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CURRICULUM & TEACHING STUDIES | RESEARCH ARTICLE

A multi-method investigation of literacy and language practices in Mexican early childhood programs

Laura M. Justice^{1*}, Gloria Yeomans-Maldonado¹, Jorge Gonzalez², Alain Bengochea^{1§} and Anita McCormick³

Abstract: This study was designed to examine the literacy and language development processes and practices used in Mexican preschools. Participants were 18 early childhood teachers from three schools selected to represent the range of available programming. Research methods included focus groups, teacher questionnaires, and classroom observations. Results suggested that classrooms mostly had narrative books with few other genres, and that displaying the alphabet and children's names were common practices. Teachers indicated a strong reliance on bottom-up instructional approaches and direct skill instruction. These findings contribute to our understanding of preschool literacy and language practices of Spanish-speaking children living in Mexico.

Subjects: Language & Literacy; Early Childhood; Pedagogy; Mexico

Keywords: teaching methods; mexico; early educators; language practices; preschool

1. Introduction

In many countries, improving and ensuring young children's access to preschool participation is a central goal of the national educational agenda. In some countries, universal participation of 3- to 5-year-olds in formal education has become the norm, as is the case in Mexico which launched universal preschool programming in 2004 following legislation in 2001 making one year of preschool participation compulsory for all children. The Law of Obligatory Pre-Schooling further required that by 2009, all children attend preschool starting at three years of age and that each Mexican state fund the expansion of these slots (Organization for Economic Co-Operation and Development [OECD], 2017). Provision for and expansion of preschool education in Mexico and elsewhere are grounded in two social-policy endeavors: First, efforts to increase the full labor participation of the parents of young children, especially women, and second, efforts to increase the educational achievement of children through early participation in formal schooling. Regarding the former, current estimates indicate that nearly one-half of women in Mexico are currently participating in the labor market, an increase from about one-third of women in 1990 (The World Bank, 2017), which

ABOUT THE AUTHORS

Our research group actively conducts research in Mexico, with a consistent focus on advancing practices that enhance young children's literacy skills. This research aligns with other work in which we are engaged, involving scaling up of literacy programming in eastern Mexico and engaging with parents to improve literacy practices in the home.

PUBLIC INTEREST STATEMENT

Improving the early literacy skills of children in low- and middle-income countries is a pressing global issue. This study provides a first-person account of teacher practices and beliefs about early literacy instruction in Mexico using focus-group methodology. By understanding the current state of teacher practices and beliefs, initiatives can be pursued to enhance practices to improve children's literacy outcomes.

may reflect investments in preschool and other social policies designed to elevate labor-force participation. Regarding the latter, commonly cited experimental evidence suggests longstanding benefits of preschool participation for young children, especially those experiencing risk (Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002).

Over the last decade, research and policy has increasingly emphasized the potential for preschool programs to improve children's long-term reading achievement by introducing explicit instructional goals and strategies directed toward early literacy and language development (Chatterji, 2006; Jackson et al., 2007; Scott-Little, Kagan, & Frelow, 2006). Developmental perspectives viewed reading and literacy development as beginning when children entered formal primary instruction, typically between ages 5 and 7 years, corresponding to kindergarten and first grade. Within the context of primary schooling, children were systematically taught the skills they needed to become efficient decoders and comprehenders of text (Adams, 1994). The significant expansion in children's participation in preschool programs prior to primary-school enrollment, as well as expanding scientific evidence of the strong predictive relations foundational literacy and language skills acquired when children are between three and five years of age and future reading skills (e.g. Storch & Whitehurst, 2002), has led to an intense interest in the nature and quality of the literacy and language environments of preschool programs. That is, researchers have asked whether preschool environments contain the classroom *structures* that appear to positively influence young children's literacy growth, such as access to writing materials, writing centers, and a rich inventory of storybooks within a classroom library (BLINDED). Examinations of the literacy-related environment of preschool settings in the United States have shown a substantial variability in children's access to such structures, and that this variability is associated with children's literacy development during preschool participation (see Farran, Aydogan, Kang, & Lipsey, 2006). Consequently, federal and state investments within the US have been directed toward enhancing children's access to classroom literacy structures viewed as especially important to young children's language and literacy growth.

At the same time, researchers have also asked whether preschool environments contain the classroom *processes* that contribute positively to children's literacy and language development. Classroom processes represent the proximal interactions that children experience within preschool environments that help them develop new knowledge and understanding relevant to early literacy development (NICHD Early Child Care Research Network, 2002). Those interactions especially important to young children's literacy and language growth in preschool settings are those that provide children with explicit, recurring experiences to acquire critical early literacy and language competencies, including phonological awareness (sensitive to sound patterns in spoken language), print awareness (knowledge of the forms and functions used in written language), vocabulary knowledge (breadth and depth of word meanings), and narrative comprehension (understanding of stories and expository events). For instance, evidence shows that reading books to children in ways that explicitly calls attention to the forms and functions of print within books is an important proximal process for increasing children's print knowledge (BLINDED). Likewise, research also finds that explicitly defining novel vocabulary words for children in classroom conversations is an important mean for accelerating children's vocabulary knowledge (BLINDED). There is currently considerable attention being directed toward understanding the nature of language- and literacy-supporting processes in preschool classrooms (BLINDED), and identifying avenues to enhance these when indicated, often-times through professional development of preschool teachers

Currently, there is relatively limited understanding of the nature of supportive classroom structures and processes outside of English-speaking contexts, especially those in North America. It is well acknowledged that preschool teachers' beliefs and practices are highly affected by and intertwined with the cultural context in which they work (Sandvik, van Daal, & Adèr, 2014), thus it is essential that research focus on language and literacy practices within and across various cultural contexts rather than drawing generalizations from research conducted in North America. Our intent in the present paper is to provide one of the first examinations, of which we are aware, of the processes and practices utilized in Mexican preschool programs specific to children's literacy and

language development. Our interest was to provide an initial empirical examination of structures available within Mexican preschool classrooms, based on direct observation of classroom structures, as well as classroom processes as identified by preschool teachers working in the Mexican context. Such work is complement to but distinct from the emerging body of research studies conducted within the United States that look at the preschool experiences of Spanish-speaking children within the US (e.g. Sawyer et al., 2016), many of whom have emigrated from Mexico. While that work is influential for helping us understand the early developmental trajectories of Mexican children within the US, the cultural context in which such work takes place is that of the United States and thus cannot be readily generalized to preschools in Mexico. To this end, research aims addressed in this study are twofold: (1) to describe structures within early childhood classrooms in Mexico that are believed to support children's literacy and language development, and (2) to describe processes used in early childhood classrooms, as guided by childhood educators reported literacy goals, skill priorities, instructional approaches, and materials. With these dual aims, this multi-method investigation employed both systematic observations of classroom structures and focus groups with educators working in private and public preschool programs.

