice revealed a great deal about the participants' literacy practices and the use of technology to support literacy development. All participants aspired to support literacy development for all children, but many did not recognize that the routine literacy practices they facilitated in their schools, classrooms, and homes directly supported or inhibited opportunities for their children to become literate.

Equitable access to books is required for teachers to teach literacy and for students to become literate. In the case of a digital library, the library was espoused to be available to all students in both the school and home contexts. In reality, the library was accessible to those students whose teachers found it valuable enough to include it in their daily repertoires of practice which then translated into making it available to students in the home context as well. The same teachers who embraced the integration of myON made a concerted effort to communicate recommended strategies to support reading and the use of myON to parents for their students at home. These same teachers took the time to discuss with parents during parent conferences the necessity of having a technology device and Internet in their home. In addition, they handed the parents the flier regarding the community resources available to support low SES families with getting a device and Internet. Finally, these same teachers included myON as part of their homework and followed through with parents when the students were not reading from myON.

This study ends with a note of hope that the combined efforts of the adults participating in the sociocultural contexts of the school and home in all educational settings will continue to strive to support students' literacy development. These efforts will result in increased literacy development when all students are provided equitable

access to rich reading materials. Together, equitable access to rich reading materials and increased literacy development will support the ultimate goal of TK-12 education, which is to successfully prepare all students for college and career.

References

A complete digital literacy program [Information on a page]. (2013). Retrieved on 12/16/15 from http://thefutureinreading.myon.com/overview/complete-literacy-program

AAP (American Academy of Pediatrics). 2010. "Policy Statement—Media Education." Pediatrics 126 (5): 1012–17. doi/10.1542/peds.2010-1636

Achieve3000 [Information on a page]. (2017). Retrieved on 5/7/17 from http://www.achieve3000.com/learning-solutions/foundational-literacy/

Act-NCLB. Conference report to accompany HR Rep no. 107=334. (2001).

Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.

Aguinis, H., Gottfredson, R. K., & Culpepper, S. A. (2013). Best-practice recommendations for estimating cross-level interaction effects using multilevel modeling. *Journal of Management*, *39*(6), 1490-1528. doi: 10.1177/0149206313478188

Anderson, R. C., Hiebert, E. H., Scott, J. A., & Wilkinson, I. G., (1985). *Becoming a nation of readers: The report of the commission on reading.* Retrieved on April 26, 2015 from http://eric.ed.gov/?id=ED253865

Auerbach, E. R. (1989). Toward a social-contextual approach to family literacy. *Harvard Educational Review*, *59*(2), 165–182. doi: 10.17763/haer.59.2.h237313641283156

August, D. & Shanahan, T. (2008). *Developing reading and writing in second-language learners*: *Lessons from the report of National Literacy Panel on language-minority children and youth.* New York, NY: Routledge.

Baquedano-Lopez, P., Alexander, R. A., & Hernandez, S. J. (2013). Equity issues in parental and community involvement in schools: What teacher educators need to know. *Review of Research in Education*, *37*(1), 149–182. doi: 10.3102/0091732X12459718

Baquedano‐López, P., & Kattan, S. (2008). Language socialization in schools. In N. H. Hornberger (Ed.), *Encyclopedia of language and education* (pp. 2729–2741). New York, NY: Springer. Retrieved on 6/7/15 from http://link.springer.com/referenceworkentry/10.1007/978-0-387-30424-3_204

Bennett, K. K., Weigel, D. J., & Martin, S. S. (2002). Children's acquisition of early literacy skills: Examining family contributions. *Early Childhood Research Quarterly*, *17*(3), 295–317. doi: 10.1016/S0885-2006(02)00166-7

Biemiller, A. (1999). Language and reading success (Vol. 5). Cambridge, MA: Brookline Books.

Blair, C., Protzko, J., & Ursache, A. (2010). Self-regulation and early literacy. In S. B. Neuman & D. K. Dickinson (Series Eds.), *Handbook of Early Literacy Research, Vol. 3* (pp. 20-35).

Bond, G. L., & Dykstra, R. (1967). The cooperative research program in first-grade reading instruction. *Reading Research Quarterly*, *2*(4), (5-142). doi: 10.2307/746948

Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods.* Newbury Park, CA: Sage Publications.

Burchinal, M., & Forestieri, N. (2010). Development of early literacy: Evidence from major U.S. longitudinal studies. In S. B. Neuman & D. K. Dickinson (Series Eds.), *Handbook of Early Literacy Research, Vol. 3* (pp. 85-96).

Bus, A. G., IJzendoorn, M. H. van, & Pellegrini, A. D. (1995). Joint book reading makes for success in learning to read: A meta-analysis on intergenerational transmission of literacy. *Review of Educational Research*, *65*(1), (1–21). doi: 10.3102/00346543065001001

Cairney, T., & Ashton, J. (2002). Three families, multiple discourses: Parental roles, constructions of literacy and diversity of pedagogic practice. *Linguistics and Education*, *13*(3), 303–345. doi: 10.1016/S0898-5898(02)00089-X

California Department of Education. (2010). *Common Core state standards*. Retrieved on October 6, 2013 from http://www.cde.ca.gov/re/cc/

California Department of Education. (2015). Dataquest. Retrieved on August 28, 2016 from http://data1.cde.ca.gov/dataquest/

California Department of Education. (2014). *English language arts/English language development framework*. Retrieved on February 16, 2015 from http://www.cde.ca.gov/ci/rl/cf/elaeldfrmwrksbeadopted.asp

Cohen, J. (1977). *Statistical power analysis for the behavioral sciences* (revised ed.). New York, NY: Academic Press.

Connor, C. M. (2010). Child characteristics- instruction interactions: Implications for students' literacy skills development in the early grades. In S. B. Neuman & D. K. Dickinson (Series Eds.), *Handbook of Early Literacy Research, Vol. 3* (pp. 256-275).

Connor, C. M., Morrison, F. J., & Katch, L. E. (2004). Beyond the reading wars: Exploring the effect of child-instruction interactions on growth in early reading. *Scientific Studies of Reading*, 8(4), 305–336. doi: 10.1207/s1532799xssr0804_1

de Jong, P. F., & Leseman, P. P. M. (2001). Lasting effects of home literacy on reading achievement in school. *Journal of School Psychology*, *39*(5), 389–414. doi: 10.1016/S0022-4405(01)00080-2

Deckner, D. F., Adamson, L. B., & Bakeman, R. (2006). Child and maternal contributions to shared reading: Effects on language and literacy development. *Journal of Applied Developmental Psychology*, *27*(1), 31–41. doi: 10.1016/j.appdev.2005.12.001

Duff, P. A. (2010). Language socialization into academic discourse communities. *Annual Review of Applied Linguistics, 30*, 169–192. doi: 10.1017/S0267190510000048

ESSA (2015). Every Student Succeeds Act of 2015, Pub. L. No. 114-95 § 114 Stat. 1177 (2015-2016).

Fantuzzo, J., McWayne, C., Perry, M. A., & Childs, S. (2004). Multiple dimensions of family involvement and their relations to behavioral and learning competencies for urban, low-income children. School Psychology Review, 33(4), 467. Retrieved from http://eportfoliocathymendoza.pbworks.com/f/Fantuzzo.pdf

Foster, M. A., Lambert, R., Abbott-Shim, M., McCarty, F., & Franze, S. (2005). A model of home learning environment and social risk factors in relation to children's emergent literacy and social outcomes. *Early Childhood Research Quarterly*, *20*(1), 13–36. doi: 10.1016/j.ecresq.2005.01.006

Gardner, D. P., Larsen, Y. W., Baker, W. O., Campbell, A., Crosby, E. A., Foster, C. A….Francis, N. C. (1983). *A nation at risk*. Washington, DC: The National Commission on Excellence in Education, US Department of Education. Retrieved from http://202.120.223.158/download/b42c4210-e82c-4244-aa4f-89d2b313f44a.doc

Garrett, P. B., & Baquedano-López, P. (2002). Language socialization: Reproduction and continuity, transformation and change. *Annual Review of Anthropology, 31*(1), 339–361. doi: 10.1146/annurev.anthro.31.040402.085352

Goldenberg, C. (2010). Making schools work for low-income families in the 21st century. In S. B. Neuman & D. K. Dickinson (Series Eds.), *Handbook of Early Literacy Research, Vol. 3* (pp. 211-231).

Gutiérrez, K. & Rogoff, B. (2002). Cultural ways of learning: Individual traits or repertoires of practice. *Educational Researcher, 32*(5), 19-25.

Heath, S. B. (1982). What no bedtime story means: Narrative skills at home and school. *Language in Society*, *11*(1), 49–76. Retrieved on 7/1/14 from http://www.jstor.org/s/4167291

Heath, S. B. (1983). *Ways with words: Language, life and work in communities and classrooms*. New York, NY: Cambridge University Press.

Hoffman, J. V., Roser, N. L., & Battle, J. (1993). Reading aloud in classrooms: From the modal toward a 'model.' *The Reading Teacher 46*(6), 496–503. Retrieved on 12/20/15 from http://www.jstor.org/stable/20201116

Huebner, C. E., & Payne, K. (2010). Home support for emergent literacy: Follow-up of a community-based implementation of dialogic reading. *Journal of Applied Developmental Psychology*, *31*(3), 195–201. doi: 10.1016/j.appdev.2010.02.002

HyperTRANSCRIBE 1.6.1. (2013). Computer Software, Researchware, Inc. Retrieved from http://www.researchware.com

Ihmeideh, F. M. (2014). The effect of electronic books on enhancing emergent literacy skills of pre-school children. *Computers & Education*, *79*, 40–48. doi: 10.1016/j.compedu.2014.07.008

Jeynes, W. H. (2003). A meta-analysis: The effects of parental involvement on minority children's academic achievement. *Education and Urban Society*, *35*(2), 202–218. doi: 10.1177/0013124502239392

Kantor, R., Miller, S. M., & Fernie, D. E. (1992). Diverse paths to literacy in a preschool classroom: A sociocultural perspective. *Reading Research Quarterly, 27*(3), 185–201. doi: 10.2307/747791

Koehler, M., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education*, *9*(1), 60–70. Retrieved on 1/16/16 from http://www.editlib.org/p/29544/

Korat, O. (2010). Reading electronic books as a support for vocabulary, story comprehension and word reading in kindergarten and first grade. *Computers & Education*, *55*(1), 24–31. doi: 10.1016/j.compedu.2009.11.014

Korat, O., & Blau, H. (2010). Repeated reading of CD-ROM storybook as a support for emergent literacy: A developmental perspective in two SES groups. *Journal of Educational Computing Research, 43(4)*, 445–466. doi: 10.2190/EC.43.4.b

Korat, O., & Or, T. (2010). How new technology influences parent-child interaction: The case of e-book reading. *First Language, 30(2)*, 139–154. doi: 10.1177/0142723709359242

Korat, O., Segal-Drori, O., & Klien, P. (2009). Electronic and printed books with and without adult support as sustaining emergent literacy. *Journal of Educational Computing Research, 41(4)*, 453–475. doi: 10.2190/EC.41.4.d

Korat, O., & Shamir, A. (2008). The educational electronic book as a tool for supporting children's emergent literacy in low versus middle SES groups. *Computers & Education, 50(1)*, 110–124. doi: 10.1016/j.compedu.2006.04.002

Korat, O., Shamir, A., & Heibal, S. (2013). Expanding the boundaries of shared book reading: E-books and printed books in parent–child reading as support for children's language. *First Language, 33(5)*, 504–523. doi: 10.1177/0142723713503148

Leacox, L., & Jackson, C. W. (2014). Spanish vocabulary-bridging technology-enhanced instruction for young English language learners' word learning. *Journal of Early Childhood Literacy, 14*(2), 175–197. doi: 10.1177/1468798412458518

Lee, V. E. (2000) Using hierarchical linear modeling to study social contexts: The case of school effects. *Educational Psychologist*, *35*(2), 125-141. doi: 10.1207/S15326985EP3502_6

Literacy toolkit expands [Information on a page]. (2013). Retrieved on 12/16/15 from http://about.myon.com/press-release/myon-expands-include-literacy-toolkit

Lonigan, C., & Whitehurst, G. (1998). Relative efficacy of parent and teacher involvement in a shared-reading intervention for preschool children from low-income backgrounds. *Early Childhood Research Quarterly, 13*(2), 263-290. doi: 10.1016/S0885-2006(99)80038-6

Magner, T., Soule, H., & Wesolowski, K. (2011). *P21 common core toolkit: A guide to aligning the common core state standards with the framework for 21st century skills.* Retrieved on 1/8/16 from www.p21.org

Manz, P. H., Hughes, C., Barnabas, E., Bracaliello, C., & Ginsburg-Block, M. (2010). A descriptive review and meta-analysis of family-based emergent literacy interventions: To what extent is the research applicable to low-income, ethnic-minority or linguistically-diverse young children? *Early Childhood Research Quarterly*, *25*(4), 409–431. Retrieved from: http://dx.doi.org/10.1016/j.ecresq.2010.03.002

Mason, J. M., & Allen, J. (1986). Chapter 1: A review of emergent literacy with implications for research and practice in reading. *Review of Research in Education*, *13*(1), 3–47. doi:10.3102/0091732X013001003

MAXQDA, software for qualitative data analysis, 1989-2016, VERBI Software – Consult – Sozialforschung GmbH, Berlin, Germany.

