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Ahyoung Alicia Kim, Akira Kondo, and Mariana Castro
WIDA, Wisconsin Center for Education Research
University of Wisconsin–Madison
alicia.kim@wisc.edu

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Examining Preschool-aged Dual Language Learners' Language Use: From a Functional Approach

Ahyoung Alicia Kim, Akira Kondo, and Mariana Castro

The number of young English language learners in the United States has been steadily increasing (Garcia & Jensen, 2009). These are "linguistically and culturally diverse students who have been identified as having levels of English language proficiency that require language support to achieve grade-level content in English" (WIDA, 2012, p.113). According to the U.S. Department of Education, approximately 4.85 million English language learners were enrolled in the K-12 public school system in 2012–2013, which represents 10% of the student population (Batalova & McHugh (2010). Forty percent of all English language learners are ages 3 to 8 years old (Liu, Ortiz, Wilkinson, Robertson, & Kushner, 2008), and about one in four preschool-aged children live in homes where a language other than English is spoken (García & Frede, 2010).

Many English language learners ages 2.5 to 5.5 years are learning two or more languages. These *dual language learners* (DLLs) are children who "acquire two or more languages simultaneously and learn a second language while continuing to develop their first language" (Office of Head Start, 2008). This definition comprises common terms, such as limited English proficient, bilingual, English language learners, and children who speak a language other than English (Office of Head Start, 2008). Furthermore, the Head Start definition recognizes that "the home language (as well as its connection to culture) is a protective factor for the well-being of young children" (National Clearinghouse for English Language Acquisition, 2011, p. 10).

While some DLLs in the United States are exposed to a home language(s) and English from birth, others are not exposed to English until they reach preschool (Shin & Kominski, 2010). Once in preschool, DLLs encounter myriad linguistic and cultural cues in English that differ from the norms of their home languages and cultures. In school, DLLs are surrounded by new social languages (Gee, 2010), where their language use deviates from the monolingual norms of language development and use. Because DLLs are acquiring multiple languages, their English language development is often observed to lag behind that of monolingual native-English speakers (Cannon, Jacknowitz, & Karoly, 2012). Research indicates that such gaps may continue through third grade (Cannon & Karoly, 2007).

Despite efforts to document early language development for home and English languages (e.g., Hammer, Lawrence, Rodriguez, Davison, & Miccio, 2011; Scheele, Leseman, Mayo, & Elbers, 2012), a lack of educational resources has impeded our understanding of DLLs' language development and how to support them linguistically through instruction in academic settings. Supporting DLLs is important because life and language experiences during the first five years of life have a profound and lasting impact on academic success. For instance, language-rich environments that include exposure to developmentally appropriate academic language and early literacy experiences prior to kindergarten strongly correlate with children's reading comprehension, and ability to process and use academic language during elementary school and

beyond (Ackerman & Tazi, 2015; Bailey & Huang, 2011; Scheele, Leseman, Mayo, & Elbers, 2012; Schleppegrell, 2012; van Kleeck, 2014; van Kleeck & Schwarz, 2011).

Efforts to support DLLs need to be combined with a deeper understanding of their language development and use based on empirical research, a void the current study aims to fill. Much of the research on dual language development is from a structural approach (e.g., Barnes, Gutfreund, Satterly, & Wells, 1983; Brown, 1973; Huttenlocher, Vasilyeva, Cymerman, & Levine, 2002; Lust et al., 2014). Many of these studies compared DLLs' language structures to those of monolingual children. However, little is known about DLLs' language development from a functional approach that focuses on what these learners *can* do with language in relation to their real-life situations, and when they use language for specific purposes such as expressing needs or feelings. Considering that DLLs are in their early stages of language development, their languages may not be as structurally complex as that of monolingual counterparts in the same age group. Nevertheless, DLLs are capable of using English for various functions. It is, therefore, necessary to build an understanding of what DLLs can do with the multiple language(s) they are developing every day. Moreover, such understanding may provide practical implications for instruction and assessment of DLLs.

