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RESEARCH REPORT

A Framework for the Dual Language Assessment of Young Dual Language Learners in the United States

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Dual language learners (DLLs) and the various educational programs that serve them are increasing in number across the country. This framework lays out a conceptual approach for dual language assessment tasks designed to measure the language and literacy skills of young DLLs entering kindergarten in the United States. Although our examples focus on Spanish–English DLLs, we anticipate that our recommendations could be broadly applied to other language combinations with appropriate adaptations for each language.

Keywords Dual language learners; assessment; framework; translanguaging; conceptual scoring

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Shifts in the current political and fiscal climate have shaped the quality of the educational opportunities that exist for young learners and the early childhood workforce (Ackerman & Tazi, 2015). The Race to the Top–Early Learning Challenge (RTT–ELC), a discretionary grant program authorized by the U.S. Congress in 2011 and administered by the U.S. Department of Education and the U.S. Department of Health and Human Services, calls for reform in five key areas: state early learning systems, early childhood programs, the early childhood education workforce, young children's early learning and development outcomes, and the appropriate measurement of outcomes and children's progress. Funds are awarded to states to reform early childhood in the above areas, with priority going to children with high needs. The latter include children from low-income families; children with disabilities or developmental delays; children who are English learners (ELs); children who reside on Native American lands; children who are migrant, homeless, or in foster care; and other groups of children identified as high needs by individual states (U.S. Department of Education and U.S. Department of Health and Human Services, 2014). A primary aim of the discretionary grant program is to better address young children's educational needs (through improved instruction and assessments) so that their school readiness is improved when they enter kindergarten. The purpose of this paper is to delineate a conceptual framework for the initial language and literacy assessment of one of the high-needs groups: ELs. Our focus is on children who are entering kindergarten[1] (4–5 year olds).

ELs,[2] or dual language learners (DLLs), represent one of the fastest growing populations in the United States (Basterra, Trumbull, & Solano-Flores, 2010). For example, more than one in five children come from homes where a language other than English is spoken (Figueras-Daniel & Barnett, 2013; U.S. Census Bureau, 2012). From 2004 and over a span of approximately 10 years, the number of ELs increased from 20 million to 23 million children (Child Trends DataBank, 2014), an increase in population from 28% to 32%.

In this paper, we use DLL as an inclusive term to encompass language learners who are learning more than one language (e.g., both Spanish and English, with either language as their dominant language) rather than using the term EL, which suggests proficiency in one language and acquisition in another (Williams, 2015). When discussing preschoolers, the term DLL, rather than EL, is preferred because young children are still in the midst of acquiring their first language.[3] According to the federal office of Head Start, the state of California, and research institutions such as the Center for Early Care and Education Research—Dual Language Learners (CECER-DLL), DLLs are young children from birth to 5 years old who are learning more than one language at the same time "as well as those learning a second language while continuing to develop their first (or home) language" (Head Start, 2008, p. 2).

We have organized the paper so that we present background information about young DLLs in the United States, giving special attention to Spanish-speaking DLLs. Next, we describe how young DLLs develop language and literacy skills. We

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then present an overview of dual language education programs and policies and provide a critical review of dual language assessments used for DLLs in this age range. We conclude by describing a dual language assessment framework for young DLLs entering kindergarten in dual language education programs.

Background of Young Dual Language Learners

Worldwide, many children grow up in multilingual families or societies, and very young children can and will learn two or more languages at the same time (Genesee, Paradis, & Crago, 2004). Some children begin learning two or more languages simultaneously at birth. Other children may learn two languages sequentially, adding a second language to their home language upon entry into early care and education programs (WIDA, 2014). As a result, the linguistic, ethnic, and racial profiles of American schools are changing rapidly. Around 1 in 10 American students are formally classified as ELs, with over 75% of them born in the United States (Williams, 2015). More than four million DLLs are enrolled in early childhood programs nationally, and 30% of the children in Head Start and Early Head Start are DLLs (Goldenberg, Nemeth, Hicks, & Zepeda, 2013). The number of DLLs enrolled in early care and education programs and public schools in the United States has continued to rise, motivating the national imperative to provide quality educational programs for DLL students. Some states experiencing particularly high rates of overall growth (prekindergarten through Grade 12) during the years 1997 – 1998 through 2007 – 2008 have also been awarded federal funding via RTT – ELC grants to assist in their endeavors to meet their students' needs (e.g., North Carolina experienced a growth rate of 269.8%; Delaware, 249.1%; Georgia, 246.7%; Kentucky, 233.1%; and Ohio, 200.6% [see Batalova & McHugh, 2010]). By 2050, the number of Latino children under 5 years of age is expected to increase by 146% (Espinosa, 2006).

Although 80% of ELs are Spanish speakers (Williams, 2015), there is great variability within the EL population (Stevens, Butler, & Castellón-Wellington, 2000) in terms of countries of origin, socioeconomic status, culture, age of exposure to two languages, fluency in both languages, availability of family and community resources, and the amount of English that parents speak (from very little English to fluent English). There also is considerable variability within the different language groups of DLLs (Williams, 2015), including Latinos. For example, speakers within the Latino community in the United States share some common characteristics, but vary according to their ancestral country or region. Those of Mexican descent represent 66%, followed by Central and South Americans at 15%, Puerto Ricans at 9%, Cubans at 4%, and other Latinos at 6% (Espinosa, 2006). Espinosa (2006) reported that Puerto Ricans experience the lowest socioeconomic status among Latinos in the United States and that Mexican and Central American Latinos are less educated than those from the Caribbean and South America.

Across the nation, Spanish is the most frequently spoken language other than English, which is why our assessment framework will focus on young DLLs learning Spanish and English (Ruiz Soto, Hooker, & Batalova, 2015). Additionally, our reasoning for focusing assessment on language and literacy knowledge, skills, and abilities is that kindergarten may be the first exposure to formal schooling that many DLLs receive. Not all children enter kindergarten with the same level of language and literacy development, and thus not all will make progress at an equal rate (Rimm-Kaufman, Pianta, & Cox, 2000). Han (2012) reported that the language abilities that DLLs develop in early childhood programs predict their academic achievement through middle school. Thus, it is critical to determine which language and literacy areas need special attention earlier rather than later. If kindergarten teachers understand what DLLs know and can do, they can then differentiate their instruction accordingly.