McCarty, T., (2004). Editor's Introduction: Brown plus 50 and beyond: Anthropology and the ongoing challenge of the "great divide." *Anthropology and Education Quarterly, 35*(1) 3-7.

McCoach, D. B., O'Connell, A. A., & Levitt, H. (2006). Ability grouping across kindergarten using an early childhood longitudinal study. *The Journal of Educational Research*, *99*(6), 339–346. Retrieved on 10/26/14 from http://www.jstor.org/stable/27548148

McKenney, S., & Voogt, J. (2009). Designing technology for emergent literacy: The PictoPal initiative. *Computers & Education*, *52*(4), 719–729. doi: 10.1016/j.compedu.2008.11.013

McWayne, C., Fantuzzo, J., Cohen, H. L., & Sekino, Y. (2004). A multivariate examination of parent involvement and the social and academic competencies of urban kindergarten children. *Psychology in the Schools, 41*(3), 363-377. doi: 10.1002/pits.10163

Mertens, D. (2015). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (4th ed.). Thousand Oaks, CA: Sage Publications.

Miles, M. & Huberman, A.M. (1994). *Qualitative data analysis: An expanded sourcebook.* Thousand Oaks, CA: Sage Publications

Mol, S. E., Bus, A. G., Jong, M. T. de, & Smeets, D. J. H. (2008). Added value of dialogic parent–child book readings: A meta-analysis. *Early Education and Development*, *19*(1), 7–26. doi: 10.1080/10409280701838603

Morrow, L. M., & Smith, J. K. (1990). The effects of group size on interactive storybook reading. *Reading Research Quarterly, 25*(3), 213–231. doi:10.2307/748003

myON reader goes mobile [Information on a page]. (2013). Retrieved on 12/16/15 from http://thefutureinreading.myon.com/overview/myon-reader-goes-mobile

National Association for the Education of Young Children (NAEYC) and the Fred Rogers Center for Early Learning and Children's Media at Saint Vincent College. (2012). Technology and Interactive Media as Tools in Early Childhood Programs Serving Children from Birth through Age 8. Washington, DC: NAEYC.

National Early Literacy Panel. (2008). *Developing early literacy: Report of the National Early Literacy Panel*. Washington, DC: National Institute for Literacy. Retrieved on October 26, 2014 from https://eric.ed.gov/?id=ED508381

National Institute of Child Health & Human Development. (2000). *Report of the National Reading Panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction. NIH Publication No. 00-4769*. Washington, DC: U.S. Government

Neuman, S. B., & Roskos, K. (1997). Literacy knowledge in practice: Contexts of participation for young writers and readers. *Reading Research Quarterly, 32*(1), 10–32. Retrieved on 4/12/12 from http://www.jstor.org/stable/748141

Neuman, S. B., & Roskos, K. (1992). Literacy objects as cultural tools: Effects on children's literacy behaviors in play. *Reading Research Quarterly, 27*(3), 203–225. doi: 10.2307/747792

Ochs, E., & Schieffelin, B. (2008). Language socialization: An historical overview. In N. H. Hornberger (Ed.), *Encyclopedia of language and education* (pp. 2580–2594). New York, NY: Springer. Retrieved on 6/7/15 from http://link.springer.com/referenceworkentry/10.1007/978-0-387-30424-3_193

Paterson, F. R. A. (2000). The politics of phonics. *Journal of Curriculum & Supervision*, *15*(3), 179–211.

Pearson, P. D., & Hiebert, E. H. (2010). National reports in literacy: Building a scientific base for practice and policy. *Educational Researcher*, 39(4), 286–294. doi: 10.3102/0013189X10370205

Pinto, A. I., Pessanha, M., & Aguiar, C. (2013). Effects of home environment and center-based child care quality on children's language, communication, and literacy outcomes. *Early Childhood Research Quarterly*, *28*(1), 94–101. doi: 10.1016/j.ecresq.2012.07.00

Pressley, M., & Allington, R. L. (2014). *Reading instruction that works, fourth edition: The case for balanced teaching.* New York, NY: Guilford Publications.

Purcell-Gates, V. (1997). *Other people's words: The cycle of low literacy*. Cambridge, MA: Harvard University Press.

R Core Team (2016). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/.

Raikes, H., Alexander Pan, B., Luze, G., Tamis-LeMonda, C. S., Brooks-Gunn, J., Constantine, J., … Rodriguez, E.T. (2006). Mother–child book reading in low-income families: Correlates and outcomes during the first three years of life. *Child Development*, *77*(4), 924–953. doi: 10.1111/j.1467-8624.2006.00911.x

Raudenbush, S.W., Bryk, A.S, & Congdon, R. (2004). HLM 6 for Windows [Computer software]. Lincolnwood, IL: Scientific Software International, Inc.

Raz-Kids [Information on a page]. (2017). Retrieved on 5/7/17 from https://www.raz-kids.com/main/AboutRazKids/

Reese, L., & Gallimore, R. (2000). Immigrant Latinos' cultural model of literacy development: An evolving perspective on home-school discontinuities. *American Journal of Education*, *108*(2), 103–134.

Rigby, R. (2008). A history of the NCTE Commission on reading documents: Three documents that challenge the limited scientific research base given authority by the National Reading Panel report. In S.B. Kucer (Ed.) *What research really says about teaching and learning to read* (pp. 17-26). Urbana, IL: National Council of Teachers of English.

Rodriguez, E. T., Tamis-LeMonda, C. S., Spellmann, M. E., Pan, B. A., Raikes, H., Lugo-Gil, J., & Luze, G. (2009). The formative role of home literacy experiences across the first three years of life in children from low-income families. *Journal of Applied Developmental Psychology*, *30*(6), 677–694. doi: 10.1016/j.appdev.2009.01.003

Rogoff, B. (2003). *Cultural nature of human development.* New York, NY: Oxford University Press.

Rush, K. L. (1999). Caregiver-child interactions and early literacy development of preschool children from low-income environments. *Topics in Early Childhood Special Education*, *19*(1), 3–14. doi: 10.1177/027112149901900101

Schecter, S. R., & Bayley, R. (2004). Language socialization in theory and practice. *International Journal of Qualitative Studies in Education, 17*(5), 605–625. doi: 10.1080/0951839042000253621

Shamir, A., Korat, O., & Barbi, N. (2008). The effects of CD-ROM storybook reading on low SES kindergarteners' emergent literacy as a function of learning context. *Computers & Education, 51(1)*, 354–367. doi: 10.1016/j.compedu.2007.05.010

Shamir, A., & Shlafer, I. (2011). E-books effectiveness in promoting phonological awareness and concept about print: A comparison between children at risk for learning disabilities and typically developing kindergarteners. *Computers & Education, 57(3)*, 1989–1997. doi: 10.1016/j.compedu.2011.05.001

Shanahan, T. (2003). Research-based reading instruction: Myths about the National Reading Panel report. *The Reading Teacher*, *56*(7), 646–655. Retrieved on April 15, 2015 from http://www.jstor.org/stable/20205261

Sipe, L. & Ghiso, M. (2004). Developing conceptual categories in classroom descriptive research: Some problems and possibilities. *Anthropology and Education Quarterly, 35* (4), 486-493.

Snow, C. E., Burns, M. S., & Griffin, P. (1998). Preventing reading difficulties in young children. *National Academies Press*. Retrieved on April 26, 2015 from http://books.google.com/books?hl=en&lr=&id=ggE9sixBdHEC&oi=fnd&pg=PT17&ots=kxABLpgit7&sig=Bu5Z8R75WRn-a11Yz6p29o8F6ac

Sonnenschein, S., & Munsterman, K. (2002). The influence of home-based reading interactions on 5-year-olds' reading motivations and early literacy development. *Early Childhood Research Quarterly*, *17*(3), 318–337. doi: 10.1016/S0885-2006(02)00167-9

Stipek, D., Clements, D., Coburn, C., Franke, M., & Farran, D. (2017). "PK-3: What does it mean for instruction?" *Society for Research in Child Development*, 30(2).

Takacs, Z. K., Swart, E. K., & Bus, A. G. (2015). Benefits and pitfalls of multimedia and interactive features in technology-enhanced storybooks: A meta-analysis. *Review of Educational Research*, *85*(4), 698–739. doi: 10.3102/0034654314566989

Taylor, B. M., Pearson, P. D., Clark, K., & Walpole, S. (2000). Effective schools and accomplished teachers: Lessons about primary-grade reading instruction in low-income schools. *The Elementary School Journal*, *101*(2), 121–165. Retrieved on 4/19/15 from http://www.jstor.org/stable/1002340

Taylor, B. M., Pearson, P. D., Peterson, D. S., & Rodriguez, M. C. (2003). Reading growth in high-poverty classrooms: The influence of teacher practices that encourage cognitive engagement in literacy learning. *The Elementary School Journal, 104*(1), 3–28. Retrieved on 4/19/15 from http://www.jstor.org/stable/3203047

Taylor, D. (1986). Creating family story: "Matthew! We're going to have a ride!". In W. H. Teale & E. Sulzby (Eds.), *Emergent Literacy: Writing and Reading. Writing Research: Multidisciplinary Inquiries into the Nature of Writing Series I* (pp. 139-155). Norwood, NJ: Ablex Publishing Corporation.

Teale, W. H. (1986). Home background and young children's literacy development. In W. H. Teale & E. Sulzby (Eds.), *Emergent Literacy: Writing and Reading. Writing Research: Multidisciplinary Inquiries into the Nature of Writing Series I* (pp. 173-206). Norwood, NJ: Ablex Publishing Corporation.

Teale, W. H. & Sulzby, E. (1986). Emergent literacy as a perspective for examining how young children become writers and readers. In W. H. Teale & E. Sulzby (Eds.), *Emergent Literacy: Writing and Reading. Writing Research: Multidisciplinary*

Inquiries into the Nature of Writing Series I (pp. vii-xxv). Norwood, NJ: Ablex Publishing Corporation.

Turner, J. C. (1995). The influence of classroom contexts on young children's motivation for literacy. *Reading Research Quarterly*, 30(3), 410–441. doi: 10.2307/747624

U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP). (2015).1998-2015 Reading Assessments.

Vernon-Feagans, L., Hammer, C.S., Miccio, A., & Manlove, E. (2010). Early language and literacy skills in low-income African American and Hispanic children. In S. B. Neuman & D. K. Dickinson (Series Eds.), *Handbook of Early Literacy Research, Vol. 3* (pp. 192-210).