The purpose of this study is to understand preschool-aged DLLs' language use from a functional approach. This paper draws upon theories on systemic functional linguistics (e.g., Halliday, 1978, 1985, 1994) to analyze language function. In detail, we analyzed how learners from different ages groups (i.e., ages 2.5 to 3.5 years vs. 3.5 to 4.5 years vs. 4.5 to 5.5 years) used language functions "to understand the structures underlying the utterances of the child to the extent that we understand the purpose [s/he] is using language for" (Halliday, 1970, p. 322). Specifically, this paper answers the following two research questions in relation to DLLs' language use in academic learning contexts:

1. What are the main language functions used by DLLs in different age groups (i.e., ages 2.5-3.5 years vs. 3.5-4.5 vs. 4.5 vs. 5.5)?
2. To what extent do DLLs from different age groups (i.e., ages 2.5-3.5 years vs. 3.5-4.5 vs. 4.5 vs. 5.5) use language functions?

Literature Review

Overview of DLLs' Language Development

Human language acquisition is innate and inevitable (Chomsky, 1975, 1981, 1986; Hoff, 2006). Children are social beings whose language acquisition and development are influenced by their social and cultural contexts (Ochs & Schieffelin, 2001). Despite these contexts, first language acquisition researchers have sought to understand fundamental and universal elements of children's language acquisition in morphology (Berko, 1958; Brown, 1973), phonology (Kuhl, Williams, Lacerda, Stevens, & Lindblom, 1992; Smith, 1975), syntax (Bloom, 1970; Kilma & Bellugi, 1966), and semantics (Papandropoulou & Sinclair, 1974).

To compare monolingual and bilingual children's language acquisition and development, researchers have typically examined and compared their linguistic developmental processes such as their orders of morphological acquisition (Brown, 1973; Curtiss, Fromkin, & Krashen, 1978; de Villiers & de Villiers, 1973; Kessler, 1975). In a pioneering work that examined monolingual English-speaking children's language development, Brown (1973) demonstrated the three children he observed showed similar and predictable orders of acquisition of 14 grammatical morphemes.[1] Dulay and Burt's (1973, 1974) cross-sectional studies of child second language order of acquisition of morphemes confirmed that differences exist in the order of acquisition of morphemes between learners of English as first language (L1; Chinese and Spanish, in this case) vs. second language (L2) because different languages have different systems of morphemes (e.g., bound and free morphemes). Dulay and Burt (1974) concluded that "11 English functors[2] for native Chinese- and Spanish-speaking children are virtually the same" (p. 51), arguing that "universal cognitive mechanisms are the basis for the child's organization of a target language, and that it is the L2 system, rather than the L1 system that guides the acquisition process" (p. 52).

Unlike monolingual children's language development, DLLs' development varies greatly due to factors such as parents or caregivers' belief in language planning at home (De Houwer, 2009); an increased dominance of English and decreased exposure to the home language, leading to attrition of that first language (Seliger, 1991); and social and institutional support for DLLs (Magruder, Hayslip, Espinosa, & Matera, 2013). Bilingualism and second language acquisition researchers have, in general terms, opposed the view that DLLs are "two monolinguals in one body" (Kecskes & Papp, 2000, p. ix). Rather, DLLs develop separate linguistic systems that have cross-linguistic effects (Kupisch, 2007, 2014; Mishima-Mori, 2005). Unlike successive bilingualism in which one language is learned first, followed by the second, maintaining home and socially dominant languages is not easy. In many cases of language maintenance among DLLs, development of their home language typically slows (Anderson, 1999; Gutierrez-Cleleen, 1999) once DLLs are exposed to the socially dominant language.

Due to the complexity of DLLs' language development, our understanding remains limited (Hammer, Jia, & Uchikoshi, 2011; McCardle & Hoff, 2006). We also know little about the nature of their language use in various contexts, including academic and non-academic contexts, making generalization of their language development a challenge. In response to the need to examine DLLs' language development, DLL research has included comparisons of monolingual and bilingual children's language and literacy development (e.g., De Houwer, 1990, 2002; Fernald, 2006; Hammer, Jia, & Uchikoshi, 2011; Moon & Reifel, 2008; Peterson & Heywood, 2007; Páez, Tabors, & López, 2007; Weisleder & Fernald, 2013), language assessment (e.g., Downer et al., 2012; Espinosa, 2014; Genesee & Nicoladis, 2009), school readiness (e.g., Ballantyne, Sanderman, & McLaughlin, 2008; Castro, Páez, Dickinson, & Frede, 2011; Kieffer, 2008), and cognitive development (e.g., Barac, Bialystok, Castro, & Sanchez, 2014).

