Published in final edited form as:

Child Dev Perspect. 2011 March 1; 5(1): 4–9. doi:10.1111/j.1750-8606.2010.00140.x.

Language and Literacy Development of Dual Language Learners Growing Up in the United States: A Call for Research

Carol Scheffner Hammer¹, Gisela Jia², and Yuuko Uchikoshi³

¹Temple University

²City University of New York

³University of California, Davis

Abstract

Statistics show that many dual language learners (DLLs) growing up in the United States are at risk for poor educational outcomes. As a result, national attention has focused on the promotion of DLLs' academic abilities, beginning in the preschool years. Despite this interest, our understanding of DLLs' language and literacy development is limited. The purpose of this article is to discuss the current state of knowledge about the language and literacy development of DLLs during early childhood, and to present a research agenda designed to enhance the field's understanding of DLLs' development, which, in turn, can help improve the educational outcomes of children who are learning two languages.

Keywords

bilingual; preschoolers; English language learners; dual language learners; language development and emergent literacy

The number of dual language learners (DLLs) entering the U.S. educational system has increased substantially in recent years, having surpassed 3 million children (National Center for Education Statistics [NCES], 2004). Unfortunately, many DLLs are at risk for poor academic outcomes. For example, statistics have consistently shown that Latino children, the largest population of DLLs in the United States, begin kindergarten with school readiness abilities behind those of their peers and remain behind throughout their academic careers, performing below non-Hispanic Whites in reading in Grades 4, 8, and 12 (NCES, 2006). Additionally, although Asian American children, the second largest group of DLLs, have been stereotyped as model students, many struggle in school, which has led to an increasingly higher dropout rate in this group of children (Lee, 2005; Lew, 2006; Rumbaut & Cornelius, 1995).

Given the increasing numbers of DLLs, national attention has focused on promoting their academic outcomes. At the same time, the importance of children's development during the pre-school years and its relationship to later academic abilities has been recognized, which is evidenced by the continued support for Head Start and the call for universal preschool programs throughout the country.

Unfortunately, our understanding of the language and literacy development of DLLs growing up in the United States is limited. Most investigations on children's early development exclude DLLs from their samples. Studies that include DLLs may only do so once children are proficient in English and may group DLLs with their monolingual peers. They typically fail to consider children's abilities in their home language or the fact that the children are bilingual. Such strategies result in an incomplete picture of DLLs' development.

Therefore, the aims of this article are twofold. The first is to discuss what is currently known about the language and literacy development of DLLs from birth through preschool and to identify factors that affect children's development. An underlying premise of this discussion is that oral language serves as the foundation for later literacy skills (see also Castro, Pérez, Dickinson, & Frede, this issue), and therefore, an understanding of DLLs' language development is needed in order to understand their reading development (Scarborough, 2001; Snow, Burns, & Griffin, 1998). The second aim is to present a research agenda that calls for an expansion of the current knowledge base on the early language and literacy abilities of DLLs. Throughout the discussion, we place emphasis on research that investigates the developmental paths of Latino and Asian DLLs growing up in the United States. These two groups constitute the largest number of DLLs in the United States and have received the most attention in the literature. They differ from the majority of DLLs in Canada and Europe, who are from the dominant cultures and who speak majority languages. Latino and Asian children in the United States are minorities who are learning both their home language, a minority language, and English, the majority language of the country.

LANGUAGE AND LITERACY DEVELOPMENT OF LATINO DLLS

Currently, 20% (10 million) of public school children are Latino, with 84% of children born in the United States (Fry & Gonzalez, 2008). Of those, 70% speak Spanish at home and approximately 20% speak English with difficulty (Fry & Gonzalez, 2008). Speakers of Mexican (58.5%), Puerto Rican (9.6%), and Cuban (2.2%) dialects of Spanish constitute the largest groups of children attending U.S. schools (NCES, 2006; U.S. Census Bureau, 2001). Despite the significant numbers of children in the educational system, relatively few studies have examined Latino DLLs' development.

Early Language Development

Research on the early language development of Latino children has focused on vocabulary development (Patterson, 1998, 2000). Studies have shown that children under age 3 who learn Spanish and English simultaneously demonstrate vocabulary development comparable to monolingual children when children's vocabularies in their two languages are combined (Conboy & Thal, 2006; Marchman & Martinez-Sussmann, 2002; Pearson, Fernandez, & Oller, 1993). There are individual differences in the sizes of children's Spanish and English vocabularies, resulting from differences in the amount of input children receive in the two languages (Marchman & Martinez-Sussmann, 2002; Patterson, 2002; Pearson, Fernandez, Lewedag, & Oller, 1997), the amount of time children are read to (Patterson, 2000), and parental educational levels (Hurtado, Marchman, & Fernald, 2007).

Development During the Preschool Years

Studies on Latino dual language preschoolers have targeted children from low-income families who attend preschool programs in which English is the primary language of instruction. Research has examined children's language and literacy abilities, differences in children's outcomes based on the age of exposure to the two languages, the relationships among early language and later literacy outcomes, and environmental factors that affect development.