2. Methods

2.1. Participants

This study involved three preschool programs purposefully selected to represent a crosscut of socio-economic conditions in the capital and largest city of a relatively small state (population ~2,000,000) in central Mexico. Two of the preschools were private schools funded primarily by parent tuition, whereas the third was a public school. All schools followed the state-mandated preschool education guidelines.

Each program was relatively small, containing between three and six classrooms. The two private programs served 3- to 5-year-olds in three or four classrooms, whereas the public program served 4- to 5-year-olds in six classrooms; in total, the programs operated 13 preschool classrooms. Classrooms serving 3-year-olds tended to be smaller in size, serving between 6 and 12 children, whereas those serving 4- and 5-year-olds were larger, ranging from 12–25 children. The school day was six hours in the private program (8AM–2PM), and 3.5 h in the public program (8:30AM–12:00PM).

A total of 18 early childhood educators from these programs participated at the invitation of their school administrators. The educators self-selected into the study and provided written, informed consent to participate. The 18 educators were all female, native Spanish speakers. On average, the educators had nearly 11 years of teaching experience ($M = 10.7$, $SD = 9.2$, range 1 to 27 years). All teachers were certified by the state to teach at this level.

The educators taught in three different types of early childhood programs, purposefully selected to represent the range of programming available in the community (see Table 1): (1) private, tuition-based program in a middle-class neighborhood (School A), (2) private, tuition-based with government support program in a working-class neighborhood (School B), and (3) public, government-supported program in a working-class neighborhood (School C).

2.1.1. School A

Three classrooms and four teachers represented School A, a private, tuition-based program in a middle-class neighborhood. The teachers averaged 8 years of experience ($SD = 11.2$, range 1 to 25). School A is located in the suburbs of the city in a well-established neighborhood of mixed commercial and single-family homes. The majority of the businesses in the area are small shops, boutiques and local restaurants, although there are also banks, hotels and larger shopping centers on the boulevards crossing the neighborhood. This combination of businesses and homes creates a sense of a self-sufficient community that allows the residents to meet all their needs within walking distance of their homes. Surrounding this neighborhood on one side, an industrial park with several

Table 1. Descriptive data for participating schools (n = 3), classrooms (n = 13) and teachers (n = 18)

	<i>n</i>	<i>M (SD) or %</i>
<i>Number of classrooms</i>		
School A	4	22%
School B	8	44%
School C	6	33%
Class size		19.4 (11.6)
Teachers' Years of Experience		10.7 (9.2)
Teachers' Years of Experience-Preschool		10.0 (9.9)
<i>Highest degree earned</i>		
Technical	3	16.6%
Bachelors	14	77.7%
Masters	1	5.5%
<i>Knows a second language</i>		
Yes	5	29.4%
No	12	70.6%
Missing	1	5.6%
<i>Use a specific reading curriculum</i>		
Yes	9	50.0%
No	8	44.4%
Missing	1	5.6%
<i>Professional development in early reading in the last 3 years</i>		
Yes	2	11.1%
No	7	38.8%
Missing	9	50.0%

large international companies provides employment to many residents. This employment is generally at the supervisory or managerial level, which supposes at least a secondary school education, and more likely a college degree. Most families living in this neighborhood inhabit two-story single-family dwellings surrounded by walls or fences. Many families have two working parents, which makes daycare and preschool a necessity and the quality of the preschools an important consideration. There are several private preschools in the neighborhood. School A is a bilingual school where children are exposed to English every day for at least two hours, and receive instruction both in English and in Spanish. The three classrooms in this school have between 6 and 18 children (the smaller class size serves 3-year-olds), with one teacher and no aide.

2.1.2. School B

Four classrooms and eight teachers represented School B, a private, tuition-based but with government support program in a working-class neighborhood. The teachers averaged 8 years of experience ($SD = 6.9$, range 1–17). The school is located in a neighborhood surrounded by a large well established industrial park and new low-income housing developments. The neighborhood is a long-established “colonia” made of small single-family dwellings and small family-owned businesses such as convenience stores, mechanic shops, and eateries. The inhabitants of this area are mostly workers in the factories surrounding it, and often have lived in the same house for several generations. It is not unusual to have multiple generations living in the same house, sharing responsibilities and child-rearing tasks. Many of the males in this neighborhood work in the surrounding factories as operators or line workers. School B is a privately owned preschool that charges low tuition to families, but also receives a subsidy from the state government for serving low-income families. This

subsidy is used to maintain the school, buy materials, and provide food for students who stay beyond the 5 h of regular preschool instruction, with some children of working parents staying at school until 6 pm. Most frequently, the educational level of parents in this neighborhood is primary level and maybe some secondary school. The three classrooms in this school have between 16 and 18 children, with one teacher and an aide.

2.1.3. School C

Six classrooms and six teachers represented School C, a public, government-supported program in a working-class neighborhood. The teachers were the most senior across the three programs, averaging 16 years of experience ($SD = 9.5$, range 2–27). This school is located in a neighborhood that was, until about 15 years ago, the town of a large “hacienda,” or ranch on the outskirts of the city. It is in the middle of what is now a major industrial area, thus surrounded by large factories. The neighborhood has its own church, market and schools and, in many ways, is largely self-contained. Families live in small two-story houses where several generations live together in one house. It is common for the older females in the family to take care of the children while the younger go to work in retail or service. The preschool is made of two buildings with 6 classrooms and a library. Children attend preschool from 9 am until noon each day, and cannot stay late since most teachers work a second shift in another school. The school is tuition free, but occasionally the parents are asked to contribute materials such as paper or glue. Most classrooms in this school have between 20 and 30 students with one teacher.

2.2. Data collection

Data collection took place during a five-day period in the fall of the academic year. The research team (the five co-authors) visited each school for an approximately 3 h period. During this period, a classroom observation was conducted in each classroom in the school by the first author, simultaneous to a focus group being conducted with the participating teachers in each school, facilitated by four of the authors working together. These activities took place after the school day when children were not present. Whereas it would have been ideal to observe in each school when the children were present, our goal in conducting focus groups with *all* teachers per school mandated that the research activities take place outside of instructional time.

2.2.1. Classroom observation

A classroom observation was conducted in each classroom by the first author who has extensive experience and reliable implementation of the tool utilized. The observation took place with no children, teachers, or administrators present. Specifically, in this study we used the *Classroom Literacy Observation Profile* (CLOP; McGinty, & Sofka, 2009), which is designed to document the quantity of structural literacy supports within preschool settings (BLINDED). This observation checklist assesses a range of literacy-related materials and activities within the classroom, such as the quantity and variety of books, literacy-related games (e.g. puzzles), writing materials and writing center (e.g. crayons, paper, stencils), environmental print (e.g. posters, labels), and child-writing productions (e.g. dictations).