[1] Hulstijn, Ellis, and Eskildsen (2015) said "this claim was at variance with what researchers working in the behaviorist-structural traditions had been claiming" (p. 2).
[2] Functors included noun, verb, inflections, articles, auxiliaries, copulas, and prepositions.

Little research explores functional aspects of DLLs' language use. Most recently, Hammer et al. (2014) examined 182 peer-reviewed articles, and found they focused on language and literacy development of DLLs during early childhood with no reference to what these learners can do with the languages they are developing every day, nor to their use of languages. While DLL researchers should examine the language-learning environments that facilitate and influence simultaneous acquisition and development of home and social languages (Dijkstra & Van Heuven, 2002; Grosjean, 1998, 2000), we also need to delve into DLLs' unique language uses.

DLLs' Language Use: A Functional Approach

While functional analysis of DLLs' language use remains scarce, some studies were done on monolingual preschool-aged children's functional uses of language. For example, Pellegrini (1983) focused on three separate same-age classrooms (2, 3, and 5 year olds) during free play periods and collected language samples to understand how monolingual preschool-aged children's utterances served multiple functions. Analysis was conducting by following Halliday's (1969) model of language functions among preschool and school-aged children. Findings indicate that fantasy play and social interaction among children promoted more multifunctional utterances than teacher-led learning centers (p. 390), and their language functions depended on contexts (i.e., fantasy play vs. learning centers) (p. 392). Furthermore, similar to the findings in Halliday (1969), results indicated that children's language functions became more complex (e.g., multifunctional) with age, in accordance to their cognitive maturity. In a similar vein, Pelligrini (1986) studied 4 and 5 year olds in play centers to examine their language of displacement, or the ability to communicate about things not present in space or time. Similar to Pelligrini (1983), older children's language of displacement was characterized by uses of third-person pronouns and non-present tense verbs. These findings suggest that normally developing children's multifunctional use of language is context-sensitive and dependent on cognitive maturity.

To examine DLLs' language use from a functional approach, we first need to identify a framework for analyzing language use, including how they tactically use English to meet their needs in appropriate context, time, and space. The most pertinent literature is Halliday's (1978, 1985, 1994) systemic functional linguistics, which views children as social beings for whom language plays a crucial role in facilitating membership of a cultural group (Painter, 1991). In Halliday's words, "[l]anguage is the main channel through which the patterns of living are transmitted to him [the child], through which he learns to act as a member of a 'society'—in and through the various social groups, the family, the neighbourhood, and so on" (Halliday, 1978, p. 9). Therefore, what the speaker hears—the system of rules—can affect the language structure (Halliday, 1973). This possibility suggests the need to examine what DLLs *can* do functionally with language in relation to real-life situations that matter to them, rather than to determine whether they know how to construct sentences without making grammatical mistakes.

Adults use language in much more complex ways, both semantically and pragmatically, than young children do. As young children grow, their language becomes highly coded and carries abstract functions in a systematic and finite form. For example, the 3-year-olds in Tough's (1977)

"language and environment project" used language effectively to communicate with others. Despite some problems of articulation in their speech and some malformed utterances, "they had all established a wide range of basic structures of English" (Tough, 1977, p. 9). Similarly, Halliday (1975) sought to understand children's language development as "the mastery of linguistic functions" (p. 345). Of particular relevance to the application of Halliday's approach is young children's use of oral language. This functional view is, therefore, a shift from the structural linguistic perspective to an understanding of what young language learners (e.g., DLLs) intend to accomplish using cultural and linguistic resources that surround them. The functional view is based on the premise that young children's learning of language means learning a system of meanings. This view emphasizes the interpretation of young children's use of language through semantics: how children understand or express meaning (Halliday, 1975, p. 8).

Halliday (1975) identified seven functions of language that preschool and school-age children often use to serve various functions of language:

(1) Instrumental (meet one's needs),
(2) Regulatory (influence others' behavior),
(3) Interactional (form a relationship that includes and excludes others),
(4) Personal (express one's feelings),
(5) Heuristic (explore one's environment and its relation to self),
(6) Imaginative (create an imaginative environment and act out), and
(7) Representational (present/convey information).