Voogt, J., & Roblin, N.P. (2010). 21st century skills. Discussion paper. Retrieved on October 13, 2013 from http://development.todosmedia.com/klassetheater/wp-content/uploads/2015/04/discussie-nota-21_st_century_skills-.pdf

Warschauer, M., Grant, D., Real, G. D., & Rousseau, M. (2004). Promoting academic literacy with technology: Successful laptop programs in K-12 schools. *System*, *32*(4), 525–537. doi: 10.1016/j.system.2004.09.010

Weisner, T. (2002). Ecocultural understanding of developmental pathways. *Human Development,* 45, 275-281. Retrieved on 6/16/15 from http://www.tweisner.com/yahoo_site_admin/assets/docs/Weisner_20027_Ecocultural_understanding_of_dev_pathways_A48.220131324.pdf

Zucker, T. A., Moody, A. K., & McKenna, M. C. (2009). The effects of electronic books on pre-kindergarten-to-grade 5 students' literacy and language outcomes: A research synthesis. *Journal of Educational Computing Research*, *40*(1), 47–87. doi: 10.2190/EC.40.1.c

Appendix

Appendix A: Teacher Survey

Thank you for participating in this survey. The information gathered will remain confidential. After completion, please seal and return the survey in the labeled envelope. This survey will ask a variety of questions about literacy instruction. There is a wide range of responses with no right or wrong answers. The survey will take about 5 minutes to complete.

For each literacy activity below, please indicate on a scale of 1 to 5 approximately how often this type of activity occurred in your classroom this school year:

1= never 2=few times a year 3=few times a month 4=few times a week 5=everyday

Definition of terms:
Traditional print- any reading material printed on paper that is not read from a digital device
Digital technology- any activities requiring a digital device such as computer, Chromebook, iPad/tablet, or cell phone

General Literacy Activities- traditional print and digital technology	
1. Phonemic awareness activities	1 2 3 4 5
a. How often do you use traditional print to support phonemic awareness activities?	1 2 3 4 5
b. How often do you use digital technology to support phonemic awareness activities?	1 2 3 4 5
2. Phonics activities	1 2 3 4 5
a. How often do you use traditional print to support phonics activities?	1 2 3 4 5
b. How often do you use digital technology to support phonics activities?	1 2 3 4 5
3. Vocabulary activities	1 2 3 4 5
a. How often do you use traditional print to support vocabulary activities?	1 2 3 4 5
b. How often do you use digital technology to support vocabulary activities?	1 2 3 4 5
4. Fluency activities	1 2 3 4 5
a. How often do you use traditional print to support fluency activities?	1 2 3 4 5
b. How often do you use digital technology to support fluency activities?	1 2 3 4 5
5. Comprehension activities	1 2 3 4 5
a. How often do you use traditional print to support comprehension activities?	1 2 3 4 5
b. How often do you use digital technology to support comprehension activities?	1 2 3 4 5

6. How important is it to integrate technology in the classroom?

7. How confident do you feel with integrating digital technology in the classroom? Please explain.

1= never 2=few times a year 3=few times a month 4=few times a week 5=everyday

Reading Activities-Traditional Print and myON	
8. Read aloud or shared reading	1 2 3 4 5
a. How often do you use traditional print to support read alouds or shared reading?	1 2 3 4 5
b. How often do you use myON to support read alouds or shared reading?	1 2 3 4 5
9. Small group guided reading based on students' reading levels	1 2 3 4 5
a. How often do you use traditional print to support small group guided reading?	1 2 3 4 5
b. How often do you use myON to support small group guided reading?	1 2 3 4 5
10. Independent reading activities	1 2 3 4 5
a. How often do you use traditional print to support independent reading activities?	1 2 3 4 5
b. How often do you use myON to support independent reading activities?	1 2 3 4 5
11. Class or small group discussions connected to reading	1 2 3 4 5
a. How often do you have class or small group discussions connected to traditional print?	1 2 3 4 5
b. How often do you have class or small group discussions connected to myON?	1 2 3 4 5
12. Class or small group writing connected to reading	1 2 3 4 5
a. How often do you have class or small group writing connected to traditional print?	1 2 3 4 5
b. How often do you have class or small group writing connected to myON?	1 2 3 4 5
myON	
13. How often do you assign myON projects/book-sets to the entire class?	1 2 3 4 5
14. How often do you assign differentiated myON projects/book-sets to established myON groups?	1 2 3 4 5
15. How often do you use myON for activities in other content areas?	1 2 3 4 5
Homework and parent communication	
16. How often do you assign reading homework using traditional print books?	1 2 3 4 5
17. How often do you assign reading homework using myON?	1 2 3 4 5
18. How often do you communicate with parents about how they can provide home literacy support?	1 2 3 4 5
19. How often do you communicate with parents regarding the use of myON at home?	1 2 3 4 5

20. How effective do you feel myON has been in supporting literacy activities in the classroom?

May I contact you with follow-up questions? ___YES or ___NO
Participants selected for an interview will receive a **$20.00 gift card** for their time.
Thank you!

Appendix B: Family Literacy Survey

Thank you for participating in this survey. The information gathered will remain confidential. Please fill out this survey if you are the parent or guardian of a child who attends kindergarten, first, or second grade in Vista Unified School District. After completion, please seal and return the survey in the labeled envelope. This survey will take about 5 minutes to complete.

For each question, please select your answer on a scale of 1 to 5. There is a wide range of responses with no right or wrong answer:

1= never2=few times a year 3=few times a month 4=few times a week 5=everyday

1.How often do you read for work, school, or pleasure?	1 2 3 4 5
2.How often does your child read for school or pleasure?	1 2 3 4 5
3. How often is your child read to?	1 2 3 4 5

4. Who reads to your child? List all that apply:

_____

5. How often does your child read to someone?	1 2 3 4 5

6. Who does your child read to? List all that apply:

_____

7.How often does your child read books from the digital library myON?	1 2 3 4 5
8.How often do you or your child bring books to look at during everyday activities, like riding in the car or bus, or at the doctor's office?	1 2 3 4 5
9.How often does your child follow a regular routine for reading books, like reading books before bedtime?	1 2 3 4 5

10.How often does your child visit the library or bookmobile?	1 2 3 4 5

11.Who does your child visit the library or bookmobile with? List all that apply:

_____

12.How often does your child use a digital device to play games?	1 2 3 4 5
13.How often does your child use a digital device to read or engage in other educational activities?	1 2 3 4 5

14. What digital device(s) does your child have access to? Circle all that apply:

Computer	Cell phone	iPad/tablet	Chromebook	N/A- my child does not have access to a digital device

15. Do you have high-speed Internet access in your home? (circle one)

Yes	No	Don't know

16. When reading from myON with another person, who usually does the reading? The myON program has the option of reading the text aloud using the pre-recorded voices of actors. (circle one)

The child reads the text.	The other person reads the text.	The computer reads the text.	A combination of the child, other person, and computer.	N/A- my child does not read from myON

17.About how many children's books and/or magazines that your child enjoys are in your home right now? (circle one)

0	1-15	16-30	31-49	More than 50

18.How does your child feel about reading? (circle one)

Love	Like	Neutral	Dislike	Hate

19.What is your relationship to the child? (circle one)

mother	father	other:_____

20.Which parent helps the child the most with reading? (circle one)

mother	father	other:_____

May I contact you with follow-up questions? Participants selected for an interview will receive a **$20.00 gift card** for their time. If you are interested, please enter your name and contact information below.

Name:_____

Telephone number or

email:_____

Thank you!

Encuesta de Alfabetización Familiar

Gracias por participar en esta encuesta. La información obtenida permanecerá confidencial. Por favor complete esta encuesta si usted es el padre o tutor de un niño que asiste al kindergarten, primero o segundo grado en el Distrito Escolar Unificado de Vista (Vista Unified School District). Después de que haya completado la encuesta, por favor póngala en el sobre sellado con la etiqueta y devuélvala. Esta encuesta le tomará más o menos 5 minutos para completarla. Las respuestas a cada pregunta pueden variar. Ninguna respuesta se considera correcta ni incorrecta.

Para cada pregunta, por favor seleccione su respuesta en una escala del 1 al 5:

1= nunca 2=pocas veces al año 3=pocas veces al mes 4=pocas veces a la semana 5= cada día

1. ¿Con qué frecuencia lee Ud. para el trabajo, la escuela o por gusto?	1 2 3 4 5
2. ¿Con qué frecuencia lee su hijo/a para la escuela o porque le gusta?	1 2 3 4 5
3. ¿Con qué frecuencia le lee Ud. a su hijo/a?	1 2 3 4 5

4. ¿Quién le lee a su hijo/a? Escriba una lista de todas las personas que le leen:

_____

5. ¿Con qué frecuencia le lee su hijo/a otra persona?	1 2 3 4 5

6. ¿A quién le lee su hijo/a? Escriba una lista de todas las personas a quién le lee:

_____

7. ¿Con qué frecuencia lee su hijo/a libros de la biblioteca digital myON?	1 2 3 4 5
8. ¿Con qué frecuencia usted o su niño llevan libros para leer durante las actividades diarias como cuando andan en el coche o autobús, o cuando van al doctor/médico?	1 2 3 4 5

9. ¿Qué tan seguido su niño sigue una rutina regular para leer libros, como seria leer libros antes de irse a dormir?	1 2 3 4 5
10. ¿Con qué frecuencia visita su hijo/a la Biblioteca Pública o la Biblioteca Móvil?	1 2 3 4 5

11. ¿Quién lleva a su hijo/a visitar la Biblioteca Pública o la Biblioteca Móvil? Escriba una lista de todas las personas quienes lo/la llevan:

_____

12. ¿Con qué frecuencia su hijo/a usa tecnología con acceso a internet para jugar juegos?	1 2 3 4 5
13. ¿Con qué frecuencia su hijo /a usa tecnología con acceso a internet para leer o participar en actividades educativas?	1 2 3 4 5

14. ¿A cuál tecnología (tableta, computadora, teléfono inteligente/celular) tiene acceso su hijo/a? Haga un círculo alrededor de toda la tecnología a la cuál tiene acceso.

computadora	Un teléfono inteligente	un iPad /Una tableta	Chromebook	Ninguna de estos aparatos

15. ¿Tiene Ud. servicio de internet de alta velocidad en casa?

Sí	No	No lo se

16. Cuando lee en myON con otra persona, por lo general ¿Quién es el que lee? El programa myON tiene la opción de leer el texto en voz alta utilizando las voces pregrabadas de actores. (Haga un círculo en el que corresponda)

El niño lee el texto.	La otra persona lee el texto.	La computadora lee el texto.	Una combinación del niño, otra persona, y la computadora.	N/A- Mi hijo no lee de myON

17.¿Más o menos cuantos libros de niños y/o revistas que a su hijo le gustan tiene usted en su casa ahora mismo? (Ponga un circulo alrededor del que corresponda)

0	1-15	16-30	31-49	Más de 50

18.¿Cómo se siente su hijo acerca de la lectura (Haga un circulo alrededor del que corresponda)

Le encanta	Le gusta	Neutral	No le gusta	La detesta

19.¿Cual es su relación con el niño? (Haga un círculo alrededor del que corresponda)

Madre	Padre	otra:_____

20. ¿Quién de los padres ayuda al niño con la lectura?(haga un círculo alrededor del que corresponda)

Madre	Padre	otra:_____

¿Puedo ponerme en contacto con usted para preguntas de seguimiento?. Los participantes seleccionados para la entrevista recibirán una tarjeta de regalo de **$20.00** por participar en esta entrevista de seguimiento. Si usted está interesado/a, por favor escriba su nombre e información de contacto a continuación.

Nombre:_____

Número de teléfono o correo electrónico:_____

Gracias!

Appendix C: Teacher Interview Schedule (Sample protocol)

Introductions:

- Begin by thanking the teacher for participating and the purpose of the project. Explain that I am interested in what teachers think about literacy instruction including the use of digital technology such as myON. Provide assurance that there is a wide range of possible responses with no right or wrong answers.
- Explain that the interview will be audio recorded for the purpose of transcribing; however their responses will remain confidential. Remind them that they may choose to not answer any question and that they can stop the interview at any time. Let him or her know the interview will take approximately 45 minutes.
- Review the consent forms and ask if they have any questions before beginning the interview.