The CLOP contains a total of 21 items, which are scored categorically. Five items are scored dichotomously based on absence or presence (e.g. “Are there writing portfolios in the classroom?”) and the remainder are scored on a scale designed to capture range of materials present. For example, the classroom library is observed (if one is present in the classroom) and the number of books within the library are coded on a scale of 0 to 4 with specific anchors provided (0 = fewer than five books, 4 = 26 + books). Because children were not present in the classroom during the observation, items 18–21 included in the CLOP were not scored since these items require direct observations of children’s behaviors during center time.

A recent investigation of the CLOP (Dynea et al., 2016) as implemented in 245 preschool classrooms in the United States explored the dimensionality of the tool, so as to determine whether there are separable dimensions of the literacy environment in preschool classrooms. This study found that

the literacy environment is best conceptualized as five dimensions: variety of books, writing materials, literacy displays, literacy-related materials, and literacy-related technologies.

2.2.2. *Focus groups method*

Three focus groups, averaging 60 min each, were conducted at each of the three different preschools. All focus groups were conducted in Spanish and were mostly facilitated by the fifth author who had an established rapport with the schools' principals and teachers. All teachers and principals who participated in the focus groups filled out consent forms and were assured of the confidentiality of their responses, which were audio recorded with their prior permission. Focus groups were guided by a scripted protocol, which included the overall goal of the conversation (i.e. to learn about different aspects of language and literacy in the classroom), as well as six main questions which served as general prompts. These six main questions included: (1) the goals of language and literacy for the classroom, (2) deciding on the skills to target for teaching, (3) the types of instructional resources that teachers use to support the skills that are taught, (4) access to materials to help students learn language and literacy skills, (5) skills that teachers want children to have by the end of the year, and (6) who decides what to teach in the classroom. At the start of each focus group, the facilitator clarified her role as that of a listener whose function was solely to facilitate the conversation, underscoring that she would not be participating in the discussion nor would she be offering any feedback. After reading each of the six prompts, the facilitator took extra care not to lead the conversation in any direction, and moved only to the subsequent prompt when teachers' discussions were fully abated. To thank each of the participants for their time, we distributed between 3 and 4 children's books at the end of the focus groups.

2.2.3. *Focus groups coding*

Audio recordings of the focus groups were all transcribed verbatim first in Spanish and subsequently translated into English by a professional transcriber who was hired from a professional company that specializes in transcribing and translating foreign-language documents. In addition to this, the third author checked 20% of all transcriptions for accuracy. The second author, a native Spanish-speaker and an advanced doctoral student who was also present during the focus groups, was responsible for coding the content of the Spanish transcriptions of the focus groups. The purpose of coding was to describe processes used in early childhood classrooms, as guided by childhood educators reported literacy goals, skill priorities, instructional approaches, and materials, via identification of dominant themes and sub-themes at the macro-level and derived from more granular codes.

In coding the transcribed focus groups, no coding scheme was developed a priori; rather, we analyzed the focus-group data through emergent and axial coding (Strauss & Corbin, 1990). Initially, granular codes were applied to the transcripts via careful and repeated reading of the Spanish transcripts, with Atlas.ti (version 5.1) qualitative analysis software used for code application. Once all data were coded, we used *hierarchical card sorting* (HCS) to help with the organization and development of themes and subthemes of the coded data; the authors agreed a priori that identification of a theme was contingent on a minimum of 4 codes in order to be interpreted. The identification of themes and subthemes based on the coded data was jointly developed by the first and second author during multiple iterative examinations of the data. Member checks of the themes that emerged from the coded data were conducted by the fifth author with a sample of 6 teachers from the three participating schools. All teachers agreed that the synthesis of the information that emerged from the coded data depicted an accurate representation of their opinions during the focus groups.

2.2.4. *Teachers' questionnaires*

When focus groups concluded, teachers were asked to fill out a short 10 min questionnaire that asked about classroom characteristics such as a type of classroom (i.e. regular, bilingual, Montessori), number of hours of preschool instruction per day, number of students in the classroom, number of years of teaching experience, as well as professional development. Teacher questionnaires were administered with paper-and-pencil, double-entered into an electronic database, and checked for quality control.

3. Results

3.1. Literacy and language structures in classrooms

The first research aim sought to describe the nature of structures present in Mexican classroom specific to supporting children’s literacy and language development. This aim was addressed by descriptively examining the observational data from the 13 classrooms as available from the items of the CLOP, a systematic tool for examining the quantity of structural literacy supports in early childhood classrooms.

The first dimension of the environment examined was availability and variety of books, as examined by 8 items (see Table 2). The primary item of interest was the number of books available in the

Table 2. Book availability within classrooms (n = 13)

	<i>n</i>	Percentage (%)
<i># of books in classroom library</i>		
0-5	5	38
6-9	1	8
10-15	1	8
16-25	0	0
26+	6	46
<i>Variety of books in classroom library</i>		
<i>Narrative picture books</i>		
0-1	4	31
2-3	1	8
4+	8	61
<i>Electronic books</i>		
0-1	13	100
2-3	0	0
4+	0	0
<i>Information books</i>		
0-1	10	77
2-3	1	8
4+	2	15
<i>Alphabet books</i>		
0-1	12*	100
2-3	0	0
4+	0	0
<i>Poetry/Rhyme books</i>		
0-1	11	85
2-3	2	15
4+	0	0
<i>Concept book</i>		
0-1	12	92
2-3	0	0
4+	1	8
<i>Books on current theme</i>		
0-1	12	100
2-3	0	0
4+	0	0

*This item was inadvertently not scored in one classroom, thus the total sample size for this item is 12 classrooms.

classroom library, which ranged considerably across the classrooms. In six classrooms (46% of the sample), more than 26 books were available in the classroom library, whereas in the remainder there were fewer, with 38% of the sample (five classroom) containing five or fewer books. Subsequent to this were seven items that examined the variety of books in the classroom, encompassing narrative, electronic, information, alphabet, poetry/rhyme, concept (e.g. colors, shapes), and books on a current theme. As seen in Table 2, relatively few if any classrooms contained any books that were not categorized as narrative picture books; for these, the majority of classrooms ($n = 8$, 61%) had at least four narrative books available to children.

The second dimension examined was writing-related materials (see Table 3), which included examining whether there was a writing center in the classroom and the types of materials in the center, if available, as well as whether children had writing portfolios. Very few classrooms ($n = 2$, 15%) had a dedicated writing center, although nearly all classrooms (92%) had some writing materials available to children outside of a writing center and children maintained writing portfolios in 6 of the 13 classrooms (46%).

The third dimension examined literacy displays available within the classroom context, including print displays around the room, displays of child-generated writing, and availability of the alphabet. Anecdotally, very few of the classrooms would be characterized as “literacy-rich environments,” a term used to describe classrooms which have myriad displays of print available for children (Katims & Pierce, 1995). Nearly two-thirds of the classrooms (62%) had no alphabet on display, and 9 of 13 classrooms (69%) had no child-generated writing on display (see Table 3). However, in about one-half of classrooms (54%) children’s names were displayed in writing in some manner, and all classrooms had written words or labels on display somewhere.