Young Dual Language Learner Language and Literacy Development

Language Development

The increasing number of DLLs in the United States requires careful consideration of the language and literacy development of young DLLs (Goldenberg, 2008). Hammer et al. (2014) pointed out that, unfortunately, "relatively little research has been conducted on the language and literacy development of dual language learners (DLLs), particularly during the early childhood years" (p. 715). Most researchers who have focused on the language development of young DLLs have compared their language development to that of monolingual children in terms of vocabulary, oral language, phonological abilities, grammatical development, and semantic abilities, among others (Hammer et al., 2014). The goal of these studies was to examine any differences in developmental patterns across languages. Although most of these studies showed that young DLLs lagged behind monolingual norms, the DLLs tended to close the gap in early elementary grades.

The typical language development of DLLs differs from that of monolingual children (Bland-Stewart & Fitzgerald, 2001) as DLLs must learn rules and values that are associated with two languages and communities, and they must learn when to use them appropriately (Genesee & Nicoladis, 1995). There is considerable variability in the timing, rate, quality, and sequence of young DLLs' language development (Barrueco, Lopez, Ong, & Lozano, 2012). For example, some children begin learning two languages simultaneously, whereas others learn them sequentially, adding a second language to their home language (Genesee & Nicoladis, 1995). There is also great variability in the stage of development (i.e., proficiency level) of the home language when children start learning the second language (Hammer, Lawrence, & Miccio, 2008). Moreover, DLLs arrive at preschool with varying levels of language and literacy skills, largely due to differing language environments at home (Ballantyne, Sanderman, & McLaughlin, 2008). Some children may come from homes where Spanish or English is spoken exclusively, whereas others may speak both languages to some extent at home. As a result, young DLLs will go through different development patterns and will exhibit different degrees of bilingualism, resulting in a wide spectrum of language proficiency, both in Spanish and in English (Tabors & Snow, 2001).

Many factors affect the language and literacy development of young DLLs, including language experiences and early exposure to literacy (Snow, Burns, & Griffin, 1998). The rate of language development for young DLLs is influenced by a range of factors, both internal (e.g., intrinsic motivation and personality) and external (e.g., age of first exposure to the languages, the quantity and quality of the exposure to the languages at home or in school settings; Birdsong, 2006). Other factors affecting the language development of young DLLs include the parents' backgrounds (e.g., demographic characteristics, languages, educational experiences, and beliefs), the type and range of languages used at home, and the literacy experiences within the home (E. E. García & Jensen, 2010). Language development in young DLLs is also related to the amount and quality of exposure to both languages (Silva-Corvalán & Montanari, 2008).

Bilingual competence is governed by the *complementary principle* (Grosjean, 2008), which holds that bilinguals are rarely fluent in all areas of their languages, as they acquire and use their languages for different purposes, in different domains, and with different people (Kemp, 2009). As a result, DLLs could be more dominant in one language than the other, and they may demonstrate, for example, greater proficiency in receptive language (e.g., understanding or comprehending what they hear or read) than productive language (e.g., using the language in speaking and writing), as observed by Tabors & Snow (2001). Thus, full fluency in all languages should not be a criterion for individuals to be considered bilingual; also important is acknowledging that bilingual competence is not an absolute or invariable state, as the languages of bilinguals are in constant flux (Herdina & Jessner, 2002). A bilingual is, therefore, an individual who has knowledge of an extended and integrated linguistic repertoire and who is able to use appropriate linguistic resource(s) contextually (Franceschini, 2011).

Several researchers support the idea that young DLLs have two separate language systems, that is, the home language and the second language (Bosch & Sebastián-Gallés, 2001; Castro & Gavruseva, 2003; Fabiano & Goldstein, 2005; Genesee & Nicoladis, 1995), although there is some interaction, influence, and transfer between the languages (Fabiano-Smith & Barlow, 2010). Many DLLs often use elements from both languages (e.g., sounds, words, and grammatical structures) in communication (Genesee & Nicoladis, 1995; Kyratzis, Tang, & Koymen, 2009). Researchers refer to this communicative practice as *code mixing* (i.e., using a word or phrase from one language in a sentence in the other language) or *code switching* (i.e., using more than one language at the sentence level; Genesee & Nicoladis, 1995). Young DLLs generally mix languages mainly to facilitate communication and to reflect their social identities (Kyratzis et al., 2009). Mixing the two languages does not mean that DLLs are confused (Espinosa, 2003) but rather that they are aware of the differences between the two languages (Genesee & Nicoladis, 1995; Reyes & Azuara, 2008).

Some researchers argue that vocabulary knowledge is a key aspect in the development of other language skills (Biemiller, 2006; Marchman, Fernald, & Hurtado, 2010). Vocabulary knowledge includes knowledge of word meanings, word association, and morphological knowledge (Carlo et al., 2004). When compared to monolingual English speakers, young DLLs have been reported to know fewer English words (August, Carlo, Dressler, & Snow, 2005), although they may know equivalent words in their home language. It is important to note that the vocabulary gap in English tends to decrease as DLLs get to the elementary grades (Bialystok, Luk, & Kwan, 2005). With time and meaningful opportunities to learn and use English in school, DLLs increase their vocabulary knowledge in English.

Literacy Development

There is evidence that strong oral language skills support the early literacy development of young DLLs (August et al., 2005; August & Hakuta, 1997; Snow et al., 1998; Tabors, Páez, & López, 2003). For example, DLL level of vocabulary knowledge is an important predictor of reading ability, reading comprehension, and achievement on reading assessments (August et al., 2005; August & Shanahan, 2006; Proctor, Carlo, August, & Snow, 2005). Although not specific to DLLs, research on native English speakers has also shown that alphabet knowledge, phonological awareness, and print awareness are early literacy skills that contribute significantly to later reading achievement in English (National Early Literacy Panel, 2008); it is possible that these emergent literacy skills may contribute to future English reading abilities of DLLs as well.

Several researchers have reported a strong relationship between the development of language and literacy skills in the home language and the development of these skills in a second language (Castilla, Restrepo, & Perez-Leroux, 2009; Kan & Kohnert, 2005; Reyes, 2006; Rinaldi & Páez, 2008). It has also been found that the use of Spanish at home helps in the development of language and literacy skills in the home language and does not interfere with the development of language and literacy skills in English (Hammer, Davison, Lawrence, & Miccio, 2009). However, many DLLs do not have the opportunity to develop literacy skills in their home language or do not have opportunities to maintain those skills in educational settings (Espinosa, 2008). As a result, they sometimes develop stronger literacy skills in English than in their home language when enrolled in early education programs, which often emphasize English (MacSwan & Pray, 2005; Páez, Tabors, & López, 2007; Rinaldi & Páez, 2008).