History of literacy learning

1.What do you remember about learning how to read and write? Did your parents help you? If yes, in what ways?

Say: Elementary education is different than we experienced. I'm going to revisit a couple of the questions that were on the survey that will address some of those differences.

Assure teacher that there are varying responses and that it is common to hear responses that show both the benefits and challenges of teaching in today's context.

2. How important is it to integrate technology in the classroom?

3. How confident do you feel with integrating digital technology in the classroom? Please explain.

Beliefs about literacy learning

4. Could you walk me through a typical literacy block in your classroom?

5. What are your thoughts about using myON in the classroom? If the teacher indicates myON is used to any degree then ask, Could you describe how myON is integrated into your day?

Follow-ups if necessary to initiate details: If I were to be in your classroom while myON is being used, how would you describe the ways the students interact with the myON? With each other? How do you interact with myON? With the students during myON use?

6. What are the benefits of using myON? Concerns?

7. How effective do you feel myON has been in supporting literacy activities in the classroom?

Beliefs about literacy learning and parental involvement

8. In what ways have you communicated with parents about supporting their child with literacy?

Follow-up if necessary: Could you describe the types of communication you have had with parents about the use of technology at home?

9. Could you describe your reading homework protocol and expectations?

To what degree are your students meeting these expectations? Why or why not?

Wrap-up

10. What advice would you give another teacher about to begin using myON?

11. Is there anything else you would like to add about literacy instruction or your use of technology that we haven't discussed?

Thank you for your time!

Appendix D: School Personnel Interview Schedule (Sample protocol)

Introductions:

- Begin by thanking the support staff person for participating and explain the purpose of the project. Explain that I am interested in how they support the implementation of literacy instruction including the use of digital resources such as myON in the classroom and home. Provide assurance that there is a wide range of possible responses with no right or wrong answers.
- Explain that the interview will be audio recorded for the purpose of transcribing; however their responses will remain confidential. Remind them that they may choose to not answer any question and that they can stop the interview at any time. Let him or her know the interview will take approximately 45 minutes.
- Review the consent forms and ask if they have any questions before beginning the interview.

History of literacy learning

1. What do you remember about learning how to read and write?
Did your parents help you?
If yes, in what ways?

Beliefs about literacy learning

2. How important is it to integrate technology in the classroom?

3. What role do you think parents play in supporting literacy learning?

Activities that support literacy at school

4. What support have you or the school/district provided teachers for literacy instruction?

5. What support have you or the school/district provided teachers for technology integration?

6. What observations have you made regarding myON usage in the school?

Literacy and myON at home

7. What support have you or the school/district provided families for supporting their child in literacy?

8. What support have you or the school/district provided families for technology integration? What support have you or the school/district provided families specifically for myON usage?

Wrap-up

9. Is there anything else you would like to add about literacy instruction or the use of myON in the school that we haven't discussed?

Thank you for your time!

Appendix E: Parent Interview Schedule (Sample protocol)

Introductions:

- Begin by thanking them for participating and explain the purpose of the project. Explain that I am interested in what families think about literacy and the use of digital resources such as myON and what families do at home to support literacy. Provide assurance that there is a wide range of possible responses with no right or wrong answers.
- Explain that the interview will be audio recorded for the purpose of transcribing; however their responses will remain confidential. Remind them that they may choose to not answer any question and that they can stop the interview at any time. Let him or her know the interview will take approximately 45 minutes.
- Review the consent forms and ask if they have any questions before beginning the interview.

History of literacy learning

1. What do you remember about learning how to read and write? Did your parents help you? If yes, in what ways?

Activities that support literacy at home

2. Think about when your child reads at home.
How often does your child read alone? How often does your child read with someone else?
Who reads with your child? When you read with your child what strategies do you use to help them learn to read independently? What does your child read?
(If the parent mentions the use of myON throughout number 2, attempt to clarify when the responses are for traditional print, myON, or both.)
Follow-ups if necessary to initiate details: Who initiates the reading? Who selects the reading material? Who reads? What language?
3. After reading alone or with others, do you ever discuss with your child what was read or do a follow-up such as ask questions or do an activity such as drawing a picture? If yes, please give some examples.
4. How often do you have extended conversations with your children? If so, what type of conversations? When and for how long?
5. Do you tell stories to your children? What type of stories? How often? Why are they told?
6. At home does your child work on basic literacy skills such as letters of the alphabet, the sounds of the letters, or how to write each letter? Who works with your child? If yes, who initiates this work?
7. In what ways has the school or teacher helped you support your child with literacy?

Digital Technology

8. Could you describe your child's use of digital technology at home?
Follow-ups: Who initiates these activities? Does your child do them independently, with another person, or does someone help them?
Do you feel the use of digital technology is helping your child in their education? Why or why not?

9. If no previous mention of myON, then ask are you familiar with the digital library myON?
If no, give a brief description.
If yes or if they previously mentioned myON: How did you find out about myON? What are your thoughts about children using myON for reading?

Conclusion

10. Is there anything else you would like to add? Thank you!

Apéndice E: Plan para la entrevista con padres (Ejemplo de documento)

Introducciones:

- Comenzar por agradecerles su participación y explicarles el propósito del proyecto. Explicarles por-qué estoy interesada en lo que piensan las familias acerca de la alfabetización y el uso de recursos digitales como el myOn y lo que hacen las familias en casa para apoyar la alfabetización. Darles la

seguridad a los padres de que hay una gran cantidad de respuestas posibles no habiendo ni buenas ni malas respuestas.

- Explicarles que la entrevista será grabada en audio con el propósito de ser escrita después, sin embargo las respuestas permanecerán confidenciales. Recordarles que pueden decidir no contestar a alguna pregunta y pueden parar la entrevista en cualquier momento. Informarles que la entrevista tomará aproximadamente 45 minutos.
- Revisar los formularios de consentimiento y preguntarles si tienen algunas preguntas antes de que comience la entrevista.

Historial del aprendizaje de alfabetización

1. ¿Qué recuerdan acerca de cómo aprendieron a leer y escribir? ¿Los ayudaron sus padres? Si fue así, en qué forma?

Actividades que apoyan la alfabetización en casa

2. Piensen cuando su niño lee en la casa.
¿Qué tan seguido su niño lee solo? ¿Qué tan seguido su niño lee con alguien más?
¿Quién lee con su niño? ¿Cuándo leen con su niño, que estrategias usan para ayudarlo a leer independientemente?. ¿Que lee su niño?
(Si el padre menciona el uso de myON cuando contestó el número 2, trate de que aclare cuando las respuestas sean por libros impresos o myON o ambos.)
Haga un seguimiento si es necesario para tener más detalles. ¿Quién comienza a leer? ¿Quién selecciona el material de lectura? ¿Quién lee, ¿En qué idioma?

3. Después de leer solo o con otros, alguna vez hablan con su niño de lo que leyó o le hacen un seguimiento, por ejemplo, hacerle preguntas o hacen alguna actividad como hacer un dibujo de lo que leyó. Si así es el caso, de algunos ejemplos.

4. ¿Qué tan seguido tienen conversaciones largas con sus niños? Si es así, cual es el tipo de conversaciones? ¿Cuándo y por cuánto tiempo?

5. ¿Les cuentan historias a sus niños? ¿Qué tipo de historias?, ¿Que tan seguido?, ¿Porque se las cuentan?

6. En casa su niño trabaja en habilidades de alfabetización básica como serían las letras del alfabeto, los sonidos de las letras o como escribir una carta? ¿Quién trabaja con su niño? Si es así, quién comienza este trabajo?

7. ¿De qué manera la escuela o el maestro los ayudaron para apoyar a su niño con la alfabetizacion?

Tecnología digital

8. ¿Podrían describir como usa su niño la tecnología digital en casa?
Seguimientos: ?Quién comienza con estas actividades? ¿El niño las hace independientemente? ¿Con otra persona? O alguien lo ayuda?
¿Creen ustedes que la tecnología digital le está ayudando a su niño en su educación? ¿ Porqué, o porqué no?

9. Si no hay mención previa de myON , pregunte entonces si están familiarizados con la biblioteca digital myON.
Si dicen que no, denles una descripción breve.
Si dicen que si o si previamente mencionaron a myOn . ¿Como supieron de myOn?. ¿ Que piensan de los niños que están usando myOn para leer?

Conclusión

10. Hay algo que desean añadir?

Thank you!

Appendix F: Teacher Invitation

UNIVERSITY OF CALIFORNIA, SAN DIEGO
Invitation to Participate in Study

Dear VUSD Teachers,

I am currently a doctoral student at UCSD. For my dissertation project, I am interested in understanding more about the literacy practices of TK-2 students in their school and home. I believe this will help educators in their work with children and families.

I am inviting you to participate in this research study because I believe your experiences can be of great help in this work. This packet includes consent forms and a classroom literacy survey that teachers are invited to complete. The information gathered will remain confidential. This survey will take about 5 minutes to complete. Please return the consent documents and survey within one week from today's date.

I will be carrying out this study as a researcher from the University of California, San Diego. This research has no connection at all to your school or the Vista Unified School District. Your decision to participate in this study has no bearing on your employment status.

All responses will be kept completely confidential. I will never use your name, your students' or their parents' names, the name of your school, or the school district in any publication or presentation. I will safeguard any risk of loss of confidentiality by using pseudonyms for all research participants as well as the names of the district and all schools. All data will be stored on a password-protected computer in an encrypted and password-protected folder accessible only to me.

Since this is an investigational study there may be some unknown risks that are currently unforeseeable. You will be informed of any significant new findings.

If you have any questions at all regarding this project, or the survey, please call me at 760-685-4669 or email me at wloconno@ucsd.edu and I will be happy to clarify.

Thank you very much,
Wendy O'Connor

Appendix G: School Personnel Invitation

UNIVERSITY OF CALIFORNIA, SAN DIEGO
Invitation to Participate in Study

Dear VUSD School Personnel,

I am currently a doctoral student at UCSD. For my dissertation project, I am interested in understanding more about the literacy practices of TK-2 students in their school and home. I believe this will help educators in their work with children and families.

I am inviting you to participate in this research study because I believe your experiences can be of great help in this work. This packet includes consent forms that you are invited to complete. The consent forms indicate that you are willing to participate in an interview regarding your role in supporting literacy practices in the school and home of TK-2 students at your school. Please return the consent documents within one week from today's date.

I will be carrying out this study as a researcher from the University of California, San Diego. This research has no connection at all to your school or the Vista Unified School District. Your decision to participate in this study has no bearing on your employment status.

All responses will be kept completely confidential. I will never use your name, students' or their parents' names, the name of your school, or the school district in any publication or presentation. I will safeguard any risk of loss of confidentiality by using pseudonyms for all research participants as well as the names of the district and all schools. All data will be stored on a password-protected computer in an encrypted and password-protected folder accessible only to me.

Since this is an investigational study there may be some unknown risks that are currently unforeseeable. You will be informed of any significant new findings.

If you have any questions at all regarding this project, or the survey, please call me at 760-685-4669 or email me at wloconno@ucsd.edu and I will be happy to clarify.

Thank you very much,
Wendy O'Connor

Appendix H: Parent Invitation

UNIVERSITY OF CALIFORNIA, SAN DIEGO
Invitation to Participate in Study

Dear VUSD Parents,

Hello, my name is Wendy O'Connor. I am currently a doctoral student at UCSD. For my dissertation project, I am interested in the literacy practices of TK-2 students in their school and home. I believe this will help educators in their work with children and families.

I am inviting you to participate in this research study because I believe your experiences will be of great help in this work. This packet includes consent forms and literacy survey that you are invited to complete. The information gathered will remain confidential. This survey will take about 5 minutes to complete. Please return the survey within one week from today's date.

I will be carrying out this study as a researcher from the University of California, San Diego. I want you to understand that this research has no connection at all to your school or the Vista Unified School District.