The fourth dimension examined literacy-related materials available to children, focused on availability of word/letter puzzles and literacy-related props children might use in their play. All but two classrooms had three or fewer word or letter puzzles with which children could play, and all but one classroom had no literacy-related props children could utilize.

The final dimension (not reported in the table) concerned technology related to literacy, specifically whether there was an audio center in the classroom using for listening to books or other literacy-related activities. No center contained an audio center or any obvious technologies related to literacy and language development (e.g. computer games, electronic books).

3.2. Literacy and language practices used by educators

The second research aim was to understand the literacy and language practices used in Mexican early childhood classrooms, as guided by childhood educators’ self-described literacy and language goals, skill priorities, instructional approaches, and materials. This aim was addressed using qualitative data obtained from the three focus groups, and an analysis process that resulted in 239 codes emerging from the data. Nine codes are not reported on further because they resulted in themes with less than four codes. The remaining 230 codes represented two major themes corresponding to teacher-perceived goals in language development (66 codes), and teacher approaches to building literacy (82 codes); within each theme the codes coalesced into several sub-themes, which we further describe. Note that an additional 82 codes did not reflect either of these two major themes but are briefly described for the sake of thoroughness.

3.2.1. Theme 1: Teacher-perceived goals in language development

Analysis of the transcripts of the three focus groups resulted in 66 codes related to teachers’ goals related to children’s language development, which represented four sub-themes corresponding largely to skill domains. We provide an overview of each sub-theme and specific points made by the teachers regarding each.

Table 3. Writing materials, literacy displays, and literacy materials in classrooms (n = 13)

	n	Percentage (%)
<i>Writing materials</i>		
<i>Dedicated writing center in classroom</i>		
Yes	2	15
No	11	85
<i>Types of paper/writing media available in center</i>		
0 types	13	100
1-3 types	0	0
4-6 types	0	0
7+ types		
<i>Types of writing tools in the writing center</i>		
0 types	10	77
1-3 types	3	23
4-6 types	0	0
7+ types	0	0
<i>Writing materials available outside of writing center</i>		
Yes	11	92
No	1	8
<i>Child writing portfolios</i>		
Yes	6	46
No	7	54
<i>Literacy displays</i>		
<i>Different places the entire alphabet depicted in room</i>		
0 places	8	62
1-3 places	5	38
<i>Print displays around classroom</i>		
0 displays	3	23
1-3 displays	4	31
4-6 displays	2	15
7+ displays	4	31
<i>Distinct displays of child-generated writing</i>		
0 displays	9	69
1-3 displays	3	23
4-6 displays	0	0
7+ displays	1	8
<i>Distinct displays of child-dictated writing</i>		
0 displays (other response options never selected)	13	100
<i>Children's names displayed around the room</i>		
0 displays	6	46
1-3 displays	7	54
<i>Written words, labels, and/or a word wall visible</i>		
	13	100
	0	0
<i>Literacy materials in classroom</i>		
<i>Different literacy-related props in play area</i>		
0	12	92

(Continued)

Table 3. (Continued)

	n	Percentage (%)
1-2 props	1	8
<i>Word/letter puzzles in classroom</i>		
0 puzzles	6	46
1-3 puzzles	5	39
4-6 puzzles	1	8
7+ puzzles	1	8

3.2.1.1. *Vocabulary (35 codes)*. The development and reinforcement of vocabulary was a skill that teachers repeatedly expressed to be of importance within their classrooms. Among the many codes recorded for vocabulary across the three transcripts, two sub-categories were apparent in teachers' responses: *spoken vocabulary* and *written vocabulary*. For *spoken vocabulary*, teachers repeatedly listed the augmenting and expanding of vocabulary as one of their main goals for language instruction in the classroom, as well as an important skill to cultivate in children (e.g. "I like to practice language a lot so that when they pass to first [*first year of kindergarten*], it is my goal to send them to first year talking." [*A mí me gusta practicar mucho el lenguaje para que ellos pasen a primero y esa es mi meta- prepararlos para que pasan a primero hablando.*]) The following excerpt illustrates one commonly discussed strategy to augment spoken vocabulary across preschools. Note that we provide this and the other transcripts in English, although the original transcripts were in Spanish and translated by the second author. The transcripts in Spanish are available upon request.

[...] so right now, my first priority is to help them become more understandable through games and songs. For example, now I am working including...when you just came to visit, you could see I was using music because ... I downloaded a lot of songs because through games and songs, poetry, and listening to stories – all that – the child begins to broaden their vocabulary and starts listening to the pronunciation of the words and starts imitating his classmates.

As highlighted in the above excerpt, some of the strategies teachers employed to foster spoken vocabulary included the use of music and songs, as well as promoting children's interactions with other classmates. Other popular approaches to support children's vocabulary development included the use of materials with both pictures and words, the use of repetition, as well as the use of poetry and stories. In addition, teaching *when* and *how* to use certain vocabulary words, helping children to realize that everything has a name, teaching children to identify objects by their name, prompting children to describe a word with their imagination, identifying the names of objects seen in pictures, and using repetitions when learning vocabulary were also commonly used methods reported by the teachers. The idea of reinforcing existing vocabulary and to build new vocabulary from extant vocabulary was also a strategy that teachers claimed to use in classrooms.

For *written vocabulary*, most of the discussion from teachers focused on specific materials that teachers were using to advance this skill. In the next excerpt, teachers discuss the use of blackboards, pictures, and tracings to support children's written vocabulary:

In terms of reading, well firstly, we use stories with images, and I like to write on the blackboard. If I am going to draw or place a picture, I like to write the name so that they begin to identify the written word with the picture. So, we trace a lot. For example, if we are going to work on animals this week, we will see the elephant when we see the letter e, we review the letter e, we glue the letter e. So, we will begin identifying the letters, now from the written form but always using a picture.

Other examples of materials teachers identified to support written vocabulary development included written words (e.g. word lottery, memory, use of pictures with text) as well as materials dedicated to writing (e.g. notebook, blackboard).

3.2.1.2. *Morpho-phonemics (14 codes)*. A sub-theme comprising 14 coded segments of the focus-group transcripts represented teachers' emphasis on the finite rules of language (e.g. combining syllables into words) and how these are used in combinatorial ways; we referred to this sub-theme as morpho-phonemics. Teachers often reported starting with letter sounds as the foundation upon which they would help children learn how to construct syllables and words (e.g. "from the sound you can build the syllable." [Y después de eso, del sonido viene la composición de la sílaba.]). Further, teachers indicated that skills, such as knowing the sounds, structures of words, and sentences, were important skills to be developed. As exemplified with the following excerpt, the use of "carretillas," or "wheelbarrows" in English to refer to simple combinations of consonants and vowels (e.g. "ma", "me", "pa", "pe", "mi mamá me mima"), was one of the methods most often reported by teachers to teach children pre-reading skills:

That is why I have to use the sounds of the alphabet, and just like the daily "Our Father," and based on this, it is easier for the child to develop reading and syllable composition, and you start there and the child will start saying: "Ah, so this is mama. Here it says" And we start with what we call "wheelbarrows".