There also is considerable evidence to suggest that young DLLs who already have developed strong language and literacy knowledge, skills, and abilities in the home language can use these skills in English (G. E. García, 2003; Tabors & Snow, 2001), although the transfer is not automatic (G. E. García, 2003). Researchers have documented cross-language transfer in young DLLs' phonological awareness, syntactic awareness, knowledge of linguistic genres, meaning-making strategies (Durgunoglu, 2002), phonological skills (López & Greenfield, 2004), and grammatical knowledge (Paradis & Navarro, 2003). Thus, DLL students' proficiencies in their home language can facilitate the development of their language and literacy skills in English (Cárdenas-Hagan, Carlson, & Pollard-Durodola, 2007; Durgunoglu, 2002).

Researchers have suggested that monolingual and DLL children follow a similar progression of emergent writing development (Buckwalter & Gloria Lo, 2002; Yaden & Tardibuono, 2004). For example, both groups of children begin developing emergent writing skills as they begin to understand the form and function of written language, although the development of these skills takes time and abundant support from teachers and parents (Reyes, 2006; Yaden & Tardibuono, 2004). However, a few researchers have reported that the form of the written language also influences how young DLLs develop print concept abilities (Bialystok, Shenfield, & Codd, 2000). For example, students who learn to read in English will read from left to right; however, students who learn how to read Arabic may learn to read from right to left.

Other researchers propose that DLLs have two separate writing systems. These studies have indicated that literacy awareness appears to be unique to each writing system and that learning two separate writing systems simultaneously does not appear to negatively impact the development of emergent literacy skills (Buckwalter & Gloria Lo, 2002). Some studies have suggested that young DLLs develop their own concepts about the two languages and compare them often and that young DLLs use preexisting knowledge about their language in writing (Reyes, 2006).

Dual Language Education

Programs

Because the goal of this paper is to propose a framework for the assessment of young DLLs who are entering kindergarten, this section summarizes information regarding dual language programs at this grade level. *Dual language programs* is an umbrella term for bilingual programs where the goal is for students to become bicultural, bilingual, and biliterate; that is, students develop full proficiency in their home language and high levels of proficiency in a second language (Gómez, Freeman, & Freeman, 2005; Howard, Olague, & Rogers, 2003; Lindholm-Leary, 2001). Dual language education programs are often given different labels (e.g., dual immersion programs, two-way immersion programs, developmental bilingual programs, enriched education programs, heritage language immersion programs, and foreign language immersion programs; Lindholm-Leary, 2001). Although different labels are used, all programs share similar characteristics: The goal is to help students become proficient in the two languages, instruction is provided in two languages, and students learn language through academic content instruction in both languages (Lindholm-Leary, 2001; Torres-Guzmán, 2007).

Despite similar characteristics among dual language programs, there is also some variation among them (Cloud, Genesee, & Hamayan, 2000; Gómez et al., 2005). For example, dual language programs vary in terms of the languages used for instruction. Among the dual language programs implemented in the United States, students learn English and another language, such as Spanish, Cantonese, French, Korean, or Tagalog, and although there is a range of home languages represented in dual language programs in the United States, most of them are English – Spanish (Freeman, Freeman, & Mercuri, 2005).

There is also variation in terms of who the learners are. In one-way dual language programs, all students share the same home language background (e.g., Spanish, Korean) and are instructed in both the home language and English (Lindholm-Leary, 2000). Conversely, in two-way dual language programs, about half the students are native English speakers, and the other half are native speakers of another common language (Collier & Thomas, 2004; Lindholm-Leary, 2001; Thomas & Collier, 1997). There is also variation in how time is allocated for instruction in each language. The two most common models are the *90 – 10 model* and the *50 – 50 model* (Gómez et al., 2005; Lindholm-Leary, 2001). In the 90 – 10 model, starting in kindergarten or Grade 1, the student's home language is used 90% of the time and English 10% of the time, with the percentage of instruction in English slowly increasing and the percentage of instruction in the home language decreasing, until the upper elementary grades (usually starting in Grade 4) when students are taught 50% of the time in each language (Lindholm-Leary, 2001). In the 50 – 50 model, throughout kindergarten and elementary school half of the instruction is in English, and half in the home language (Gómez et al., 2005).

Participation of Young Dual Language Learners in Early Education Programs

One of the biggest challenges in providing quality education to young DLLs in the United States is designing national, state, and local policies to improve access to and participation of DLLs in early education programs (Espinosa, 2013). According to Calderon (2004), access to high-quality, universally accessible preschool programs will help to ensure that DLLs enter kindergarten ready to learn. However, historically there has been an underrepresentation of DLLs in preschool programs (Gelatt, Adams, & Huerta, 2014; Hernandez, Denton, & Macartney, 2007; Matthews & Ewen, 2006). Although the participation of young DLLs in early education programs has increased from 39% in 2007 to 52% in 2012, DLLs (including DLLs who have English as their home language and are learning a second language in their educational programs) still trail behind other groups (Child Trends DataBank, 2014).

One of the major problems is that preschool is not universally free throughout the United States. According to the U.S. Department of Education (2015), in 2013, "59% of 4-year olds — or six out of every 10 children — [were] not enrolled in publicly funded preschool programs through state preschool, Head Start, and special education preschool services" (p. 4). In 2013, the preschool participation rate for Latinos [was] "40 percent compared to 50 percent for African American children and 53 percent for white children" (p. 5). Although a survey showed that 96% of Latino parents believed that early education programs are important for young DLLs (Pérez & Zarate, 2006), information about participation in early education programs was not readily available to them. In fact, more than 25% of the survey participants indicated that they did not know where to get information about the services of early education programs.