All responses will be kept completely confidential. I will never use your name, your children's or their teachers' names, the name of your children's school, or the school district in any publication or presentation. I will safeguard any risk of loss of confidentiality by using pseudonyms for all research participants as well as the names of the district and all schools. All data will be stored on my personal password-protected computer in an encrypted and password-protected folder.

Since this is an investigational study there may be some unknown risks that are currently unforeseeable. You will be informed of any significant new findings.

If you have any questions at all regarding this project, or the survey, please call me at 760-685-4669 or email me at wloconno@ucsd.edu and I will be happy to clarify.

Thank you very much,
Wendy O'Connor

Invitación a los Padres

UNIVERSITY OF CALIFORNIA, SAN DIEGO
Invitación para Participar en el Estudio

Estimados Padres de VUSD,

Hola, mi nombre es Wendy O'Connor. Actualmente soy estudiante de doctorado en UCSD. Para mi proyecto de tesis, estoy interesada en las prácticas de alfabetización de estudiantes de TK-2 en sus escuelas y en el hogar. Creo que esto ayudará a los educadores en su trabajo con niños y familias.

Les estoy invitando a participar en este estudio de investigación porque creo que sus experiencias serán de gran ayuda en este trabajo. Este paquete incluye formularios de consentimiento y encuesta sobre alfabetización que están invitados a completar. La información obtenida será confidencial. Esta encuesta toma aproximadamente 5 minutos para completarla. Por favor, devuelva la encuesta en el curso de una semana desde la fecha de hoy.

Voy a llevar a cabo este estudio como investigadora de University of California, San Diego. Quiero explicarles que esta investigación no tiene ninguna conexión con su escuela o con Distrito Escolar Unificado de Vista (Vista Unified School District).

Todas las respuestas se guardarán en completa confidencialidad. Nunca utilizaré su nombre, el nombre de su hijo, o el nombre de sus profesores, el nombre de la escuela de sus hijos, o el distrito escolar en ninguna publicación o presentación. Los protegeré de cualquier riesgo de pérdida de confidencialidad mediante el uso de seudónimos para todos los participantes en la investigación, así como los nombres del distrito y todas las escuelas. Todos los datos serán almacenados en un ordenador personal protegido por contraseña en una carpeta cifrada y protegida por contraseña.

Ya que este es un estudio investigativo podrían haber algunos riesgos desconocidos que actualmente no son previsibles. Se le informará de cualquier resultado importante.

Si tiene cualquier pregunta respecto a este proyecto, o la encuesta, por favor llámeme al 760-685-4669 por correo electrónico a wloconno@ucsd.edu y tendré mucho gusto en aclararlas.

Muchas gracias,
Wendy O'Connor

Appendix I: Teacher Consent

UNIVERSITY OF CALIFORNIA, SAN DIEGO -Consent to Act as a Research Subject

**Sociocultural Early Literacy Practices of the School and Home Context:
The Role of a Digital Library**

Wendy O'Connor, Ed.D. candidate, is conducting a research study to find out more about the literacy practices of TK-2 students in their school and home. As the use of technology for teaching in the 21st century continues to grow in the United States, the information gained from this study will provide an important glimpse into the daily lives of teachers, students, and parents in relation to the use of technology as part of their daily literacy practices. You have been asked to participate in this study because you are a TK-2 classroom teacher in the Vista Unified School District. There will be 6-9 parent participants, 3 school personnel including the principal, family liaison, and after school teacher, and 6-9 teacher participants in the interview phase of this study.

If you agree to participate in this study, you will be asked to complete the classroom literacy practices survey and indicate on the last sentence if you are willing to participate in a future interview regarding the same topic. If you do not choose to participate in the interview, then your participation will end upon the completion and return of the consent form and classroom literacy survey. If you agree, and are selected, you will participate in a face-to-face interview lasting approximately 45 minutes. The interview will be audio recorded and transcribed. If you wish, you will be able to view and assess the accuracy of the interview transcription. The overall duration of your involvement with this study will end upon completion of the interview in May or June of 2016.

If you agree to participate in this study, the following will occur:

1. You will complete the classroom literacy survey and consent forms and return them through district mail to Wendy O'Connor.

2. If you indicated a willingness to participate in an interview, and are selected, Wendy O'Connor will arrange a time to meet with you for an interview lasting approximately 45 minutes in May or June of 2016. During this interview, Wendy will ask you questions about your background, your daily classroom literacy practices, and your perceptions about your students' home literacy practices. You are not required to answer any questions during this interview. Wendy will audio record this interview if you have given permission and have agreed to participate. Audio recordings will later be transcribed and analyzed for this study. All audio recordings and transcriptions will be kept secure and confidential.

3. The overall duration of your involvement with this study will end upon completion of the survey in May, 2016 or the completion of the interview in May or June of 2016.

Participation in this study may involve some minimal risks or discomforts. These include:

1. A potential for feeling discomfort, stress, boredom, or fatigue when participating in the survey or during interviews. To mitigate this, the survey and interview questions have been revised based on feedback in order to minimize their duration and the potential for

discomfort, stress, boredom, and fatigue. No questions are mandatory and you are free to skip any questions that you do not feel comfortable answering.

2. A potential for the loss of confidentiality. Wendy will make every effort to ensure that all of your answers will remain completely confidential. All data will be stored on a password-protected computer in an encrypted and password-protected folder. Audio recordings of interviews will be stored on a password-protected computer. Wendy will remove all identifying information from transcripts and other documentation of your participation in this study. Wendy will assign pseudonyms to all participants and will keep the pseudonym key in a password- protected file. Wendy will never use your name or any other identifying information, or the name of the Vista Unified School District in any publication or presentation. Wendy will safeguard against any risk of loss of confidentiality by using pseudonyms for all research participants as well as the names of your students, their parents and your schools. All digital records will be stored in a password-protected computer account accessible only to Wendy O'Connor. All paper documents will be locked in a file cabinet. Research records will be kept confidential. Research records may be reviewed by the UC San Diego Institutional Review Board.

3. A potential to feel uncomfortable while answering interview questions. At any time, you may decline to answer an interview question or you may direct Wendy to delete a portion or the entire recording of the interview in progress. Furthermore, you may withdraw your consent to participate at any time during the duration of this study, at which time all recordings would be erased and all records of your participation would be destroyed.

Because this is a research study, there may also be some unknown risks that are currently unforeseeable. You will be informed of any significant new findings.

The alternative to participation in this study is simply not to participate. Your job and position within the Vista Unified School District would not be affected in any way by your decision to either participate or not participate in this study.

There will be no direct benefit to you from participating in this study. Wendy O'Connor, however, may learn more about how schools and families use technology as part of their daily literacy practices.

Participation in research is entirely voluntary. You may refuse to participate, withdraw, or refuse to answer specific questions in an interview or on a survey at any time without penalty. If you decide that you no longer wish to continue in this study, please inform Wendy O'Connor and she will delete any evidence of your participation in this research project. You may also be withdrawn from the study without your consent if at any time, based on subjective assessment, Wendy O'Connor determines that it is in your best interest to do so.

You will be told if any important new information is found during the course of this study that may affect your desire to continue.

In compensation for your time, you will receive a $20 gift card for participating in the interview.

There will be no cost to you for participating in this study.

If you have other questions or research-related problems, you may reach Wendy O'Connor at 760-685-4669 or by email at wloconno@ucsd.edu. You may call the UC San Diego Human Research Protections Program Office at (858) 657-5100 to inquire about your rights as a research subject or to report research-related problems.

This page is a record of your consent document.

By signing below, you agree that Wendy O'Connor has explained this study to you and answered your questions. You agree to participate in the survey portion of this study, and if you are interested you may be selected to participate in an interview. You can indicate by checking "yes" or "no" below if you are interested in continuing your participation through an interview. If you select "no", your participation in this research is complete, and all of your answers on this survey will remain completely confidential. If you select "yes", and are selected for an interview, then your participation will end after completion of the interview in May or June of 2016.

_____
Participant's Name

_____ _____
Participant's Signature Date

_____ _____
Researcher's Signature Date

___Yes, I give consent for my survey responses to be included in the study and I am willing to participate in an interview.

___No, I am not willing to participate in an interview; however, I give consent for my survey responses to be included in the study.

You have received a copy of this consent document to keep.

Appendix J: School Personnel Consent

UNIVERSITY OF CALIFORNIA, SAN DIEGO -Consent to Act as a Research Subject

Sociocultural Early Literacy Practices of the School and Home Context: The Role of a Digital Library

Wendy O'Connor, Ed.D. candidate, is conducting a research study to find out more about the literacy practices of TK-2 students in their school and home. As the use of technology for teaching in the 21st century continues to grow in the United States, the information gained from this study will provide an important glimpse into the daily lives of teachers, students, and parents in relation to the use of technology as part of their daily literacy practices. You have been asked to participate in this study because you are a principal, family liaison, or after school teacher in the Vista Unified School District. There will be 6-9 parent participants, 3 school personnel including the principal, family liaison, and after school teacher, and 6-9 teacher participants in the interview phase of this study.

If you agree to participate in this study, you will be asked to participate in a face-to-face interview lasting approximately 45 minutes. The interview will be audio recorded and transcribed. If you wish, you will be able to view and assess the accuracy of the interview transcription. The overall duration of your involvement with this study will end upon completion of the interview in May or June of 2016.

If you agree to participate in this study, the following will occur:

1. You will complete the consent forms and return them through district mail to Wendy O'Connor.

2. Wendy O'Connor will arrange a time to meet with you for an interview lasting approximately 45 minutes in May or June of 2016. During this interview, Wendy will ask you questions about your background, how you support the daily classroom literacy practices at your school, how you support the daily family literacy practices of students' families, and your perceptions about home literacy practices of the students in your school. You are not required to answer any questions during this interview. Wendy will audio record this interview if you have given permission and have agreed to participate. Audio recordings will later be transcribed and analyzed for this study. All audio recordings and transcriptions will be kept secure and confidential.

3. The overall duration of your involvement with this study will end upon completion of the interview in May or June of 2016.

Participation in this study may involve some minimal risks or discomforts. These include:

1. A potential for feeling discomfort, stress, boredom, or fatigue when participating in the survey or during interviews. To mitigate this, the survey and interview questions have been revised based on feedback in order to minimize their duration and the potential for discomfort, stress, boredom, and fatigue. No questions are mandatory and you are free to skip any questions that you do not feel comfortable answering.

2. A potential for the loss of confidentiality. Wendy will make every effort to ensure that all of your answers will remain completely confidential. All data will be stored on a password-protected computer in an encrypted and password-protected folder. Audio recordings of interviews will be stored on a password-protected computer. Wendy will remove all identifying information from transcripts and other documentation of your participation in this study. Wendy will assign pseudonyms to all participants and will keep the pseudonym key in a password- protected file. Wendy will never use your name or any other identifying information, or the name of the Vista Unified School District in any publication or presentation. Wendy will safeguard against any risk of loss of confidentiality by using pseudonyms for all research participants as well as the names of your students, their parents and your schools. All digital records will be stored in a password-protected computer account accessible only to Wendy O'Connor. All paper documents will be locked in a file cabinet. Research records will be kept confidential. Research records may be reviewed by the UC San Diego Institutional Review Board.

3. A potential to feel uncomfortable while answering interview questions. At any time, you may decline to answer an interview question or you may direct Wendy to delete a portion or the entire recording of the interview in progress. Furthermore, you may withdraw your consent to participate at any time during the duration of this study, at which time all recordings would be erased and all records of your participation would be destroyed.

Because this is a research study, there may also be some unknown risks that are currently unforeseeable. You will be informed of any significant new findings.

The alternative to participation in this study is simply not to participate. Your job and position within the Vista Unified School District would not be affected in any way by your decision to either participate or not participate in this study.

There will be no direct benefit to you from participating in this study. Wendy O'Connor, however, may learn more about how schools and families use technology as part of their daily literacy practices.