These functions are references for examining DLLs' language use in this study.

Methodology

Data

The data from this study were from a larger dataset of 123 video recordings of 32 DLLs ages 2.5 to 5.5 years. During the time of data collection, they all attended preschool in the Midwest where English was the primary language of instruction. Their English language development levels varied according to WIDA[3] Early English Language Development (E-ELD) Performance Definitions[4] (WIDA, 2014a): Levels 1 (Entering), 3 (Developing), or 5 (Bridging). Twenty-six video recordings of 14 DLLs were selected: Videos containing little or no spoken linguistic data were excluded. In addition, video data whose primary language was not English were excluded since the purpose was to examine DLLs' English language use. The video clips each were about 2 to 3 minutes long.

[3] WIDA, housed within the University of Wisconsin–Madison, is an organization dedicated to providing standards, assessments, and professional learning opportunities for preK-12 English language learners and their educators within the United States and abroad.

[4] The Performance Definitions are guidelines to determine DLLs' quantity and variety of oral language (linguistic complexity) and the types and use of oral language structures, phrases, and words (language usage) at three distinct levels (Levels 1, 3, and 5) of English language development (WIDA, 2014a).

The 14 DLLs (Table 1) included three children ages 2.5 to 3.5 years, five ages 3.5 to 4.5 years, and six ages 4.5 to 5.5 years. Their English development varied from Levels 1, 3, or 5 according to the E-ELD Performance Definitions (WIDA, 2014a). The selected DLLs for this study included boys (*N* = 7) and girls (*N* = 7). Their home languages varied: French (*N* = 1), Hmong (*N* = 2), Hungarian (*N* = 1), Laotian (*N* = 1), Mandarin (*N* = 2), Nepali (*N* = 2), and Spanish (*N* = 5). Five children used one or two of these language along with English at home, whereas the nine others were not exposed to English at home. Children's onset of English exposure also varied from birth to 48 months. Table 1 summarizes the DLLs' backgrounds.

Table 1. **Background Information of DLLs**

Name[a]	Age Group (in Years)	E-ELD Level	Gender	Home Language(s)	Onset of Exposure to English (in Months)
Kane	2.5-3.5	1	M	Mandarin	5
Laura	2.5-3.5	3	F	Mandarin	unknown
Helen	2.5-3.5	5	F	Hungarian	22
Bob	3.5-4.5	1	M	Hmong	5
Jason	3.5-4.5	3	M	English, Spanish	unknown
Ben	3.5-4.5	3	M	Nepali	11
Yeddie	3.5-4.5	5	M	Nepali	26
Ursula	3.5-4.5	5	F	French	48
Seth	4.5-5.5	1	M	English, Spanish	birth
Daisy	4.5-5.5	1	F	Hmong	18
Alex	4.5-5.5	3	M	Spanish	14
Bella	4.5-5.5	5	F	English, Spanish	birth
Bonnie	4.5-5.5	5	F	English, Spanish	birth
Heather	4.5-5.5	5	F	English, Hmong, Laotian	birth

[a]These names are pseudonyms.

Instrument—Coding Scheme for Key Uses of Academic Language

To analyze DLLs' functional use of English, an appropriate framework for this study was developed by drawing upon Halliday's (1978, 1985, 1994) systemic functional linguistics and *WIDA Key Uses of Academic Language* (WIDA, 2014b). The *Key Uses of Academic Language* describes English language learners' language use in academic settings based on a language analysis of college and career readiness standards. However, it is primarily for children in grades K-12. Thus, for the purpose of this study, *key language uses of DLLs*, a new framework of functional uses of language for preschool-aged DLLs, was developed. Out of Halliday's (1975) seven language functions, the key language uses of DLLs draws on these five types of language use: argue, explain, heuristic, recount, and request because they more directly related to academic language use as defined by WIDA. Table 2 summarizes the five key language uses of DLLs.