Laosa and Ainsworth (2007) reported that many DLLs were not enrolled in early childhood programs because of low socioeconomic status, language barriers, and varying levels of parental education. Sixty-four percent of young DLLs in Head Start come from families with low income levels and live in poverty (U.S. Department of Health and Mental Services, n.d.). Barnett and Yarosz (2007) observed that regardless of ethnic background, children in families with low income levels and low levels of maternal education were less likely to attend early education programs. Children's access to early education programs also varies according to where they live (U.S. Department of Education, 2015). For example, many young DLLs live in areas with limited physical space and infrastructure, meaning that there is little to no physical space for preschool programs (Beltrán, 2011). Another problem is that most early education programs do not offer full-day programs; thus, many Latino families are forced to resort to informal care options (e.g., family members or friends) to take care of their children when the programs are not in operation (Kirmani & Leung, 2008). Lastly, family concerns about documentation requirements are another reason for the lack of DLL participation in early education programs (Figueras-Daniel & Barnett, 2013).

Accessible early education programs provide an opportunity to ensure that young DLLs are ready to learn when they arrive in kindergarten. Given that not all young DLLs will participate in an early education program, and not all those who do participate will receive adequate support to develop their language and literacy skills in both the home language

and English, it is critical to assess what these students know and can do so that their kindergarten instruction and health and emotional supports can be targeted to meet their various needs.

Dual Language Assessments

Theoretical Perspectives

Historically, most educational and testing contexts have been dominated by a monolingual or monoglossic paradigm in which multilingualism and multilingual practices often have been ignored (O. García & Torres-Guevara, 2010). The traditional way to measure bilingualism is to assess and score the two language systems separately and then compare the results (Hamers & Blanc, 2000; Hopewell & Escamilla, 2014). Assessments of bilingual competence that reflect a monoglossic perspective "try to account for ultimate native-like proficiency in all the languages" and "assume that the multilingual is the sum of the native-like monolingual competence in each language" (Stavans & Hoffmann, 2015, p. 157). Because multilinguals rarely achieve the same level of proficiency in all the languages in their repertoire, they usually are viewed as language deficient in one or more languages (Baker, 2001; Grosjean, 2008). Herdina and Jessner (2002) argued, "As long as bilinguals are measured according to monolingual criteria, they appear to be greatly disadvantaged both in linguistic and cognitive terms" (p. 7).

When multilingual competence is assessed using monolingual constructs, test takers are expected to respond exclusively in the target language, even if they have multiple languages in their repertoire. Test takers' performances are scored using monolingual scoring rubrics, meaning that if they respond using any other language than the target language (either partially or completely), their responses are penalized. The measures used to assess bilinguals are usually the same as those used to assess monolinguals (Grosjean, 1985; Solano-Flores & Trumbull, 2003; Solano-Flores, Trumbull, & Nelson-Barber, 2002). Monolingual assessments tend to ignore the different needs that bilinguals have for their two languages and do not take into account that bilinguals use these languages for different purposes, with different speakers, and in different contexts (Grosjean, 1989).

Conversely, bilingual assessments that operate from a heteroglossic view (i.e., the combination of multiple languages as one) support the stance that the language repertoire of a multilingual operates as a unified system. Shohamy (2011) placed multilingual assessments on a continuum. On one end, each language is viewed as a closed and homogenous construct. Although multiple languages may be used in the same assessment in this approach, only responses in the target language are scored. On the other end of the multilingual assessment continuum, languages are viewed as part of an integrated system in which test takers are allowed to mix languages in a dynamic and fluid way and responses are scored regardless of the language(s) employed, even if mixing occurs within and across utterances (Canagarajah, 2006; O. García, 2009). This heteroglossic perspective on the assessment of multilingual competence promotes the use of multilingual practices such as language choice, translanguaging (an approach to the use of language that considers the language practices of bilinguals not as two separate autonomous language systems, but as a linguistic repertoire with features constructed to operate concurrently and coherently), code switching, and code mixing. However, most current multilingual competence assessments can be placed on the first end of the multilingual assessment continuum described above.

Current Dual Language Assessment Tools

Early childhood educators need to accurately assess young DLLs' development and achievement in order to provide individualized instruction to improve the quality of education and academic school readiness (Espinosa, 2013). The accurate and valid assessment of DLLs' development is also critical to enhancing the quality of instruction and improving their early care and education (Espinosa, 2013). To understand the characteristics of dual language assessments available for DLLs entering kindergarten, we reviewed 44 language assessments for young DLLs (see Appendix A for the list of assessments). In this review, we included only language assessments for young DLLs in the United States that were offered to Spanish/English DLLs. We defined language broadly, so any domain or construct related to language was included. We limited our search to commercially available language assessments and excluded language assessments that were designed for state-specific purposes (e.g., a Spanish assessment of state-specific standards). We included 34 of the 43 assessments reported by the Center for Applied Linguistics (2014) as appropriate for use in dual language programs. We excluded nine of the assessments from our review because they did not include our target population (students in the transition from

preschool to kindergarten, i.e., including a preschool form, kindergarten form, or both). We also reviewed four additional language assessments that we found through an Internet search.

Most of the assessments we reviewed are a suite of assessments for students in preschool or kindergarten through Grade 12 or beyond. Although the developers provide information about their assessment products, including test administration, mode of delivery, and the skills that are measured, it is not clear if the information applies to all grade levels. We found that there is variability in test administration (individual clinical approach or group administration), mode of delivery (paper based or computer based), and format (linear or adaptive based on previous responses, as well as age- or grade-based equivalents). There is also variability in the language skills that are measured (e.g., oral language, literacy, and vocabulary). For example, only 23 of the assessments we reviewed assess literacy skills.

Moreover, most of these dual language assessments do not provide specific information about the Spanish version. Only five of the assessments clearly state that the Spanish version is a parallel version of the English version. Barrueco et al. (2012) reported that most English assessment tools have been carefully developed and validated but found that there was not much information about how the Spanish form was developed or validated. Most of the Spanish versions are simply translated versions of the English assessments. Using translated versions is problematic because the home language versions usually do not have appropriate norming samples; in fact, it is very likely that they were normed on monolingual populations (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education [AERA, APA, & NCME], 2014; August & Hakuta, 1997; Barrueco et al., 2012; Espinosa, 2008; G. E. García & Pearson, 1994). It also is possible that the language or literacy concepts being assessed have different meanings depending on the language (G. E. García, McKoon, & August, 2006). For example, issues of construct equivalence, dialect, or register may contribute to measurement error (Solano-Flores, 2006; van de Vijver & Poortinga, 2005). Also, many of the current dual language assessments have not been culturally validated with DLLs (Espinosa, 2008), and there are concerns that assessments for DLLs in the United States could be culturally biased (O'Malley & Pierce, 1996). In sum, dual language assessments that have not been designed, validated, and normed specifically for DLLs could have serious limitations when used with this population.