As illustrated in the previous excerpt, a repeated sub-theme was moving from the small (i.e. sound of the alphabet) to the large (e.g. syllable composition) in teaching children core concepts and skills, facilitated by teaching children to identify letters (vowels and consonants) as well as diphthongs, syllables and bi-syllables. Of note, however, is that not all teachers agreed on the use of the *traditional* bottom-up method, or starting from the letter as the smallest unit (e.g. "They are starting to identify letters, starting with vowels. Then, follow diphthongs. Also, those who are more ahead, the consonants in order to build syllables" [Ya empiezan a identificar letras, empezando como vocales. Vienen lo que son ya diptongos. Inclusive lo que son más adelante las consonantes para poder hacer lo que es las sílabas.]). There were teachers that preferred what they called the *global* method (top-down) of teaching, or starting from the word as a larger unit and then analyzing within the word for smaller units (e.g. "We use words more than syllables, and from there, we break them down and analyze them" [Más bien usamos como las palabras, y de ahí, las vamos desglosando o analizando]).

3.2.1.3. *Articulation (12 codes)*. Alongside the teaching of higher level language and vocabulary skills, teachers expressed some concerns about the typical development of articulation in their children as well as having problems understanding what their children were saying. Teachers believed that one of the priorities of early kindergarten was to work on children's pronunciation, and to encourage children to use and pronounce complete words (e.g. "help them and support them in the articulation domain because good articulation reinforces language and communication," [...ayudarlos o apoyarlos muy bien en esa parte de articulación realmente refuerza mucho el lenguaje que articulen mejor para que puedan comunicarse de una mejor manera...]).

3.2.1.4. *Higher level language (5 codes)*. Teachers articulated the importance of helping children to develop complex linguistic skills, which we referred to as higher level language skills, such as listening and understanding discourse-level texts (e.g. conversations) and differentiating across diverse genres of text (i.e. tale, fable, rhyme, joke, riddles). To promote these skills, teachers relied on using diverse types of text when reading to children with the explicit purpose of helping children to differentiate among texts (e.g. "So that they begin to develop their necessary abilities to listen to a story, differentiate between a fable and a rhyme, or a normal story from a joke. In other words, to begin to develop these abilities by working these with them. Telling them and having them slowly learn the difference ..." , [Entonces que ellos vayan desarrollando todas las habilidades necesarias, como escuchar un cuento, diferenciar una fábula de una rima, de un cuento normal, de un chiste. O sea que

ellos adquieran desarrollando esas habilidades pero trabajándolas con ellos. Contándoles y que ellos aprendan a diferenciar...]).

3.2.2. Theme 2: Teacher approaches to building literacy

Analysis of the transcripts of the focus groups resulted in 82 codes related to teachers' approaches to building children's literacy, which represented four sub-themes.

3.2.2.1. Letters and letter-sound correspondence (28 codes)

For teachers across all schools, an overarching emphasis with respect to preschool literacy instruction was helping children to understand the role, use, and function of letters. Specifically, teachers' goals for their students included helping them to locate letters as part of a broader context as well as to understand that letters were the smallest units of words. Some teachers relied on teaching letters by means of games (e.g. "Regarding literacy, we use the alphabet bingo a lot – alphabet memory...We use name bingo – their names on large signs and we mix them up. Memory card games with their names as well" [*En el caso de lectura, utilizamos mucho lo que es la lotería del abecedario, memorama de abecedario... La lotería del nombre, nombres escritos en letreros grandes de su nombre y revolverlos. Tarjetas de memorama del nombre también.*]). Explicitly making the distinction between vowels and consonants was a skill to be emphasized for older children.

In addition to cultivating children's knowledge of the alphabet, teachers also emphasized teaching children the relations between letters and sounds, with two specific approaches often cited. There were those teachers whose philosophy was to teach only the letter sound to children (e.g. "I am also working on the alphabet sounds. I also noticed as I did dictation that if I dictate the letters by their names they get confused. For example, if I name the letter *m* for them in 'mama,' children will write an *e*. For this reason, I began to work on sounds" [*Bueno yo también estoy trabajando en cuanto a sonidos del abecedario. Me di cuenta también en el dictado que si yo a los niños les dicto por el nombre de las letras, ellos se confunden. Por ejemplo, si les llevo a decir la letra *m* de mamá, los niños tratan de escribir una *e*. Por eso es que yo me dirigí a trabajar sonidos*]). However, some also indicated that children needed to know both the letter sound and letter name (e.g. "I tell the children that the letters have a name and a sound, and that has worked very well for me because the children begin to differentiate that the *m* is called the "eh-meh" but it sounds /m/" [*Yo les digo a los niños que las letras tienen un nombre y un sonido y eso a mí me ha funcionado súper bien porque los niños aprenden a distinguir que la *M* se llama "e-me", pero suena /m/*]). Teachers reported that they used games in which children used letters to build words, even if they had no meaning. Connecting the sound of a letter to the shape of the letter and making connections with other words that also share that common letter was an activity used by teachers to help children acquire letter-related skills.

3.2.2.2. Reading (25 codes)

In general, teachers often viewed reading as an eventual outcome of their work with children, viewing development of reading as a process in which children must acquire the necessary skills to be able to read. Of note is that teachers were cognizant that reading could or could not take place during the preschool years, when children are three to five years of age, and explicitly expressed that it was important not to frustrate children in the process (e.g. "Because we can't also force them or we risk frustrating the child" [*Porque tampoco los podemos forzar porque podemos llegar a frustrar al niño.*]). Further, teachers underscored the importance of teaching children to reason based on the reading that happened either in the classroom or at home (e.g. "Because based on the reading we do we have them reason based on questions regarding what they read or have read at home." [*Porque en base a la lectura que uno realiza también es ponerlos a razonar, a base de preguntas, de lo que se estuvo leyendo o de lo que leyeron en casa.*]).

Within their discussions of reading, there were three sub-categories that emerged. The first one, *Reading material created by children*, referred to those activities that teachers used in the service of teaching reading and reading-related skills (e.g. use of stories/tales made by children, teachers and children making their own books, children making flashcards about the books they read). For

example, one of the teachers mentioned using flashcards to summarize what happened in a book (e.g. “They do index cards about the books we have read. I read a book, and someone draws the picture of the book. And from that story, what is described? what’s the story? and the author?” [*Ellos hacen sus fichas bibliográficas de los cuentos que les leemos. Yo le leo un cuento y alguien hace el dibujo de ese cuento. De esa historia, ¿que describe? ¿que cuento es? ¿y el autor?*]).