Table 2. **Five Key Language Uses of DLLs**

Key Language Use	Definition	Example
Argue	making a point/state preference; making a claim, and using evidence/reasons as support	"Don't take my toy!"
Explain	cause and effect; consequences to actions	"Mommy like flower."
Heuristic	language for learning, exploring, investigating, and inquiring	"What he doing?"
Recount	telling or retelling stories; describing actions, settings, environment; playing imaginatively	"I'm a superman!"
Request	asking questions or making statements to obtain something or for something to happen	"I want this!," "Give me!"

Procedures for Data Collection and Analysis

The DLLs' language data were video-recorded while the children engaged in everyday activities, including free play, at preschools without any planned prompts. A member of the research team, who was a Spanish-English bilingual speaker, occasionally served as DLLs' interlocutor to elicit utterances from children (e.g., "What are you doing?").

All 26 video clips were transcribed, then analyzed by referring to the five key language uses presented in Table 2. The language data were analyzed for emerging patterns of key language uses across different ages groups (i.e., 2.5 to 3.5 years, 3.5 to 4.5 years, and 4.5 to 5.5 years) and language development Levels 1, 3, and 5. In addition, a syntactic analysis of DLLs' spoken data was conducted to examine whether DLLs' key language uses involved different levels of syntactic complexity in relation to each child's language development level. For example, even if DLLs use the same language function (e.g., argue, request), the syntactic complexity may vary depending on their language development level. This analysis was done to understand the DLLs' language patterns (e.g., uses of specific vocabulary, syntactic forms, or conventions) for particular uses of language. For instance, an analysis of syntactic complexity involved identifying the mean length of an utterance or complexity of sentences.

Findings and Discussion

The DLLs in this study demonstrated varying key language uses in relation to their age groups of 2.5 to 3.5 years, 3.5 to 4.5 years, and 4.5 to 5.5 years. While the key language uses of DLLs aged 2.5 to 3.5 were limited to *request* and *argue*, older DLLs demonstrated more diverse uses. Table 3 summarizes the 14 learners' key language uses across age groups and E-ELD levels. Overall, *request* was one of the most basic language functions, observed in the youngest age group, whereas *explain* was observed more frequently in the group of 4.5- to 5.5-year-olds. These results suggest that *explain* may require higher cognitive skills that may not be immediately available to children 2.5 to 3.5 years old. Because the age at which the DLLs in our study were first exposed to English varied, we cannot generalize these results. Nevertheless, it is evident that DLLs are learning and developing English with speed. More detailed findings are discussed according to each age group below.

Table 3. **Summary of Key Language Uses**

	2.5-3.5	**3.5-4.5**	**4.5-5.5**	**Total**
Level 1 (Entering)	Request: 1	Explain: 1	Argue: 2	Argue: 2 Explain: 1 Request: 1
Level 3 (Developing)	Argue: 1	Recount: 1	Explain: 1	Argue: 1 Explain: 1 Recount: 1
Level 5 (Bridging)	Request: 1	Heuristic: 1 Recount: 1	Argue: 1 Explain: 2	Argue: 1 Explain: 2 Heuristic: 1 Request: 1 Recount:1
Total	Argue: 1 Request: 2	Explain: 1 Heuristic: 1 Recount: 2	Argue: 3 Explain: 3	

Group Age 2.5 to 3.5 Years

DLLs 2.5 to 3.5 years old used *argue* and *request*. Laura (Level 3) used *argue* in her interaction with her teacher, who was sitting with her and other children to play with alphabets. The teacher spread letters on the floor and asked children to find the letters in their names.

> [Ages 2.5-3.5 Level 3: Laura (L; focal) and teacher (T) playing with alphabet]
> T: Do you see any "L's"?
> L: [shakes head]
> T: I know there's a lot of letters, so it may be hard to find them.
> **L**: [L already has one letter "L" and finds another "L"] **I don't need this one now** [looking at the two "L's" in her hands]. **I only need one "L."**
> T: You only need one "L," yup, right here. Can you put that on the paper to see what you still need?