Another problem is that current dual language assessments evaluate each language separately (Hopewell & Escamilla, 2014). These assessments often treat the languages of bilinguals as sets of discrete skills that function independently. In other words, languages are assessed and scored separately, and the scores are then interpreted separately. For example, students may be penalized for using their home language on a test of English or for using English on a test of the home language. If the student demonstrates the target skill or conceptual understanding that is being evaluated, but uses a prohibited language, this information is not captured and is thus lost. As a result, many of the current dual language assessment measures do not provide information about the full extent of students' abilities, and the results could be interpreted as deficiencies in the language and literacy development of young DLLs (G. E. García et al., 2006).

Another major concern is that the validity and reliability of assessments administered in English to DLLs may be seriously compromised when the students are not sufficiently proficient in English (AERA, APA, & NCME, 2014). DLLs often demonstrate increased comprehension of English test items when they are allowed to use their home language (G. E. García et al., 2006). So for young DLLs, the results from initial screening efforts should be interpreted with caution because of the unique developmental characteristics of DLLs and the limitations of most current screening measures (Barrueco et al., 2012).

Need for Improved Dual Language Assessments for Young Dual Language Learners

Based on the limitations of current language and literacy assessments for young DLLs highlighted in the previous section, we can conclude that there is an urgent need for better designed, "appropriate, valid, and reliable language and literacy assessments" to understand how young DLLs are developing their language and literacy skills in order to help teachers improve instruction (G. E. García et al., 2006, p. 584). According to Bernhardt (2003), "When children come to school with a language other than English, diagnostic accuracy becomes simultaneously more critical and much more difficult" (p. 115).

Most of the current assessments employed to assess young DLLs have not been designed or adapted with considerations for DLLs—they assume that all students operate within one language. If children are assessed in a language they do not fully use or comprehend, or if they are assessed with invalid measures, their language skills could be underestimated. Invalid measures of language will result in cascading challenges, such as lack of appropriate student-level supports, lack

of appropriate instruction and follow-up, and even potential overreferral of typical language learners or underreferral of at-risk children. To develop valid assessments of young DLLs' language and literacy abilities, it is important to assess their entire linguistic repertoire.

Proposed Framework

General Description

We propose a dual language assessment framework that assumes language can be seen as a dynamic system, in the sense that it is composed of a set of variables that interact over time, and that interaction—among interlocutors and among the languages in the bilingual mind—is central (Verspoor, de Bot, & Lowie, 2011). From a dynamic systems perspective, it can be argued that the interaction between language systems is multifaceted and multidirectional, with each language system influencing and being influenced by the other language system (Herdina & Jessner, 2002). This framework also assumes that DLLs develop proficiencies in two languages and learn how to negotiate the relationships between them.

This framework is attentive to the linguistic practices of DLLs, including bilinguals who may already have attained proficiency in their languages. Various scholars point out that there are differences in the linguistic practices of bilinguals and monolinguals (Cenoz & Genesse, 1998; Herdina & Jessner, 2002). A bilingual "has a specific linguistic configuration characterized by the constant interaction and co-existence of the two languages involved" (Herdina & Jessner, 2002, p. 59). Cenoz and Genesse (1998) explained that although monolinguals and bilinguals share the same range of communicative situations, bilinguals possess "a larger linguistic repertoire than monolinguals" (p. 19). Moreover, bilinguals employ two or more languages interacting in various domains and communities of practice. In these interactions, bilinguals and multilinguals draw on all their linguistic resources in communication, using one or more languages in the same discourse or even in the same utterance.

The ability that bilinguals have to shuttle between languages is often referred to as *translanguaging* (Canagarajah, 2011). Translanguaging is rooted in the principle that language practices are dynamic and fluid and assumes that bilingual speakers have one linguistic repertoire, an integrated system from which they strategically select features to communicate effectively (Canagarajah, 2011; O. García, 2009). Therefore, when bilinguals engage in translanguaging, they use their language resources strategically according to the context and communicative needs (Canagarajah, 2011).

In this framework, we operate under two key assumptions. First, even within the same language groups, young DLLs in the United States are a diverse population. Second, DLLs use different language practices to communicate. Variability exists among DLLs in terms of (a) country of origin, (b) bilingual pathway, (c) exposure to languages, (d) exposure to literacy, (e) language and literacy development, (f) educational experiences, and (g) parental background. Young DLLs in the United States can demonstrate knowledge, skills, and abilities in different ways, including (a) in English, (b) in the home language, (c) by mixing English and their home language and by employing other translanguaging practices, and (d) by using nonverbal language (e.g., pointing, nodding, and facial expressions).

The framework consists of various components described below and illustrated in Figure 1.

Purpose of the Assessment

As previously noted, DLLs represent one of the fastest growing populations in the United States (Basterra et al., 2010). Approximately one in four students in U.S. schools speaks a language other than English at home, and these numbers are expected to continue rising in the coming decades (Ryan, 2013). Although DLLs in the United States speak more than 450 languages (Payán & Nettles, 2007), we initially propose using this dual language assessment framework in Spanish–English dual language programs to assess young DLLs entering kindergarten because approximately 70% of DLLs in the United States are from Spanish language backgrounds (Payán & Nettles, 2007), and it is critical to appropriately identify their initial strengths and weaknesses to better support their academic journey. We envision that this assessment could be used with students who use Spanish as their home language as well as with students who use English as their home language and are enrolled in dual language programs. We recognize that our assessment could be used in English language programs with Spanish-speaking ELs; however, we recognize that instructional time is critical, and it has yet to be determined if the dual language assessment and results would be a feasible addition to English mainstream