The second sub-category referred to the *First exposure to reading*, and referred to the activities that promoted pre-reading skills and brought children closer to reading. For instance, the following excerpt illustrates a “pretend to read” activity that a teacher mentioned she uses in her classroom:

In the same way, in an open-ended manner, I like to suggest that they read, especially in third [*kindergarten*]: “Let’s see now, who wants to read to us the story?” So obviously the child will not be able to read word for word, but using images they can start telling the story, and starts making up what s/he thinks is happening and interprets the images and starts telling the others in the class. These are their first attempts at reading.

The third sub-category, *Reading in classroom/school*, describes the opportunities and strategies used in the classroom to expose children to reading (e.g. “But we read a story to them every day after recess or before, or if you can use it as the beginning of your teaching sequence, you tell them a story.” [*Pero les leemos siempre un cuento después del recreo o antes del recreo o si te sirve como un detonador para tu secuencia que vas a trabajar, les lees un cuento.*]). Other strategies that were mentioned were reading a book and showing them the picture in the book as they read, and incorporating story time into routine school activities.

3.2.2.3. Children’s names (18 codes)

For teachers, the use of children’s names represented a frequently referenced vehicle to teach children different literacy-related skills. For instance, teachers used children’s names to introduce various literacy skills (e.g. differentiating between vowels and consonants, identifying upper and lower case letters). As illustrated in the following excerpt, using a child’s name enabled children to develop a sense of ownership in the letters of their names, which contextualized the learning:

This is so they have the sense of ownership and begin to take ownership and also give meaning to the process: the letter x is in my name and the letter e is in my name and I also have an l in my name and I have a friend whose name is Manuel and he also had an l in his name.

In addition, teachers also indicated using the first letter of a children’s name to start working with letter-sound correspondence as well as to identify other words that start with the first letter of their names (e.g. “For example, we work using mental maps, for example the name Axel. Axel – what is the first letter of your name? A, and what is the sound? Well, /a/. So tell me, what other words begin with the same letter?” [*Por ejemplo, trabajamos como a manera de mapa mental, por ejemplo el nombre de Axel: Axel ¿con qué letra empieza tu nombre? Con la A y ¿cómo suena? Pues ¡ah! Entonces dime ¿qué otras palabras empiezan con esa letra?*]).

Teachers also used children’s names to introduce children to pronouns and the sense of belonging (i.e. “this” is my name, “there” is your backpack).

3.2.2.4. Print awareness (11 codes)

Among teachers from the three schools, the use of print materials that carried meaning was mentioned as being commonly used in the classrooms. For example, teachers used books, newspapers, magazines, and flashcards with the word on the back and image on the front to teach new words. These materials were used to teach children basic print concepts, such as how to handle books and print directionality. Print materials such as magazines were also mentioned as an inexpensive way to introduce children to the use and care of books:

So the magazine is for: How am I going to sit? How do I turn the page? And there were some daycare children who still tore and everything else, but as time went by, children were scanning magazines, and when they are provided books, they don't tear them anymore.

Teachers articulated that the idea of directionality as well as pointing while reading were partly introduced using print materials.

3.2.2.5. *Remaining codes (82 codes)*

There were other themes and sub-themes that were apparent in the remaining codes but that did not pertain to our main research question and thus are not elaborated in detail. However, we briefly describe these codes to present a complete depiction of teachers' input. First, there was a theme regarding "Teachers' Teaching" (38 codes) described by four sub-categories: (1) Freedom of teaching as long as it is based on curriculum, (2) Teachers' access to physical materials, (3) Teachers' resourcefulness/creativity, and (4) Differentiated instruction. This theme largely centered about the role of the teacher in the classroom, such as how much autonomy she might have or the materials to which he has access. Second, another theme that emerged involved the "Parents' Role" (17 codes) and this theme also had three sub-categories: (1) Physical resources, (2) Parents help/support with child's underdeveloped skills, and (3) Parents role as partners in teaching. This theme focused on the role of parents in their children's education as well as provision of resources to the school (e.g. parents' help preparing materials). Third, the remaining themes related to "Motor Skills" (10 codes), and "General Teaching Strategies" (17 codes). The former referred to skills and activities related to children's physical and motor development, whereas the latter captured general references made to teaching methods and materials (e.g. use of different visual materials such as cards, and images on walls).

4. Discussion

The present study was designed to explore literacy and language practices in Mexican preschool programs through an examination of (1) literacy- and language-related structures within 13 early education classrooms, representing both public and private programs, and (2) early childhood educators' reported literacy goals, skill priorities, instructional approaches, and materials as derived from analysis of focus-group discussions. The findings presented here make a welcome contribution to the growing literature on preschool settings as an important milieu for supporting young children's literacy and language development, while also augmenting a research base focused on Spanish-speaking children but largely conducted within the English-speaking North American context. Given that Mexico relatively recently legislated universal preschool for all children starting at age 3, it is vital that we improve our fundamental understanding of the structures and processes available to children in these early education settings, particularly those that support their foundational literacy and language skills. We have organized this discussion to first consider what we did observe, and then to consider what we did not observe, and conclude by considering the implications of our work for future research.

First, via our structured observations in 13 early education classrooms and interviews with teachers, we made three primary observations. First, literacy-related structures and material supports were relatively scarce in many classrooms. For instance, only two of 13 classrooms had writing centers available to children, none had displays of child-generated writing, none had puzzles or other literacy-related toys or props, and relatively few (38%) had the alphabet on display. Research within the North American context has suggested that embedding children in "literacy-rich" classroom environments is an important avenue for facilitating children's early literacy and language growth (BLINDED), with literacy rich generally representing tangible materials. Specifically, some have argued that three literacy-rich practices must be present in all early childhood settings: (1) a well-stocked classroom library, (2) multiple adult-child storybooks readings, and (3) an often-utilized classroom writing center (Katims & Pierce, 1995). No classroom that we observed would have met these criteria.

Teachers' input coalesced with these observations, in that they made no mention of using writing centers, alphabet displays, or puzzles as avenues for teaching literacy- and language-related skills. Rather, teachers tended to emphasize the use of games, songs, music, flashcards, and discourse (e.g. listening, telling) as avenues for teaching, and teachers reported having a large degree of autonomy in selecting materials to use to meet curricular goals. Interesting to note, however, is that despite our observations of scarcity, teachers never referenced needing or wanting additional resources to augment their literacy- and language-instructional practices, and did not appear to have concerns about the extent to which their classrooms provided "literacy rich" environments. Put differently, while the apparently limited material resources available in the early education classrooms we observed may reflect financial constraints and budgetary limitations within the programs themselves, a need for more materials was seldom raised by teachers and did not appear a significant concern. To this end, it appeared that teachers made use of the materials they had, and did not seem to perceive access to literacy-supporting resources as particularly instrumental to their ability to address children's literacy and language skills.