While Laura struggled to find letters in her name, she engaged in private speech (Piaget, 1926), which is a universal feature of childhood (Davis, Meins, & Fernyhough, 2013). Private speech is observed most frequently for ages 3 to 7 years (Berk, 1992) with these children engaging in a range of activities such as this example. Even though Laura was not directly interacting verbally with the teacher or other children, the teacher heard her say "I don't need this one now" and "I only need one 'L,'" to which the teacher responded, "You only need one 'L,' yup, right here." In this respect, Laura's utterances worked not only to regulate her cognitive performance of the activity in which she was engaged (finding letters), but also to *argue* against herself that she does not need two "L's" because there is only one "L" in her name. As this example shows, not all language functions require an interlocutor.

In addition, the DLLs age 2.5 to 3.5 years used *request*. For instance, Level 1 child Kane and used *request* in his speech:

[Ages 2.5-3.5 Level 1: Kane (K; focal), Laura (L; Level 3), and researcher (R) in the playground]
R: Is this your bicycle, bicycle?
K: [Shakes head]
[Laura is showing interest in the camcorder the researcher is using]
L: Can I see?
R: Si[5] [in Spanish].
L: [Speaks to Kane in Mandarin]
[Kane is also interested in the camcorder]
K: Can I see?
R: Yeah, you can see.

In this example, two children, Kane (focal child, Level 1) and Laura (Level 3), are in the playground. While the researcher interacts with the two children, both of the children recognized the device (camcorder) the researcher is using to video-record the children. This interaction shows their sociocultural understanding of camcorder in their lives beyond the mere existence of a camcorder as a mechanical device (e.g., what it is supposed to do, what it does when the power is turned on). In this example, Kane reproduced the interrogative sentence "Can I see?" after hearing Laura say it. This situation is an example of what Brown (1973) and Hakuta (1974) call *prefabricated language*, which is an internally pre-programmed creative process that also serves as a vehicle for language socialization (Perera, 2001), rather than a sign of behaviorism (i.e., response to external stimli) simply because Kane reproduced Laura's sentence.

Helen, a Level 5 child, used *request* while pretending to throw a party with Oliver during free play time.

[Ages 2.5-3.5 Level 5: Helen (H; Focal) and Oliver (O; level unknown) during free play]
H: I'm need to go to water. I'm need to [unintelligible]. [To O] **Can you look for this, around and nobody takes them away?**
O: Yeah
H: [leaves]

During free play time, Helen made a request to Oliver by saying "can you look for [keep an eye on] this [so that] nobody takes [these toys] away?" This sentence tells us she regarded Oliver, her interlocutor, as a trustworthy companion in the shared space. Therefore, when Helen had to leave the spot temporarily, she asked Oliver to keep an eye on the toys she had laid out so nobody else interrupts their play.

To summarize, *requests* were observed in two different development levels (Levels 1 and 5). Kane's sentence construction (i.e., Can I see?) was rather short but fully served its purpose as a language function. In comparison, Helen's (Level 5) sentence structure showed more complexity, consisting of independent and subordinate clauses using a conjunction (i.e., so

[5] The researcher was bilingual in English and Spanish, and responded to Spanish-speaking children in Spanish.

[that]). In addition, Helen's language function of *request* was more literal and explicit because her syntactic structure was more complex, thereby demonstrating more sophisticated linguistic repertoire (Gumperz, 1964).

Group Age 3.5 to 4.5 Years

DLLs 3.5 to 4.5 years old used the language function of *explain*, *heuristic*, and *recount*, which were not observed in the 2.5- to 3.5-year-old group. In the following excerpt that exemplifies heuristic language use, the teacher asked students to mix two colors (red and yellow) and see what is produced.

> [Ages 3.5-4.5 Level 5: Ursula (U; Focal), Child 1 (C1), teacher (T), and researcher (R) playing with colors]
> T: Wait, listen to me. What color you can make from red and yellow?
> C1: A rainbow!
> [other kids say] Rainbow! Blue blue!
> T: Blue? What about…we can just find out. You are going to discover what color comes out from yellow and red.
> R: Good job, Ursula.
> T: One spoon of each. Is the same. From red and yellow. Okay?
> C1: Look at my hot sauce!
> U: You're gonna touch it?
> T: Okay, work it on and tell me what color you're making. Mix them both.
> [kids start mixing the two colors with bare hands]
> C1: I think we're gonna make green.
> T: You think so?
> C1: Yeah!
> **U**: **Mine didn't make it red.**

Ursula used the language function of *heuristic* to conclude that mixing two colors "didn't make it red." First, Ursula was watching another child mix colors who said that mixing red and yellow will make it green. While mixing colors, Ursula noticed that mixing the two colors looked more like "red." Although it was not clear or stated explicitly what color will come from the mix of two colors, Ursula learned that mixing the two colors did not produce the color Child 1 had expected. The hands-on experience allowed Ursula to experience the science of color-mixing and language associated with it to come to the conclusion that mixing the two colors did not make it red.