Participation in research is entirely voluntary. You may refuse to participate or withdraw or refuse to answer specific questions in an interview or on the survey at any time without penalty. If you decide that you no longer wish to continue in this study, please inform Wendy O'Connor and she will delete any evidence of your participation in this research project. You may also be withdrawn from the study without your consent if at any time, based on subjective assessment, Wendy O'Connor determines that it is in your best interest to do so.

You will be told if any important new information is found during the course of this study that may affect your desire to continue.

In compensation for your time, you will receive a $20 gift card for participating in the interview.

There will be no cost to you for participating in this study.

If you have other questions or research-related problems, you may reach Wendy O'Connor at 760-685-4669 or by email at wloconno@ucsd.edu. You may call the UC San Diego Human

Research Protections Program Office at (858) 657-5100 to inquire about your rights as a research subject or to report research-related problems.

Please print this page as a record of your consent document.

By signing below, you agree that Wendy O'Connor has explained this study to you and answered your questions. You agree to participate in an interview. Your participation will end after completion of the interview in May or June of 2016.

_____
Participant's Name

_____ _____
Participant's Signature Date

_____ _____
Researcher's Signature Date

You have received a copy of this consent document to keep.

Appendix K: Parent Consent

UNIVERSITY OF CALIFORNIA, SAN DIEGO -Consent to Act as a Research Subject

Sociocultural Early Literacy Practices of the School and Home Context: The Role of a Digital Library

Wendy O'Connor, Ed.D. candidate, is conducting a research study to find out more about the literacy practices of TK-2 students in their school and home. As the use of technology for teaching in the 21st century continues to grow in the United States, the information gained from this study will provide an important glimpse into the daily lives of teachers, students, and parents in relation to the use of technology as part of their daily literacy practices. You have been asked to participate in this study because you have at least one TK-2 child enrolled in the Vista Unified School District. There will be 6-9 parent participants, 3 school personnel including the principal, family liaison, and after school teacher, and 6-9 teacher participants in the interview phase of this study.

If you agree to participate in this study, you give consent for your child's individual student myON usage data, demographic data, National School Lunch Program data, and STAR Early Literacy or STAR Reading data to be included in the study. You will be asked to complete the family literacy practices survey and indicate on the last sentence if you are willing to participate in a future interview regarding the same topic. If you do not choose to participate in the interview, then your participation will end upon the completion and return of the consent form and family literacy survey. If you agree, and are selected, you will participate in a face-to-face interview in English or Spanish. Interviews will last approximately 45 minutes. The interview will be audio recorded and transcribed. If you wish, you will be able to view and assess the accuracy of the interview transcription. The overall duration of your involvement with this study will end upon completion of the interview in the summer of 2016.

If you agree to participate in this study, the following will occur:

1. You will complete the family literacy survey and consent forms and return them to the school.

2. If you indicated a willingness to participate in an interview, and are selected, Wendy O'Connor or a bilingual member of the research team will arrange a time to meet with you for an interview lasting approximately 45 minutes in June, July, or August of 2016. During this interview, Wendy will ask you questions about your background, your daily family literacy practices, and your perceptions about your students' classroom literacy practices. You are not required to answer any questions during this interview. Wendy will audio record this interview if you have given permission and have agreed to participate. Audio recordings will later be transcribed and analyzed for this study. All audio recordings and transcriptions will be kept secure and confidential.

3. The overall duration of your involvement with this study will end upon completion of the survey in May, 2016 or the completion of the interview in June, July, or August of 2016.

Participation in this study may involve some minimal risks or discomforts. These include:

1. A potential for feeling discomfort, stress, boredom, or fatigue when participating in the survey or during interviews or a potential for feeling emotional distress while answering survey or interview questions. To mitigate this, the survey and interview questions have been revised based on feedback in order to minimize their duration and the potential for discomfort, stress, boredom, and fatigue. No questions are mandatory and you are free to skip any questions that you do not feel comfortable answering. All answers will be kept completely confidential and you are not required to respond to any question that causes discomfort. You may end the interview at any time.

2. A potential for the loss of confidentiality. Wendy will make every effort to ensure that all of your answers will remain completely confidential. All data will be stored on a password-protected computer in an encrypted and password-protected folder. Audio recordings of interviews will be stored on a password-protected computer. Wendy will remove all identifying information from transcripts and other documentation of your participation in this study. Wendy will assign pseudonyms to all participants and will keep the pseudonym key in a password- protected file. Wendy will never use your name or any other identifying information, or the name of the Vista Unified School District in any publication or presentation. Wendy will safeguard against any risk of loss of confidentiality by using pseudonyms for all research participants as well as the names your school. All digital records will be stored in a password-protected computer account accessible only to Wendy O'Connor. All paper documents will be locked in a file cabinet. Research records will be kept confidential. Research records may be reviewed by the UC San Diego Institutional Review Board.

3. A potential to feel uncomfortable while answering interview questions. At any time, you may decline to answer an interview question or you may direct Wendy to delete a portion or the entire recording of the interview in progress. Furthermore, you may withdraw your consent to participate at any time during the duration of this study, at which time all recordings would be erased and all records of your participation would be destroyed.

Because this is a research study, there may also be some unknown risks that are currently unforeseeable. You will be informed of any significant new findings.

The alternative to participation in this study is not to participate. Your child's grades, enrollment, and placement will not be affected in any way by your decision to participate.

There will be no direct benefit to you from participating in this study. Wendy O'Connor, however, may learn more about how schools and families use technology as part of their daily literacy practices.

Participation in research is entirely voluntary. You may refuse to participate or withdraw or refuse to answer specific questions in an interview or on a survey at any time without penalty. If you decide that you no longer wish to continue in this study, please inform Wendy O'Connor and she will delete any evidence of your participation in this research project. You may also be withdrawn from the study without your consent if at any time, based on subjective assessment, Wendy O'Connor determines that it is in your best interest to do so.

You will be told if any important new information is found during the course of this study that may affect your desire to continue.

In compensation for your time, you will receive a $20 gift card for participating in the interview.

There will be no cost to you for participating in this study.

If you have other questions or research-related problems, you may reach Wendy O'Connor at 760-685-4669 or by email at wloconno@ucsd.edu. You may call the UC San Diego Human Research Protections Program Office at (858) 657-5100 to inquire about your rights as a research subject or to report research-related problems.

Please print this page as a record of your consent document.

By signing below, you agree that Wendy O'Connor has explained this study to you and answered your questions. You agree to participate in the survey portion of this study, and if you are interested you may be selected to participate in an interview. You can indicate by checking "yes" or "no" below if you are interested in continuing your participation through an interview. If you select "no", your participation in this research is complete, and all of your answers on the survey will remain completely confidential. If you select "yes", and are selected for an interview, then your participation will end after completion of the interview in June, July, or August of 2016.

_____
Participant's Name

_____ _____
Participant's Signature Date

_____ _____
Researcher's Signature Date

___Yes, I give consent for my child's individual student myON usage data, demographic data, National School Lunch Program data, and STAR Early Literacy or STAR Reading data, and survey responses to be included in the study, and I am willing to participate in an interview.

___No, I am not willing to participate in an interview; however, I give consent for my child's individual student myON usage data, demographic data, National School Lunch Program data, and STAR Early Literacy or STAR Reading data, and survey responses to be included in the study. Your participation in this research is complete, and all of your child's data and answers on this survey will remain completely confidential.

You have received a copy of this consent document to keep.

Consentimiento de los Padres

UNIVERSITY OF CALIFORNIA, SAN DIEGO –Consentimiento para Actuar como Sujeto de Investigación

Prácticas Socioculturales de Alfabetización Temprana del Contexto Escolar y del Hogar: El Papel de una Biblioteca Digital

Wendy O'Connor, candidata al título de Doctor en Educación, está llevando a cabo un estudio de investigación para saber más sobre las prácticas de alfabetización en estudiantes de TK-2 en sus escuelas y hogar. A medida que el uso de la tecnología para la enseñanza en el Siglo XXI sigue creciendo en los Estados Unidos, la información obtenida de este estudio proporcionará una visión importante de la vida diaria de los profesores, estudiantes, y padres en el uso de la tecnología como parte de sus prácticas de alfabetización diarias. Se le ha pedido que participe en este estudio porque usted tiene por lo menos un hijo de TK-2 matriculado en el Distrito Escolar Unificado de Vista (Vista Unified School District). Habrá aproximadamente 9 padres participantes, 3 miembros del personal de la escuela incluyendo el director, enlace familiar, y maestro de actividad extracurricular y 9 profesores participantes en la fase de entrevistas de este estudio.

Si usted está de acuerdo en participar en este estudio, usted dará su consentimiento para que los datos individuales de uso de myON de su hijo, los datos demográficos, datos del Programa Nacional de Almuerzo Escolar, y STAR Alfabetización Temprana o STAR Lectura sean incluídos en el estudio. Se le pedirá que complete la encuesta de las prácticas de alfabetización familiar y que indique en la última oración si está dispuesto a participar en una futura entrevista en relación con el mismo tema. Si usted decide no participar en la entrevista, entonces su participación terminará al finalizar y devolver el formulario de consentimiento y la encuesta de alfabetización familiar. Si está de acuerdo, y es seleccionado, usted participará en una entrevista en persona en nglés o traducida al Español. Las entrevistas realizadas únicamente en Inglés tendrán una duración de aproximadamente 45 minutos, mientras que las entrevistas traducidas al Español tendrán una duración de aproximadamente 90 minutos. La entrevista será grabada en audio y transcrita. Si lo desea, usted podrá ver y evaluar la exactitud de la transcripción de la entrevista. La duración total de su participación en este estudio finalizará al término de la entrevista en el verano de 2016.

Si usted está de acuerdo en participar en este estudio, ocurrirá lo siguiente:

1. Usted completará la encuesta de alfabetización familiar y los formularios de consentimiento y los devolverá a la escuela.

2. Si usted indicó su deseo de participar en una entrevista, y es seleccionado, Wendy O´Connor organizará un tiempo para reunirse con usted para una entrevista de aproximadamente 45-90 minutos en Junio, Julio, o Agosto de 2016. Durante esta entrevista, Wendy le hará preguntas acerca de sus antecedentes, sus prácticas diarias de alfabetización familiar y sus percepciones acerca de las prácticas de alfabetización de los estudiantes en las aulas. Usted no está obligado a responder a cualquier pregunta durante la entrevista. Wendy grabará en audio esta entrevista si usted ha dado permiso y ha aceptado participar. Las grabaciones de audio luego serán transcritas y analizadas para este estudio. Todas las grabaciones de audio y las transcripciones se mantendrán seguras y confidenciales.

3. La duración total de su participación en este estudio finalizará al término de la encuesta realizada en Mayo de 2016, o una vez se haya completado la entrevista en Junio, Julio, o Agosto de 2016.

La participación en este estudio puede implicar algunos riesgos o molestias mínimas. Estas incluyen:

1. Probablemente podría sentir incomodidad, estrés, aburrimiento o fatiga al participar en la encuesta o durante las entrevistas, o podría sentir angustia emocional mientras responde a las preguntas de la encuesta o de la entrevista. Para su tranquilidad, las preguntas de la encuesta y de la entrevista han sido revisadas basadas en retroalimentación con el fin de minimizar su duración y la potencial incomodidad, estrés, aburrimiento y fatiga. Ninguna pregunta es obligatoria y usted es libre de saltarse cualquier pregunta que no se sienta cómodo en responder. Todas las respuestas se mantendrán en completa confidencialidad y usted no está obligado a responder a cualquier pregunta que le cause incomodidad. Usted puede terminar la entrevista en cualquier momento.