A second observation made was that explicit instruction in the area of literacy and language skill appeared to be a salient focus of the early-education curriculum, with teachers describing a number of specific skills they teach (e.g. alphabet letters, vocabulary words) using explicit instructional approaches. Theoretical discussions within the early literacy scientific literature have for long displayed strong philosophical divisions over the role of explicit skills-based instruction in preschool settings versus implicit play-based routines (see Dickinson, 2002). Explicit instruction is distinct from implicit instruction in its specificity, in that teachers' intent in a lesson is made very clear as well as the learning desired of the student (Connor, Morrison, & Slominski, 2006). For instance, we previously referenced one teacher describing her interactions with a student as she helped him develop alphabet knowledge ("Axel – what is the first letter of your name? A, and what is the sound? Well, /a/. So tell me, what other words begin with the same letter?"). Depictions of instruction across the 13 teachers' classrooms frequently referenced an orientation toward direct instruction (e.g. "...I tell the children that the letters have a name and a sound, and that has worked very well for me), and most of the sub-themes that emerged were characteristic of an explicit skills orientation (e.g. morpho-phonemics, articulation).

Some evidence points to explicit instruction in preschool settings as being particularly beneficial to children's development of such early literacy skills as phonological awareness and alphabet knowledge (Connor et al., 2006). In this regard, the commonly reported use of explicit instruction may provide important benefits to children's development of these skills. Further, a recent experiment conducted with Spanish-speaking parents and their preschoolers in Mexico showed that explicit instruction provided by parents during read-alouds significantly improved their children's literacy skills (BLINDED). The present findings suggest the need to inquire further as to the origins, benefits, and potential detriments of a heavy reliance on explicit instruction in the Mexico preschool context. Because we did not analyze and code the teacher transcripts until after the focus groups had been completed, we were not able to delve deeply into the roots of this explicit instructional orientation. It may be that the teachers were exposed to the principles of explicit instruction during professional-development experiences, as is common in the United States (Jackson et al., 2006), or because it is the dominant approach emphasized in teacher-education programs.

A third observation was that teachers tended to rely largely on a bottom-up approach to teaching language and literacy skills, rather than a top-down approach. A bottom-up approach focuses initially on teaching the individual units that are used in written and oral language, such as sounds and letters and words, whereas a top-down approach focuses initially on teaching the meaning of language at the discourse level, a contrast referred to as "sound-to-meaning" versus "meaning-to-sound" (Helland, Tjus, Hovden, Ofte, & Heimann, 2011). The focus group data and resulting themes, sub-themes, and exemplars often emphasized the teaching of lower level skills, including letters, sounds, and individual word meanings, that lead to higher level skills via synthesis (e.g. "they are starting to identify letters, starting with vowels, then follow diphthongs, the consonants to build

syllables”) but also direct elaboration of using bottom-up approaches. Interestingly, this bottom-up approach, seen also in curricula and learning standards in North America, receives a fair amount of backlash as considered not developmentally appropriate and taking the play out of preschool (Charlesworth et al., 1993). Within the Mexican content in which this study was conducted, it was interesting to find that teachers appeared to rely largely on a bottom-up approach, while also being sensitive to children’s frustration levels and the overall goal of their instruction. Thus, it appears that teachers are aware that a bottom-up approach, which its focus on abstract symbols (letters, sounds, unknown words) can present challenges to young children, and thus attempt to balance their instructional approach with avenues to scaffolding children’s learning.

In considering what we did find in our observations and focus groups, it was also intriguing to consider what we did not encounter. Bryant and Charmaz (2007) have suggested that a significant aspect of qualitative work such as ours is considering not only what was observed but also what was not. We point out three commonly referenced structures and processes often described in research on US classrooms’ that were not observed. (1) dramatic play, (2) shared book reading, and (3) child writing. First, no structures related to dramatic play were observed in the 13 Mexican classrooms, nor did teachers reference use of dramatic play as a means to supporting children’s early language and literacy development. Dramatic play is often used in North American and European classrooms as a way to teach specific language and literacy skills (e.g. Ihmeideh, 2015; Snow, Eslami, & Park, 2013), to some extent to offer alternatives to the use of more didactic approaches. It may be that in the Mexican context, a didactic orientation is perceived as an appropriate approach to early education instruction, thus alternatives such as play are not considered. Nonetheless, it is important to note that games were mentioned on multiple occasions. For instance, codes represented the following: “Use name of children to come up with games,” “Use games to separate children and make children count and identify the letter of their name,” “Starting with the name of children we develop games like lottery using their names and their classmates,” and “Child uses games to build letters, even if they have no meaning.” Nonetheless, while games represent a type of play among children, these are distinct from dramatic play.

Second, there was only limited evidence that shared book reading was a common structure or process used to promote children’s language and literacy skills in the participating preschool centers. Most classrooms had relatively few books, and teachers seldom referenced read-alouds as an approach to early language and literacy instruction. This runs counter to perspectives in North America and Europe, in which read-alouds are often cited as one of the most effective language and literacy instructional practices (Lonigan & Shanahan, 2009; Mol, Bus, & de Jong, 2009). We speculate that the limited use of books as a literacy-promoting resource stems from the prohibitive cost of children’s books within Mexico, thus barring their use as a salient instructional tool. At the same time, adult-child read-alouds may not be a routine practice for many adults and children in Mexico, thus it would seem unlikely that this practice would occur commonplace in early education settings.

Finally, child writing was not observed as a salient structure or process within the Mexican classrooms we studied. Examination of the focus-group sub-themes showed that this was referenced only three times (e.g. “if children cannot write correctly, do not force them. It is a process – they have third grade or elementary school to get it”). Historically, there has been limited attention in the use of child writing opportunities as a means to promote language and literacy skill, but this paradigm has shifted within North America and Europe in the last decade (BLINDED). Ethnographic studies showing that even very young children use writing to express themselves, as well as work showing developmental patterns in children’s writing development, have fostered attention to early writing within the early childhood classroom (Rowe, 2008). It would be useful for future research to explore Mexican teachers’ perceptions regarding young children’s writing, to include whether they might consider utilizing writing opportunities in their classrooms as an approach for enhancing children’s literacy development.

It is important to reference limitations of this work, which may help to identify future directions for research in this area. The first limitation of this study is the use of an observational measure that has been primarily used to evaluate the physical environment of US preschool classrooms. The physical layout of a preschool classroom in Mexico is somewhat different than that of the typical US preschool classroom. Specifically, Mexican classrooms do not usually have a clear dedicated space for writing or circle time, which might be a reflection of the different priorities or teaching philosophies in the Mexican curriculum. It is also possible that the absence of technology and variety of books evidenced in the observations is linked to the lack of financial resources available to the school. A second limitation is that the study was conducted in one community in Mexico, thus generalizations should be drawn only cautiously. Mexico is a large country with many distinct cultural communities, and there is likely great diversity across communities in the ways in which language and literacy is taught. While the present research helped to identify the structures and processes within 13 Mexican classroom as related to language and literacy, additional research should look to other schools and communities.