In addition, some DLLs in the 3.5- to 4.5-years age group were observed to use *recount* to describe something related to their imaginative play. For example, while pretending to be a firefighter, Ben (Level 3) used *recount* when the researcher asked him what he was wearing.

> [Ages 3.5-4.5 Level 3: Ben (B; Focal) and researcher (R) during free play]
> **B: I, I, am, am , am, I'm [in] boot, I'm [in] boot.**

R: Yeah, you're wearing a boot. Tell me about your boots.
B: [no response]
R: Are they…where do you wear your boots?
B: I, I, am, am, am, I'm [in] boot.
R: You're wearing boots. That's right.

In this interaction, the researcher asked Ben some questions in an attempt to elicit his response. Ben responded by saying, "I, I, am, am, I'm [in] boot, I'm in boot." He repeated this several times. Ben is trying to express his personal account, or according to Halliday (1975), this is a way of expressing himself (i.e., personal).

In the same age group, Yeddie (Level 5) used *recount* to describe the special solidarity he and his playmate Oliver has established while building a bridge together using blocks:

[Ages 3.5-4.5 Level 5: Yeddie (Y; Focal), Oliver (O; level unknown), and researcher (R) playing with blocks]

O: I'm…building a…..
Y: A bridge! [completes Oliver's sentence]
R: A bridge!
O: We're building a big bridge.
R; Big bridge?
Y: anyway, we put ah…put up closer so nobody can come here. On the construction site.
R: Ohhhh! What did you put up, I'm sorry. Can you say that again?
Y: These things.
R: Oh, these things?
Y: Yup.

In the phrases "we put up closer so nobody can come here. On the construction site," Yeddie used peculiar language functions such as *we* as a sign of solidarity for collective action to make sure "nobody can come here." This use says the *we*-ness is an exclusive sign of membership. In this example, Yeddie used *recount* as a language function to describe the setting and environment in which he was situated in relation to Oliver.

As described above, both Ben (Level 3) and Yeddie (Level 5) used *recount*. In comparison to Ben's language use, Yeddi's use of *recount* was more detailed with specific information of why Yeddi put up the bridge—to prevent anybody from coming near their construction site. Therefore, his use of *recount* is longer in length, richer in vocabulary (e.g., construction, put up), and involved more complex sentence structure involving the conjunction "so."

Group Age 4.5 to 5.5 Years

Children in the oldest group, 4.5 to 5.5 years, used *argue* and *explain*. For instance, Alex (Level 3) explained to the teacher after quarreling with João, who was playing with toy trains:

> [Ages 4.5-5.5 Level 3: Alex (A: Focal) and teacher (T) during free play]
> (Alex and teacher are facing each other. Alex is trying to explain something to teacher)
> A: He did. I hear it three time and I say stop.
> T: he's lining them [toy trains] up.
> A: **Yeah, but I say "Stop!"**
> T: I think it's all right, honey.

Alex is complaining to the teacher using "but" to *explain* what João did to him ("I told him to stop…but…"). As seen in this example, Alex used the conjunction "but" to illustrate the complexity and depth of his complaint. He, after all, received sympathy from a teacher, who said, "That's all right, honey." The teacher's response acknowledged the purpose of Alex's explanation. What Alex had intended to receive were the words of sympathy from his teacher.

The DLLs in this age group also used *argue* in multiple occasions. For example, Seth (Level 1) argued against Boy 1, who took his truck during play time:

> [Ages 4.5-5.5 Level 1: Seth (S; Focal) and another boy (Boy 1) during play time]
> [Boy 1 takes Seth's truck by force]
> **S**: Hey! I [inaudible]. **You already have one.**
> Boy 1: I don't want to!