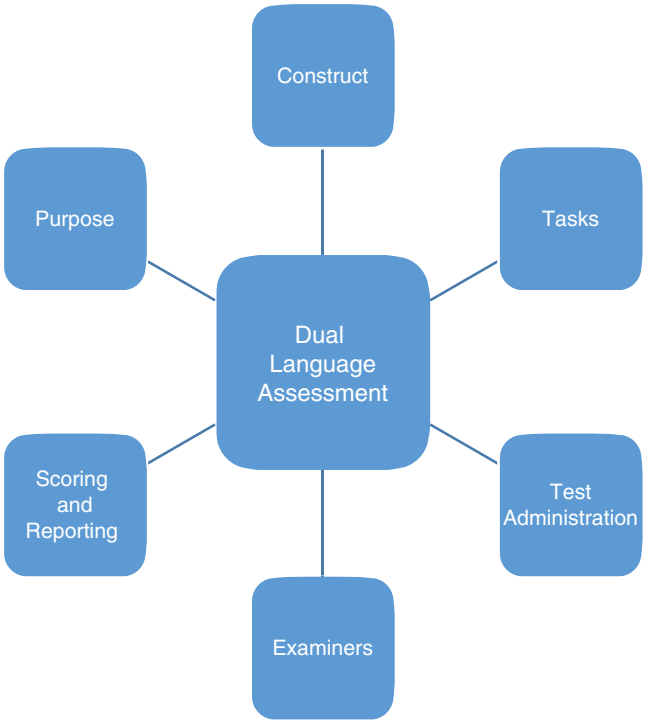

Figure 1 Breakdown of the dual language learner framework components that inform our dual language assessment design.

programs. As a result, we focus on dual language programs, with the awareness that our assessment may be applied to other programs, assuming the key criteria of the assessment are met.

The purpose of this assessment framework is to measure specific language and literacy knowledge, skills, or abilities that DLLs should develop prior to entering kindergarten so that their incoming kindergarten teachers can make sound instructional decisions to support the students' language and literacy development. School personnel can use this framework, in conjunction with the English language proficiency assessment required at the state or local level, for the identification of DLLs. This process should also include information from the parents about their child's language and literacy development. Together, these resources can serve as a screener for the early identification of young DLLs who may be at risk for reading failure. Additionally, these resources could be used collectively as a piece of evidence to help distinguish between normal language development of DLLs and those with potential language delay or disorder.

Construct

The dual language assessment framework we are proposing is aligned with the language and literacy goals of the Head Start Child Development and Early Learning Framework (U.S. Department of Health and Human Services, 2015). The Head Start framework is governed by guiding principles and targets five central domains (approaches to learning; social and emotional development; language and literacy; cognition; and perceptual, motor, and physical development). Our proposed framework for dual language assessments is more closely aligned to the language and literacy domain and associated knowledge, skills, and abilities children should possess around 3 to 5 years of age—pivotal skills that are considered predictive of later success in learning to read and write (see Appendix B) and thus can be applied to additional subject areas (e.g., the language of science, the language of mathematics).

To understand how young DLLs are progressing toward the development of specific language and literacy skills, it is critical to understand the child's demographic characteristics, language and educational experiences, and home and school environments. Consequently, the dual language assessment framework we are proposing requires that teachers and schools collect additional information about the child's pathway to bilingualism—for example, the Planned Language Approach used by Head Start. This information can be provided by the child's parents or primary caregivers. Some of the information that needs to be collected includes

- demographic characteristics, such as where the child was born, how long the child has been in the United States, where the parents are from, and where the child has lived;
- language experiences, including the language(s) the child has been exposed to, how the child uses the language(s), and the language(s) the adults and other children in the child's household use;
- literacy experiences, including the types of literacy experiences the child has had (i.e., the literacy activities practiced at home, the literacy activities practiced at preschool), and whether the literacy practices are in the home language or in English;
- formal educational experiences, including the child's participation in preschool and other academic programs prior to kindergarten, the amount of time in each program, the language(s) of instruction, and the time allocated for each language; and
- informal educational experiences, which include the child's interactions in informal educational opportunities with family members (i.e., shared reading, discussions) and the languages used to engage in these experiences.

Results from these data collections should always be interpreted with caution, given that these behaviors generally represent a traditional European-American approach to literacy and language activities and may not be totally reflective of the activities used in the homes of culturally and linguistically diverse children. Ideally, any survey of key variables of interest (validated for the target population) should be paired with observations for other instances of language and literacy activities not captured by the survey.

Tasks

To acknowledge cultural and linguistic diversity among DLLs, assessment tasks that are *culturally appropriate* should be developed. Culturally appropriate assessments can be defined as those that recognize and embrace diversity among the student population and do not include inappropriate referents or content that could potentially have unintended meanings for different students (National Association for the Education of Young Children [NAEYC], 2005; Padilla, 2001). Culturally appropriate assessments require that the assessment materials (e.g., texts, illustrations, contexts, topics) acknowledge diversity across cultures, gender, ethnicity, and race and represent nonstereotypical views of different cultural groups (Santos, 2004). Moreover, culturally appropriate assessments should not include content that may be biased and could give an unfair advantage to one cultural group over another. They also should not require that students have prior knowledge of American culture or familiarity with U.S. school contexts (Padilla, 2001).

The content of dual language assessments should be relevant to all students regardless of their backgrounds and should be engaging, to allow all students an equal opportunity to demonstrate their language and literacy abilities, skills, and knowledge. To make the tasks engaging, content, topics, and stimuli should be relevant to young learners (NAEYC, 2005). One way to engage young DLLs during the assessment process is to use *contextualized tasks*. Contextualized tasks comprise a series of related items that unfold within an appropriate and purposeful context, allowing students to use multiple language skills (Pooler & Lopez, 2013). For example, a contextualized task may require students to model their listening and speaking skills when listening to a short story being read aloud and then retelling the story to the teacher or a peer. Also, technology-enhanced tasks have the potential to be more engaging for young learners, as they can incorporate the use of animation rather than static images (Lopez & Wolf, 2013). In designing technologically enhanced assessment tasks, special attention should be paid to students' level of experience with the relevant technology. Thus, students must have sufficient opportunity to familiarize themselves with technology-enhanced features before they take dual language assessments that are computer based.

Test Administration

Many young DLLs are not yet familiarized with school contexts and culture in the United States. Moreover, young DLLs usually are first-time test takers who are unfamiliar with formal test procedures (Guzman-Orth, Laitusis, Thurlow, & Christensen, 2016), which itself can contribute to measurement error. Clarity in what exactly is being measured and how it is measured is, therefore, critically important with young DLLs whose language and literacy development are in the early stages and can vary widely. Since the assessment results of a young DLL's skills may reflect the degree of comfort the child feels toward the examiner, it is critical to create a supportive assessment environment. The latter requires including and valuing young DLLs' linguistic and cultural resources and experiences. Also, to ensure developmentally appropriate

practices, assessments for young DLLs should be relatively brief or administered in short sessions (Epstein, Schweinhart, DeBruin-Parecki, & Robin, 2004).