In closing, we highlight again the overarching goal of this paper, which was to provide one of the first examinations of the processes and practices utilized in Mexican preschool programs specific to children's literacy and language development. Our work showed that all classrooms had books, yet generally of limited number and genre. We also found that many classrooms displayed the alphabet and children's names, but this was not a uniform practice. Finally, we found that teachers generally held an explicit instructional orientation with a strong focus on bottom-up skill development. Given the scaling-up of preschool participation in the Mexican context, our work shows that language and literacy instruction is a core focus in preschool programs, and that teachers are attentive to enhancing these skills in young children. Future research can help to pinpoint individual differences among teachers and classrooms, the relations between classroom structures and processes and children's language and literacy development, and teachers' needs regarding professional development and curricula.

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References

- Adams, M. J. (1994). *Beginning to read: Thinking and learning about print*. Cambridge: MIT press.
- Bryant, A., & Charmaz, K. (2007). *The Sage handbook of grounded theory*. Sage.
- Campbell, F. A., Ramey, C. T., Pungello, E., Sparling, J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the abecedarian project. *Applied Developmental Science*, 6(1), 42–57. https://doi.org/10.1207/S1532480XADS0601_05
- Charlesworth, R., Hart, C. H., Burts, D. C., Thomasson, R. H., Mosley, J., & Fleege, P. O. (1993). Measuring the developmental appropriateness of kindergarten teachers' beliefs and practices. *Early Childhood Research Quarterly*, 8(3), 255–276. [https://doi.org/10.1016/S0885-2006\(05\)80067-5](https://doi.org/10.1016/S0885-2006(05)80067-5)
- Chatterji, M. (2006). Reading achievement gaps, correlates, and moderators of early reading achievement: Evidence from the Early Childhood Longitudinal Study (ECLS) kindergarten to first grade sample. *Journal of Educational Psychology*, 98(3), 489. <https://doi.org/10.1037/0022-0663.98.3.489>
- Connor, C. M., Morrison, F. J., & Slominski, L. (2006). Preschool instruction and children's emergent literacy growth. *Journal of Educational Psychology*, 98(4), 665. <https://doi.org/10.1037/0022-0663.98.4.665>
- Dickinson, D. K. (2002). Shifting images of developmentally appropriate practice as seen through different lenses. *Educational Researcher*, 31(1), 26–32. <https://doi.org/10.3102/0013189X031001026>
- Dynia, J. M., Schachter, R. E., Piasta, S. B., Justice, L. M., O'Connell, A. A., & Yeager-Pelatti, C. (2016). An empirical investigation of the dimensionality of the physical literacy environment in early childhood classrooms. *Journal of*

- Early Childhood Literacy Journal of Early Childhood Literacy.*
- Farran, D. C., Aydogan, C., Kang, S., & Lipsey, M. W. (2006). Preschool classroom environments and the quantity and quality of children's literacy and language behaviors. *Handbook of early literacy research*, 2, 257–268.
- Helland, T., Tjus, T., Hovden, M., Ofte, S., & Heimann, M. (2011). Effects of bottom-up and top-down intervention principles in emergent literacy in children at risk of developmental dyslexia: A longitudinal study. *Journal of Learning Disabilities*, 44(2), 105–122. <https://doi.org/10.1177/0022219410391188>
- Ihmeideh, F. (2015). The impact of dramatic play centre on promoting the development of children's early writing skills. *European Early Childhood Education Research Journal*, 23(2), 250–263. <https://doi.org/10.1080/1350293X.2014.970848>
- Jackson, B., Larzelere, R., St Clair, L., Corr, M., Fichter, C., & Egertson, H. (2006). The impact of HeadsUp Reading on early childhood educators' literacy practices and preschool children's literacy skills. *Early Childhood Research Quarterly*, 21(2), 213–226. <https://doi.org/10.1016/j.ecresq.2006.04.005>
- Jackson, R., McCoy, A., Pistorino, C., Wilkinson, A., Burghardt, J., Clark, M., ... Swank, P. (2007). National Evaluation of Early Reading First. Final Report to Congress. NCEE 2007-4007. *National Center for Education Evaluation and Regional Assistance.*
- Katims, D. S., & Pierce, P. L. (1995). Literacy-rich environments and the transition of young children with special needs. *Topics in Early Childhood Special Education*, 15(2), 219–234. <https://doi.org/10.1177/027112149501500205>
- Lonigan, C. J., & Shanahan, T. (2009). Developing early literacy: Report of the national early literacy panel. Executive summary. A scientific synthesis of early literacy development and implications for intervention. *National Institute for Literacy.*
- McGinty, A. S., & Sofka, A. E. (2009). *Classroom literacy observation profile*. Charlottesville, VA: University of Virginia.
- Mol, S. E., Bus, A. G., & de Jong, M. T. (2009). Interactive book reading in early education: A tool to stimulate print knowledge as well as oral language. *Review of Educational Research*, 79(2), 979–1007. [10.3102/0034654309332561](https://doi.org/10.3102/0034654309332561)
- Organisation for Economic Co-Operation and Development. (2017). *Early childhood education and care home page - Country information: Mexico*. Retrieved January 5, 2017, from <http://www.oecd.org/edu/school/earlychildhoodeducationandcarehomepage-countryinformationmexico.htm>
- NICHD Early Child Care Research Network (2002). Child-care structure → process → outcome: Direct and indirect effects of child-care quality on young children's development. *Psychological Science*, 13(3), 199–206.
- Rowe, D. W. (2008). Social contracts for writing: Negotiating shared understandings about text in the preschool years. *Reading Research Quarterly*, 43(1), 66–95. <https://doi.org/10.1598/RRQ.43.1.5>
- Sandvik, J. M., van Daal, V. H., & Adèr, H. J. (2014). Emergent literacy: Preschool teachers' beliefs and practices. *Journal of Early Childhood Literacy*, 14, 28–52. doi: [10.1177/1468798413478026](https://doi.org/10.1177/1468798413478026)
- Sawyer, B. E., Hammer, C. S., Cycyk, L. M., López, L., Blair, C., Sandilos, L., & Komaroff, E. (2016). Preschool teachers' language and literacy practices with dual language learners. *Bilingual Research Journal*, 39(1), 35–49. <https://doi.org/10.1080/15235882.2016.1138904>
- Scott-Little, C., Kagan, S. L., & Frelow, V. S. (2006). Conceptualization of readiness and the content of early learning standards: The intersection of policy and research? *Early Childhood Research Quarterly*, 21(2), 153–173. <https://doi.org/10.1016/j.ecresq.2006.04.003>
- Snow, M., Eslami, Z. R., & Park, J. H. (2013). English language learners' writing behaviours during literacy-enriched block play. *Journal of Early Childhood Literacy*, 14(68798416637113).
- Storch, S. A., & Whitehurst, G. J. (2002). Oral language and code-related precursors to reading: Evidence from a longitudinal structural model. *Developmental Psychology*, 38(6), 934. <https://doi.org/10.1037/0012-1649.38.6.934>
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- The World Bank (2017). *Labor force participation rate, female*. Retrieved January 5, 2017, from <http://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS>



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