When Boy 1 took away the truck he was playing with, Seth said, "Hey! I [inaudible]. You already have one." In reply, Boy 1 insisted he keep the truck he took from Sebastian by saying, "I don't want to!"

In another example, Bonnie (Level 5) used *argue* to make a point against the researcher when the researcher asks Bonnie a question more than once:

> [Ages 4.5-5.5 Level 5: Bonnie (B; focal) and researcher (R) playing with sand box]
>
> R: What is this hill you're making? What is this?
> **B: A sand castle, I tell [told] you!**
> R: Oh, it's a sand castle. I didn't hear you before…because of the sound of the…cups.

In this example, Bonnie shows frustration over the researcher's repetitive question by responding, "I tell [told] you!" with frustration, to which the researcher responded apologetically. Bonnie used the language function of *argue* pragmatically to challenge the researcher's repetitive question that frustrated her. While Seth, a Level 1 DLL, used *argue* for more practical reasons of getting his toy truck back, Bonnie, a Level 5 DLL, used the same

language function for pragmatic purposes as well to express her frustration and annoyance. Moreover, Bonnie (Level 5) used a technical noun phrase, "sand castle," to describe what she was making, whereas Seth (Level 1) did not seem to possess the ability to produce such difficult phrases.

According to syntactic analysis across the three different age groups, the mean length of utterance (MLU) produced by Level 1 and Level 3 DLLs was two to three words, regardless of age. For example, in Level 1 of 2.5- to 3.5-year-olds, one DLL said, "Can I see?," a short question of three words. The DLLs in our study had shorter MLU than monolingual children from previous studies (e.g., Brown, 1973; Miller & Chapman, 1981), who produced an MLU of four. For example, Brown (1973) studied syntactic development of three monolingual children (Eve, Adam, and Sarah) by measuring their MLU. Adam and Sarah, both 3.5 years old, showed similar developmental patterns—Adam's MLU was four words and Sarah's was 3.75. Meanwhile, some Level 5 DLLs in the current study produced utterances as long as eight words (e.g., "Henry is watching us what we are doing"). In addition, they spoke complex sentence, involving comparatives: "This is the larger bridge [of the two]" and "We put…put closer so nobody comes here." Considering that DLLs are developing multiple languages simultaneously, their language development is sometimes on par with or greater than that of monolingual children (e.g., Brown, 1973; Miller & Chapman, 1981).

Conclusion

This study is meant to serve as a precursor to future studies that investigate DLLs' functional uses of language. It offers an alternative approach to understanding DLLs' language use beyond mere structural analyses of language data. Language learning is a constant process for young language learners who are exposed to different languages at different times and places. It is in such social contexts where the construction of the system of meanings takes place, and "there is no way it can take place except in these contexts" (Halliday, 1975, p. 139). It is worth stressing that, as in the case of monolingual children, DLLs are not passive recipients of language. They learn language through construction of meaning by actively participating in language communities (Halliday, 1975).

The DLLs observed in this study used different key language uses when communicating in English. While the younger DLLs' key language use was limited to simple *argue* or *request*, older DLLs demonstrated a wider range of language functions, including *argue*, *explain*, and *heuristic*. Within each age group, DLLs with higher language development levels used more complex syntactic features and richer vocabulary.

For instance, the DLLs from the highest age group (4.5 to 5.5 years) with the highest language level (Level 5) showed complex syntactic features (e.g., independent and subordinate clauses) compared to other DLLs who demonstrated simple syntactic features. This finding reflects the research on second language acquisition, which has shown that children's acquisition of certain linguistic features is more or less sequential (e.g., natural order hypothesis by Krashen,

1985), as in the case of first language acquisition. This sequencing occurs because language development is tied to their cognitive development (Lightbown & Spada, 1999, p. 76).

Due to the rather small sample size analyzed in this study, the findings are not generalizable to all DLLs. For example, of the 14 DLLs, only one child was observed to use the heuristic key language use. Although in the current study, heuristic language use was used only once, such findings cannot and should not be generalized to all DLLs. Furthermore, the current study examined DLLs' language use cross-sectionally. Without longitudinal data, it is difficult to see a developmental pattern of DLLs' language use. Therefore, future studies may benefit from examining DLLs' key language use longitudinally using a larger sample size.

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