Special consideration should be given to developmental and contextual factors that might impact the students' performances on these assessments (Bailey, 2008; McKay, 2006; NAEYC, 2005). It is very important that all test examiners, including teachers and other school and district personnel, are adequately trained and knowledgeable about the assessment of young DLLs, second language development, bilingual development, and child development (Espinosa & García, 2012; NAEYC, 1995, 2005; Santos, 2004). Thus, dual language assessment examiners should be sensitive and responsive to cultural and linguistic differences (NAEYC, 2005).

Examiners

Our proposed dual language assessment framework requires that examiners (e.g., teachers) be bilingual (or multilingual) themselves. Even if the examiners share the same home language as their students, they need to be biliterate with regard to the subject areas they are teaching. Moreover, examiners need to be knowledgeable about dual language and literacy development. Teachers and other school personnel who administer English language proficiency assessments to young learners often do not have adequate training in language development or in assessing young learners (Wong Fillmore & Snow, 2002). Examiners also need to be sensitive to regional dialectal variation that may emerge in a DLL's vocabulary, accent, grammar, syntax, or morphology. Most teachers and assessment professionals have not been trained to conduct nondiscriminatory assessments with children from culturally and linguistically diverse backgrounds, do not speak the children's native languages, and are unfamiliar with their home cultures (Espinosa, 2013).

The examiners in our dual language assessment framework will serve as mediators in the sense that they will work together with young DLLs to negotiate and create meaning. We borrow from Kohler (2015) our definition of *mediation* as a set of practices that help build connections between the students' knowledge in the home and the second language. The interaction between the examiner and the young DLL reflects the complex translanguaging practices that are common among today's DLLs and in DLL classrooms (e.g., Celic & Seltzer, 2011; O. García, Makar, Starcevic, & Terry, 2011; Hesson, Seltzer, & Woodley, 2014). Translanguaging between the examiner and the young DLL allows for flexible language in the assessment that mediates understanding of the language and completion of the tasks through the use of the most accessible language in the student's repertoire (Kohler, 2015). Through mediation, the examiner enables the young DLL to navigate through the assessment and to negotiate the relationship between all the languages in the student's repertoire. Because many schools or classrooms have language practices that do not allow bilingual students to use their entire linguistic repertoire (Canagarajah, 2011; DeNicolo, 2010; O. García, 2009), the examiner should encourage young DLLs to use all their languages, including mixing them if needed, to demonstrate their language and literacy abilities, skills, and knowledge. Although the examiner and the young DLL work together to negotiate language differences in multiple languages, this negotiation is not confined to the use of languages. In fact, the negotiation of meaning is also multimodal (Kress, 2003). This means that the test administrator and the student use a wide range of modes (e.g., written language, oral language, visual representations) and mix them whenever needed. This wide acceptance of communicative knowledge and skills may help, in turn, to foster a comfortable and nonthreatening environment for young DLLs to demonstrate what they know and are able to do. Mediation opportunities should be designed directly into the assessment to allow the examiners flexibility to meet the needs of the child while still adhering to assessment administration concerns of standardization.

Scoring and Reporting

Conceptual scoring will be implemented in this dual language assessment framework. This scoring method allows for the scoring of response content without regard to the language in which the response is given (Barrueco et al., 2012). In language assessments, using conceptual scoring has produced results in which bilingual children demonstrate scores comparable to those of monolingual children. For example, a bilingual child may demonstrate smaller expressive vocabulary in one of the languages that he or she speaks, but when responding to prompts and when the child's conceptual use of vocabulary is documented across both languages, the child's overall expressive vocabulary is comparable to that of a monolingual child's (Bedore, Peña, García, & Cortez, 2005). In the context of dual language assessments for young DLLs, conceptual scoring allows for the student to communicate his or her language and literacy abilities, skills, and knowledge using the student's full language repertoire, including English, Spanish, code mixing, and nonverbal language.

Conceptual scoring may yield more meaningfully interpretable information about a DLL's language skills, but in practice, the application could be limited. High stakes assessments, for example, may be driven by federal policy for construct and score reporting information (e.g., English language proficiency assessments), so conceptual scoring in these instances may not be appropriate if the goal is to compare DLLs' English skills to monolingual students' English skills. For the purposes of our framework, we envision conceptual scoring to be applicable more for low stakes (or no stakes) initial assessment, or a formative assessment context.

The dual language assessment framework will provide information to teachers and parents about students' general language and literacy knowledge, skills, and abilities (school readiness) instead of specific knowledge, skills, and abilities in a particular language. Scores on the dual language assessment framework will be provided for different aspects of language, including oral language, comprehension, and literacy. The score report will provide useful information that teachers can use to design instruction and plan interventions by illustrating what the students know and are able to do at the beginning of kindergarten, highlighting the students' strengths and weaknesses and showing how the students use their languages. The latter means reporting on (a) the languages that students used to complete the tasks, (b) preference for a particular language, (c) dominance of one language over another, (d) use of code mixing and other translanguaging practices, and (d) use of nonverbal language. The score report will also include information about students' demographic characteristics, language and educational experiences, and home and school environments.

Summary

The dual language assessment framework we describe above addresses an urgent need for better designed language and literacy assessments that are linguistically and culturally appropriate for young DLLs. The framework reflects a heteroglossic view of language; thus, it views DLLs as having an integrated language system that they can use dynamically according to the context and their communicative needs. The proposed framework is also sensitive to the fact that DLLs are diverse in terms of background characteristics, exposure to languages, use of languages, and literacy and educational experiences. Consequently, it promotes the use of all the learners' linguistic resources (e.g., the home language and a second language, such as English), the mixing of languages, and the use of nonverbal language (e.g., gestures, pointing) to demonstrate language and literacy ability, skills, and knowledge. The use of conceptual scoring will allow teachers to gather useful information about the language and literacy development of young DLLs.

The main goal of this dual language assessment framework is to assess incoming kindergarten students in Spanish–English dual language education programs at the beginning of the school year. The framework will allow school personnel and teachers to evaluate whether young DLLs have developed essential school readiness skills that are expected by kindergarten teachers for all children entering kindergarten. School personnel and teachers can use this framework to determine if a child has demonstrated expected general language and literacy knowledge, skills, and abilities. Assessment data will be used in conjunction with the child's background information, including country of origin, length of time in the United States, parents' background, home language and literacy experiences, and school language and literacy experiences. Teachers can use this information to guide and plan instruction to better serve young DLLs.