2. Un potencial de pérdida de confidencialidad. Haré todo lo posible para asegurar que todas sus respuestas sean completamente confidenciales. Todos los datos serán almacenados en mi ordenador personal protegido por contraseña en una carpeta cifrada y protegida por contraseña. Eliminaré toda la información de identificación de las transcripciones y otros documentos de su participación en este estudio. Asignaré seudónimos a todos los participantes y se mantendrá una clave del seudónimo en un archivo protegido por contraseña. Nunca utilizaré su nombre o cualquier otra información de identificación, o el nombre de Vista Unified School District en ninguna publicación o presentación. Voy a protegercualquier riesgo de pérdida de confidencialidad mediante el uso de seudónimos para todos los participantes en la investigación, así como los nombres de sus hijos, sus maestros y sus escuelas. Todos los registros se almacenarán en una cuenta de computadora protegida por contraseña accesible solo para mí. Los registros de investigación se mantendrán confidenciales. La Junta de Revisión Institucional de UC San Diego podrá consultar los registros de investigación.

3. Un potencial de sentirse incómodo al responder preguntas de la entrevista. En cualquier momento usted puede negarse a responder una pregunta de la entrevista o me puede instruir el eliminar una parte o la totalidad de la grabación de la entrevista en curso. Por otra parte, usted puede retirar su consentimiento para participar en cualquier momento mientras dure este estudio, en cuyo momento se borrarán todas las grabaciones, y todos los registros de su participación serán destruidos.

Debido a este estudio de investigación, también puede haber riesgos desconocidos que actualmente son imprevisibles. Se le informará de cualquier nuevo hallazgo significativo.

La alternativa a la participación en este estudio es no participar. Las calificaciones de su hijo, la matrícula, y la colocación no se verán afectados en modo alguno por su decisión de participar.

No habrá ningún beneficio directo por su participación en este estudio. Wendy O´Connor, sin embargo, puede aprender más acerca de cómo las escuelas y las familiar utilizan la tecnología como parte de sus prácticas de alfabetización diarias.

La participación en la investigación es totalmente voluntaria. Usted puede negarse a participar, retirarse o negarse a responder preguntas específicas en una entrevista o en una encuesta en cualquier momento sin ninguna sanción. Si decide que ya no desea continuar en el estudio, por favor informe a Wendy O´Connor y yo borraré cualquier evidencia de su participación en este proyecto de investigación. Usted también puede ser retirado del estudio sin su consentimiento si, en cualquier momento, sobre la base de evaluación subjetiva, Wendy O´Connor determina que es en su mejor interés el hacerlo.

Se le informará de cualquier información nueva importante que se encuentre en el curso de este estudio que pueda afectar su deseo de continuar.

En compensación por su tiempo, usted recibirá una tarjeta de regalo de $ 20 por participar en la entrevista.

No habrá ningún costo para usted por participar en este estudio.

Si tiene otras preguntas o problemas relacionados con la investigación, puede ponerse en contacto con Wendy O´Connor llamando al 760-685-4669 o por correo electrónico a wloconno@ucsd.edu. Usted también puede llamar a la Oficina del Programa de Protección de Investigación Humana de UC San Diego (UC San Diego Human Research Protection Program) al (858) 657-5100 para obtener información sobre sus derechos como sujeto de investigación o para reportar problemas relacionados con la investigación.

Por favor imprima esta página como una prueba de su documento de consentimiento.

Al firmar a continuación, usted acepta que Wendy O´Connor le ha explicado este estudio y ha respondido a sus preguntas. Usted se compromete a participar en la parte de la encuesta de este estudio, y si está interesado puede ser seleccionado para participar en una entrevista. Usted puede indicar "si" o "no" a continuación si está interesado en continuar su participación a través de una entrevista. Usted puede indicar marcando "si" o "no" a continuación si está interesado en continuar su participación a través de una entrevista. Si selecciona "No" su participación en esta investigación ha finalizado, y todas sus respuestas se mantendrán en completa confidencialidad. Si selecciona "Si" y es seleccionado para una entrevista, entonces su participación terminará después de la finalización de la entrevista en Junio, Julio, o Agosto de 2016.

_____
Nombre del Participante

_____ _____
Firma del Participante Fecha

_____ _____
Nombre del Investigador Fecha

___Sí, estoy dispuesto a participar en una entrevista

___No, no estoy dispuesto a participar en una entrevista, sin embargo, doy mi consentimiento para utilizar los datos individuales de uso de myON de mi hijo, datos demográficos, datos del Programa Nacional de Almuerzo Escolar, y los datos de STAR Alfabetización Temprana o STAR Lectura, y las respuestas de la encuesta serán incluidas en el estudio. Su participación en esta investigación ha finalizado, y los datos de su hijo y las respuestas a esta encuesta se mantendrán en completa confidencialidad.

Usted ha recibido una copia de este consentimiento para guardarla.

Appendix L: Audio Recording Release Consent Form

UNIVERSITY OF CALIFORNIA, SAN DIEGO
Audio Recording Release Consent Form

As part of this project, an audio recording will be made of you during your participation in face-to-face interviews. Please indicate below by writing your initials next to the uses of these audio recordings to which you are willing to consent. This is completely voluntary and up to you. In any use of the audio recording, your name will not be identified. You may request to stop the recording at any time or to erase any portion of your recording.

1. The audio recording may be studied by the researcher for use in the research project. _____
initials

2. The audio recording may be used for scientific publications. _____
initials

3. The audio recording may be reviewed in presentations to fellow researchers interested in the study of *Sociocultural Early Literacy Practices of the School and Home Context: The Role of a Digital Library*. _____
initials

You have the right to request that the recording be stopped or erased in full or in part at any time.

Please sign to confirm that you have read the above description and give your consent for the use of audio recording as indicated above.

_____
Signature Date

_____
Witness Date

Formulario de Consentimiento para Publicación de Grabación de Audio

UNIVERSITY OF CALIFORNIA, SAN DIEGO
Formulario de Consentimiento para Publicación de Grabación de Audio

Como parte de este proyecto, se hará una grabación de audio de usted durante su participación en las entrevistas en persona. Por favor indique a continuación escribiendo sus iniciales al lado de los usos de estas grabaciones de audio para las cuales usted está dispuesto a dar su consentimiento. Esto es completamente voluntario y depende de usted. Su nombre no será identificado en ningún uso de la grabación de audio. Usted puede solicitar que se detenga la grabación en cualquier momento o que se borre cualquier parte de la grabación.

1. La grabación de audio puede ser estudiada por el investigador para su uso en el proyecto de investigación. _____
iniciales

2. La grabación de audio se puede utilizar para publicaciones científicas. _____
iniciales

3. La grabación de audio puede ser revisada en presentaciones a compañeros investigadores interesados en el estudio de las *Prácticas Socioculturales de Alfabetización Temprana del Contexto Escolar y del Hogar:*
El Papel de una Biblioteca Digital. _____
iniciales

Usted tiene el derecho de solicitar que la grabación sea detenida o borrada en parte o en su totalidad en cualquier momento.

Por favor firme para confirmar que ha leído la descripción anterior y da su consentimiento para el uso de la grabación de audio como se indicó anteriormente.

_____
Firma Fecha

_____
Testigo Fecha

Appendix M: Dissertation Timeline

Dates	Actions
May 2016	• Administer surveys • Data reduction and analysis of survey responses • Identify interview participants based on survey responses
May-June 2016	• Conduct teacher and school personnel interviews • Transcribe interviews
June-August 2016	• Conduct parent interviews • Transcribe Interviews
September-December 2016	• Data Reduction & Analysis
January-April 2017	• Write findings and conclusions • Revise chapters 1-3
May 2017	• Defend/Revise Dissertation

Appendix N: Coding Matrices

DOMAIN: Non-digital Literacy Events		
Classroom Context	**Schoolwide Context**	**Home Context**
Factor **Classroom Literacy Practices- Non-digital** **CLP-ND** • Teacher mentions non-digital literacy events. **Subfactors** **Whole group** **CLP-ND-WG** • Teacher mentions whole group literacy event that does not include myon (ex. read aloud, circle time, calendar, share a book, poetry, unit of study, research, phonemic awareness, phonics, spelling, fluency) **Small group rotation** **CLP-ND-SG** • Teacher mentions students working in small groups on literacy activities (ex. guided reading, spelling support, word work, reading, etc.) **Independent Reading** **CLP-ND-IR** • Teacher mentions students independently	**Factor** **Schoolwide Context-Support Staff-Community Liaison** **SWC-SS-CL** • Mentions parent services provided specifically by the community liaison. **Subfactors** **Parent Library** **SWC-SS-CL-PL** • Community Liaison offers a library for parents to check-out books on parenting and/or to read with their child. **English Class** **SWC-SS-CL-EC** • Community Liaison supports parent by teaching an English class for Spanish speaking parents.	**Factor** **Home Literacy Practices- Non-digital** **HLP-ND** • Parent mentions non-digital literacy events. **Subfactors** **Writing** **HLP-ND-WR** • Parent mentions student writing on whiteboard, book reports, thank you cards, birthday cards. **Storytelling** **HLP-ND-ST** • Parent mentions Storytelling (real and fantasy). **Book Activity** **HLP-ND-BA** • Parent mentions activity after reading a book- act out story, write about a book, picture of a book, write on whiteboard. **Conversations** **HLP-ND-CV** • Parent mentions conversations about life events, about books, Q

reading traditional books. **Writing** **CLP-ND-WR** • Teacher mentions writing (shared, guided, journal, writing workshop).		& A on a topic. **Find Books** **HLP-ND-FB** • Parent mentions where they find books- library, book fair, book store, books from school. **Read** **HLP-ND- RD** • Parent mentions reading to include bedtime story, picture books, collections, Spanish, specific topics/titles, read with parent, sibling, alone, in the car. **Parent Support** **HLP-ND-PS** • Parent mentions some way that they support their child with literacy development. Example: If my child struggles with a word I will ask them to sound it out first. If they don't get it then I will say the word for them.

DOMAIN: myON Literacy Events		
Classroom Context	**Schoolwide Context**	**Home Context**

Factor	Factors	Factor
Classroom Literacy Practices-myON **CLP-MY** • Teacher makes a general statement about the use of myON in classroom. **Subfactors** **myON Assessments** **CLP-MY-AS** • Teacher mentions sing myON assessments to include the benchmark assessments or myOn quizzes or using myON as part of an assessment, but not the assessments built into myON (AR, Unit of Study, etc.). **myON Tools** **CLP-MY-MT** • Teacher mentions use of myON tools with students (voice, highlighting, journal). **myON Student Grouping** **CLP-MY-GR** • Teacher mentions use of myON with student groupings such as whole group small group, partners, or individual. **Sub-Subfactors** **Individual** **CLP-MY-GR-ID** • Individuals work on myON **Partners** **CLP-MY-GR-PT** • Partners work on	**Schoolwide Context- myON-Collaboration** **SWC-MY-CO** • Detail about collaborating with a colleague in reference to myON. **myON Assessments** **CLP-MY-AS** • Support Staff mentions using myON assessments to include the benchmark assessments or myOn quizzes or using myON as part of an assessment, but not the assessments built into myON (AR, Unit of Study, etc.).	**Home Literacy Practices-myON** **HLP-MY** • Parent mentions the general use of myON in home. **SubFactors** **myON Assessments** **HLP-MY-AS** • Parent mentions child using myON assessments to include the benchmark assessments or myOn quizzes or using myON as part of an assessment, but not the assessments built into myON (AR, Unit of Study, etc.). **myON Discussion** **HLP-MY-DI** • Child discusses what they read on myON with someone in the family **myON Tools** **HLP-MY-MT** • Parent mentions use of myON tools with student (voice, highlighting, journal). **myON-Read Independently** **HLP-MY-IN** • Student reads independently on myON. **myON Student Initiated Usage** **HLP-MY-SI** • Student initiated use of myON.