Next Steps

A conceptual framework for assessing young DLLs is a key starting point. Future research should consider the development of specific assessment tasks and corresponding instructions for the administration of the assessment, as well as score reports, to meet the specifications set forth by this framework document. The development work should be prototyped with the appropriate audience to determine the usability, as well as the validity and reliability, of these dual language assessment tasks to better meet the needs of young DLLs in the United States.

Notes

1 Students taking kindergarten entry assessments may do so at various points in time; some may do so at the end of prekindergarten, or when kindergarten instruction has already begun. Due to this variability, we will include references to key early childhood literature so that we can capture the nuances of this transition into kindergarten.

2 For the purpose of this paper, we recognize that language proficiency is an ongoing process that may not be well defined with age, and that there can be limitations with traditional nomenclature treating language acquisition as a mutually exclusive category (e.g., DLL or EL). As a result, we adopt an inclusive approach to our terminology and use the term DLL, recognizing that it is also inclusive of students who may be identified as ELs who are actively acquiring language. Instances where "EL" is noted in the paper are reflective of the terminology used in the cited research.

3 For discussions of terms, see the CECER-DLL website at http://cecerdll.fpg.unc.edu, and NCELA's glossary of terms at http://www.ncela.us/files/rcd/BE021775/Glossary_of_Terms.pdf

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Appendix A

Table of Reviewed Assessments for Young Spanish/English Dual Language Learners

Product name	Publisher
aimsweb®[a]	Pearson
Aprenda 3 (Aprenda®: La prueba de logros en español, Tercera edición)	Pearson
Assessment of Basic Skills 9 (rev. Spanish ed., Brigance ABS-R)	Curriculum Associates
Batería-III (Woodcock-Muñoz)	Riverside Publishing
Bilingual English–Spanish Assessment (BESA)[a]	AR-Clinical Publications
Bilingual Syntax Measure I and II. (BSM-I and BSM-II, BSM-Medida de sintaxis bilingüe)	Harcourt Assessment
Bilingual Verbal Ability Tests™ (BVAT™ Normative Update)	Riverpub / Houghton Mifflin Harcourt
Boehm-3, Boehm Test of Basic Concepts (3rd ed.)	Pearson
Boehm-3 Preschool[a]	Pearson
Boehm-3, Boehm Test of Basic Concepts (3rd ed.)	Pearson
Cambridge Step by Step Assessment to Language Dominance (SSALD)	Cambridge (Massachusetts) Public Schools
Children's Progress Academic Assessment (CPAA)	NWEA (Northwest Evaluation Association)
Early Language Listening and Oral Proficiency Assessment (ELLOPA)	Center for Applied Linguistics (CAL)
Evaluación del desarrollo de la lectura® 2 (EDL2) *Developmental Reading Assessment* (DRA)	Pearson
Evaluación del nivel independiente de lectura (ENIL)	American Reading Company
Expressive One-Word Picture Vocabulary Test-4: Spanish-Bilingual Edition (EOWPVT-4: SBE)	ATP (Academic Therapy Publications)
Foreign Language Oral Skills Evaluation Matrix (FLOSOM; Stanford)	California Foreign Language Project, Stanford, CA; adapted from the SOLOM
Get Ready to Read!	Pearson
IDEA Oral Language Proficiency Test (Pre-IPT, IPT-Oral I & II, English and Spanish)	Ballard & Tighe
IDEA Reading and Writing Proficiency Test (IPT-R &W 1, 2 & 3, English & Spanish)	Ballard & Tighe
Indicadores dinámicos del éxito en la lectura (IDEL). The Dynamic Indicators of Basic Early Literacy Skills (DIBELS—Research based)	University of Oregon Institute for the Development of Educational Achievement
Istation's Indicators of Progress—Español (ISIP Español)	Istation
Language Assessment Scales Reading/Writing (LAS-R/W)	CTB McGraw-Hill
Language Assessment Scales-Oral (LAS-O)	CTB McGraw-Hill
LAS Links Assessments (Español-A)	McGraw-Hill Education
LAS Links Assessments (Español-B)	McGraw-Hill Education
Logramos® (2nd ed.)	Riverside Publishing
Oral Language Acquisition Inventory (2nd ed.)	Pearson
Phonological Awareness Literacy Screening in Spanish (PALS Español)	PALS Marketplace
preLAS	McGraw-Hill Education
preLAS Observational Assessment® for 3-year-olds	McGraw-Hill Education
Preschool Language Scale (5th ed., PLS-5 Spanish)	Harcourt Assessment
Prueba de Habilidades Académicas Iniciales (PHAI)	ProEd Inc.
Receptive One-Word Picture Vocabulary Test (4th ed.). In Spanish-Bilingual Edition (ROWPVT-4: SBE)	ATP (Academic Therapy Publications)
Sistema de evaluación de la lectura (SEL)	Heinemann
Spanish Structured Photographic Expressive Language Test-3 (Spanish SPELT-3)[a]	ATP (Academic Therapy Publications)
Standards-based Measurement of Proficiency (STAMP)	Avant Assessment
Stanford Spanish Language Proficiency Test (SSLP)	Pearson
Student Oral Language Observation Matrix (SOLOM)	San Jose Area Bilingual Consortium, revised by the California Department of Education
Test de vocabulario en imagenes Peabody (TVIP)	Pearson
Test of Early Language Development (3rd ed., Spanish, TELD-3:S)	ProEd Inc.
Test of Phonological Awareness in Spanish (TPAS)	Houghton Mifflin Harcourt
Woodcock-Muñoz Language Survey® 9, Revised Normative Update (WMLS®—R NU)	Riverside Publishing

[a]Indicates assessments found through our Internet search and not included in the Center for Applied Linguistics (2014) updated review.

Appendix B

Essential School Readiness Knowledge, Skills, and Abilities

Language Abilities and Skills

- Oral language
  - Receptive language (listening)
  - Expressive (productive) language (speaking)
  - Vocabulary (receptive and expressive)

Literacy Knowledge and Skills

- Phonemic awareness
- Phonological awareness
- Alphabet knowledge
- Print concepts and conventions
- Listening comprehension of texts
- Early writing

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