myON **Small groups** **CLP-MY-GR-SG** • Small groups work on myON **Whole group** **CLP-MY-GR-WG** • Whole group works on myON with teacher facilitating. **Subfactor** **myON to Differentiate** **CLP-MY-DI** • Teacher describes use of myON to differentiate instruction, reading levels, interest. **Sub-Subfactor** **Struggling Readers** **CLP-MY-DI-SR** • Teacher describes use of myON to differentiate instruction, reading levels, interest for struggling readers. **Advanced Readers** **CLP-MY-DI-AD** • Teacher describes use of myON to differentiate instruction, reading levels, interest for advanced readers. **Factor** **myON Student challenges** **CLP-MY-SC** • Teacher mentions student challenges with using myON. **myON Student initiated usage** **CLP-MY-SI** • Teacher provides		**myON- Read Specific Topics** **HLP-MY-TO** • The use of myON to learn about topics such as animals, dinosaurs, etc. **myON-Beyond Homework** **HLP-MY-BY** • Use of myON outside of homework. **myON-Sibling** **HLP-MY-SB** • Use of myON with sibling. **Parent Support** **HLP-MY-PS** • Parent mentions some way that they support their child with literacy development while using myON. Example: If my child struggles with a word I will ask them to sound it out first. If they don't get it then I will say the word for them.

details about how students choose to use myON. **myON- Listen to Reading** **CLP-MY-LI** • Use of myON for listening rotation. **myON- Integrated w/Content** **CLP-MY-IN** • Use of myON integrated with Social Studies, Science, Character Education etc. **myON- Practice Reading Standards** **CLP-MY-RS** • Use of myOn to practice a reading standard taught through another book. Examples: summary; character traits; etc. **myON- Read Aloud** **CLP-MY-RA** • use of myON for classroom read aloud. **myON-ELA Unit of Study** **CLP-MY-EU** • use of myON as part of an ELA unit of study. **myON- independent reading** **CLP-MY-IR** • use of myON for independent reading. Example: students search for their own book by topic, lexile, title, or select from teacher list **myON- Digital Daily 5** **CLP-MY-DD** • use of myON during Digital Daily 5 rotation (read to self, read with teacher, read with		

partner, word work, writing) **myON Technology Instruction CLP-MY-TI** • Technology instruction in regards to using myON **myON-library of resources CLP-MY-LB** • Uses myON like visiting a library and checking out books. **myON for non-fiction CLP-MY-LB-NF** • Teacher specifically calls out accessing myON for non-fiction text. **myON projects CLP-MY-LB-BS** • Teacher assigns book sets/projects available on the students' dashboard		

DOMAIN: Other digital programs		
Classroom Context	**Schoolwide Context**	**Home Context**
Factor **Classroom Literacy Practices-Other Digital programs CLP-OD** • Teacher mentions student use of another digital program besides myON, Smarty Ants, Raz-Kids, or Lexia.	**Factors** **Classroom Literacy Practices-Other Digital programs CLP-OD** **And** **Home Literacy Practices- Other Digital Programs HLP-OD** • Support Staff mentions student use of another digital program besides	**Factor** **Home Literacy Practices-Other Digital Programs HLP-OD** • Parent mentions student use of another digital program besides myON, Smarty Ants, Raz-Kids, or Lexia. **Subfactors**

Subfactors **SmartyAnts** **CLP-OD-SA** • Student use of SmartyAnts. **Raz-Kids** **CLP-OD-RK** • Student use of Raz-Kids. **Lexia** **CLP-OD-LE** • Student use of Lexia.	myON, Smarty Ants, Raz-Kids, or Lexia in classroom or home. **Subfactors** **SmartyAnts** **CLP-OD-SA** **HLP-OD-SA** • Student use of SmartyAnts. **Raz-Kids** **CLP-OD-RK** **HLP-OD-RK** • Student use of Raz-Kids. **Lexia** **CLP-OD-LE** **HLP-OD-LE** • Student use of Lexia.	**SmartyAnts** **HLP-OD-SA** • Student use of SmartyAnts. **Raz-Kids** **HLP-OD-RK** • Student use of Raz-Kids. **Lexia** **HLP-OD-LE** • Student use of Lexia.

DOMAIN: Perceptions and Concerns		
Classroom Context	**Schoolwide Context**	**Home Context**
Factors **Balance** **CLP-BA** • Teacher desire to include both digital and traditional books. **Screen time** **CON-ST** • Teacher mentions screen time concerns. **Teacher Reflection** **CLP-MY-TR** • Teacher reflects on ways they would like to refine use of myON in the	**Factors** **Balance** **CLP-BA** • Support Staff desire to include both digital and traditional books. **Screen time** **CON-ST** • Support staff mentions screen time concerns. **Support Staff Negative Statement** **SWC-SS-NS** • Support Staff makes negative statement. **Support Staff Positive**	**Factors** **Balance** **HLP-BA** • Parent desire to include both digital and traditional books. **Parent Negative Statement** **HLP-NS** • Parent makes negative statement. **Parent positive statement** **HLP-PS** • Parent makes positive statement. **Subfactors** **Parent positive perception myON** **HLP-PS-PM**

future. **Teacher Positive Statement** **CLP-PS** • Teacher makes positive statement. **<u>Subfactors</u>** **Teacher positive perception myON** **CLP-PS-TM** • Teacher makes positive statement about their perception of myON. **Student positive perception myON** **CLP-PS-SM** • Teacher makes positive statement about student's perception of myON **<u>Factors</u>** **Teacher Negative Statement** **CLP-NS** • Teacher makes negative statement. **<u>Subfactors</u>** **Teacher negative perception myON** **CLP-NS-TM** • Teacher makes negative statement about their perception of myON. **Student negative perception myON** **CLP-NS-SM** • Teacher makes negative	**Statement** **SWC-SS-PS** • Support Staff makes positive statement. **<u>Subfactor</u>** **Student positive perception myON** **SWC-SS-PS-SM** • Support Staff makes positive statement about student's perception of myON	• Parent makes positive statement about their perception of myON. **Student positive perception myON** **HLP-PS-SM** • Parent makes positive statement about student's perception of myON **<u>Factors</u>** **Home Literacy Practices-Concerns** **HLP-CO** • Parent Concerns **<u>Subfactors:</u>** **Parent Rules** **HLP-CO-PR** • Parent mentions a rule or expectation regarding literacy. For example: My child reads for 30 minutes every day as soon as they get home from school. **Concerns-technology** **HLP-CO-TE** • Parent concerns about technology **<u>Sub-Subfactors</u>** **Screen time** **HLP-CO-TE-ST** • Parent concerns about too much screen time **Internet safety** **HLP-CO-TE-IS** • Parent concerns about safety when logged on to internet **Device** **HLP-CO-TE-DE** • Parent concerns about access to device or navigating device

statements about student's perception of myON		

DOMAIN: School and District Technology Support		
Classroom Context	**Schoolwide Context**	**Home Context**
Factor **Schoolwide Support-Support Staff** **SWC-SS** • Mention support from ASES, Community Liaison, or AM/PM **Subfactors** **ASES Teacher Support** **SWC-SS-AP-TS** • Mentions ways ASES supports teachers (eg. notes about student progress, liaison with parents, extra time for child to work on a particular program, etc.) **Community Liaison Teacher Communication** **SWC-SS-CL-TC** • Support staff mentions ways Community Liaison communicates with teachers regarding parent who is struggling to help child at home.	**Factor** **Schoolwide Support-Support Staff** **SWC-SS** • Mention support from ASES, Community Liaison, or AM/PM **Subfactors** **Support Staff-ASES Program** **SWC-SS-AP** • Mentions parent and student services provided in the ASES after school program. A free service provided for students requiring remediation in reading and/or math. **Support Staff-Community Liaison** **SWC-SS-CL** • Mentions services provided by Community Liaison. **Support Staff-AM/PM Program** **SWC-SS-AM** • Mentions services provided by AM/PM program. A paid child care program for students to attend before school and/or after school **Factor** **Schoolwide Support- School or District** **SWC-SD** • School or District initiative to support technology at	**Factors** **Technology Access** **HLP-TA** • Mentions access to technology and/or internet **Schoolwide Support-Support Staff** **SWC-SS** • Mention support from ASES, Community Liaison, or AM/PM **Subfactor** **Parent Technology Class** **SWC-SS-CL-PT** • Community Liaison supports parent by teaching a technology class for parents. **Student technology programs** **SWC-SS-CL-TE** • Community Liaison supports parent in helping their child with technology programs.

Schoolwide Support- School or District **SWC-SD** • School or District initiative to support technology at home: (eg. Notes home; website; family night; Back to School; Technology night etc. **<u>Subfactor</u>** **Teacher Professional Development/ Support** **SWC-SD-PD** • Mention of professional development or support provided for teachers from school or district **<u>Sub-Subfactors</u>** **Content Support Resource Teacher** **SWC-SD-PD-RT** • PD or support provided by district resource teacher. **Literacy PD/Support** **SWC-SD-PD-LI** • Literacy PD or support provided for teachers. **Technology PD/Support** **SWC-SD-PD-TE** • Technology PD or support provided for teachers. **myON PD/Support** **SWC-SD-PD-MY** • MyON Pd or support provided for teachers.	home: (e.g. Notes home; website; family night; Back to School; Technology night etc. **<u>Subfactor</u>** **Infrastructure** **SWC-SD-IF** • Mention of access to devices and internet **<u>Sub-subfactors</u>** **Lack of Access** **SWC-SD-IF-LA** • Mention lack of access either in classroom, school, or home contexts **San Diego Computer2Kids and Cox Connect for families** **SWC-SD-IF-CC** • Mention of program in which low income families are able to purchase refurbished computers at a low cost and sign-up for internet access at a low cost. The program is in partnership with the school district.	

DOMAIN: Mediating Factors Between School and Home (Homework, Language, Parent Communication)		
Classroom Context	Schoolwide Context	Home Context
Factor **Mediator-Homework** **MED-HW** • Homework **Subfactors** **Mediator-Reading Homework** **MED-HW-TRT** • Teacher mentions details about reading traditional books for homework. **Mediator-myON Homework** **MED-HW-MYT** • Teacher mentions details about reading myON for homework. **Factor** **Classroom Literacy Practices-Language** **CLP-LA** • Teacher mentions use of language other than English. **Factor** **Mediator-Parent Communication** **MED-PC** • Parent or teacher or support staff mentions communication with parents. **Subfactors** **Mediator-Parent Communication- Technology** **MED-PC-TET**	**Factor** **Mediator-Homework** **MED-HW** • Homework **Subfactors** **Mediator-Reading Homework** **MED-HW-TRS** • Support Staff mentions details about reading traditional books for homework. **Mediator-myON Homework** **MED-HW-MYS** • Support Staff mentions details about reading myON for homework. **Factor** **Mediator-Language** **MED-LA** • Language Barrier Concerns when discussing a language different than English **Factor** **Mediator-Parent Communication** **MED-PC** • Parent or teacher or support staff mentions communication with parents. **Subfactors** **Mediator-Parent Communication- Technology** **MED-PC-TES** • Support Staff mentions communication with	**Factor** **Mediator-Homework** **MED-HW** • Homework **Subfactors** **Mediator-Reading Homework** **MED-HW-TRP** • Parent mentions details about child reading traditional books for homework. **Mediator-myON Homework** **MED-HW-MYP** • Parent mentions details about child reading myON for homework. **Factor** **Home Literacy Practices-Language** **HLP-LA** • Parent mentions use of language other than English in the home. **Factor** **Mediator-Parent Communication** **MED-PC** • Parent or teacher or support staff mentions communication with parents.

• Teacher mentions communication with parents about technology. **Mediator-Parent Communication- Reading MED-PC-TRT** • Teacher mentions communication with parents about reading. **Mediator-Parent Communication- myON MED-PC-MYT** • Teacher mentions communication with parents about myON.	parents about technology. **Mediator-Parent Communication- Reading MED-PC-TRS** • Support Staff mentions communication with parents about reading. **Mediator-Parent Communication- myON MED-PC-MYS** • Support Staff mentions communication with parents about myON. **Mediator-Parent Communication- school MED-PC-SC** • School communication with parents is mentioned.	**<u>Subfactors</u>** **Mediator-Parent Communication- Technology MED-PC-TEP** • Parent mentions communication from school about technology. **Mediator-Parent Communication- Reading MED-PC-TRP** • Parent mentions communication from school about reading. **Mediator-Parent Communication- myON MED-PC-MYP** • Parent mentions communication from school about myON.