Language and Emergent Literacy Development—Investigations of Latino DLLs' language development have examined children's abilities in each language separately. These studies have shown that Latino DLLs begin preschool scoring 1 to 2 *SD* below monolingual norms in both Spanish and English in their receptive and expressive vocabulary and auditory comprehension. Although they make gains during preschool, DLLs continue to be behind monolinguals at the end of the year (Hammer, Lawrence, & Miccio, 2008; Pérez, Tabors, & López, 2007; Tabors, Pérez, & López, 2003; U.S. Department of Health and Human Services, 2001, 2003). These are not unexpected results, given that DLLs are learning two languages and have different linguistic experiences than monolinguals.

In terms of emergent literacy, Latino DLLs also begin and end preschool with phonological awareness and letter identification abilities that are lower than monolinguals, despite the fact that DLLs make gains in these areas during the year (Hammer & Miccio, 2006; Hammer, Miccio, & Wagstaff, 2003; Pérez et al., 2007; Tabors et al., 2003; U.S. Department of Health and Human Services, 2000). Decreases in children's overall literacy abilities have been documented in children attending English-immersion preschools that did not emphasize emergent literacy. However, when they received explicit literacy instruction in kindergarten, this same group of children demonstrated significant gains in their phonological awareness and letter-sound knowledge in both Spanish and English, and caught up to monolingual English norms in overall emergent literacy (Hammer & Miccio, 2006).

Differences Due to the Age of Exposure to English—Differences occur in Latino DLLs' language development depending on whether children were simultaneous or sequential learners of English and Spanish (Hammer et al., 2008). Research that followed DLLs who attended English Immersion Head Starts for 2 years demonstrated that simultaneous learners began Head Start with higher English receptive vocabulary and auditory comprehension. Sequential learners started with higher scores in Spanish. In English, simultaneous learners' abilities grew at a constant rate and were within the typical range for monolinguals by the end of preschool. Sequential learners' English vocabulary growth accelerated over time, whereas their auditory comprehension grew at a constant rate. Their development in both areas, however, did not approach monolingual expectations by the end of Head Start. Sequential learners may require more time to catch up to monolingual English speakers. In terms of Spanish abilities, sequential learners experienced linear growth in receptive vocabulary, which allowed children to catch up to the typical range for monolinguals. Simultaneous learners experienced no change in their Spanish receptive vocabulary, which was below monolingual expectations throughout preschool. Both groups' Spanish auditory comprehension initially increased and then decreased over the 2-year period.

With regard to emergent literacy, simultaneous and sequential learners did not differ in their Spanish and English phonological awareness, letter identification, and letter-sound knowledge during Head Start and kindergarten. Although both groups had low scores during Head Start, both groups made significant gains in the fall of their kindergarten year in these areas (Hammer & Miccio, 2006).

Relationships Among Early Oral Language and Later Literacy Outcomes—

Although research has shown predictive relationships between oral language and literacy in monolingual populations, relatively little research has investigated the relationships between Latino DLL preschoolers' language and literacy abilities in their two languages. Relationships between children's phonological awareness in Spanish and English have been found during the preschool years and beyond (Dickinson, McCabe, Clark-Chiarelli, & Wolf, 2004). Additionally, research investigating the relationships of children's Spanish and English oral language to children's Spanish and English written language abilities

demonstrated within- and between-language relationships. Specifically, growth in children's Spanish receptive language (i.e., receptive vocabulary and auditory comprehension) during 2 years in Head Start positively predicted children's English emergent literacy in kindergarten, English and Spanish letter-word identification abilities in kindergarten and first grade, and English and Spanish reading comprehension in first grade (Davison, Hammer, Lawrence, & Miccio, 2008; Hammer, Lawrence, & Miccio, 2007). Similarly, growth in children's English receptive language during Head Start positively predicted the same outcomes as children's Spanish language growth. These findings support Cummins (1979) interlinguistic dependence hypothesis, which asserts that children use their knowledge of one language to assist their development of a second. Additionally, the findings demonstrate the importance of studying language growth over time.

Environmental Factors Affecting Children's Language and Literacy

Development—Although extensive efforts have attempted to identify home and school factors that affect monolingual preschoolers' language development, we have a limited understanding of factors that promote or hinder Latino preschoolers' development. Research has demonstrated that parents' literacy involvement predicted DLLs' vocabulary abilities, although this relationship was enhanced when children display interest in literacy (Farver, Xu, Eppe, & Lonigan, 2006). Additionally, library use was positively associated with the English vocabulary outcomes of DLLs attending Even Start programs, and contact with extended family members positively affected children's Spanish vocabulary (Gonzalez & Uhing, 2008). Researchers have not found relationships between the home literacy environment, defined as the frequency of book reading and maternal teaching of emergent literacy skills, and DLLs' emergent literacy abilities during Head Start (Hammer et al., 2003). Clearly, we need more research in order to understand characteristics of the home literacy environment that promote DLLs' development.

Information is emerging on the impact of home language usage on young DLLs' outcomes. An investigation that focused on mothers' reported language usage to their children during 2 years in English Immersion Head Start programs and kindergarten found that children's English vocabulary and emergent literacy development was unaffected by the language in which mothers communicated with their children. Neither increased usage of English nor continued usage of Spanish affected children's rate of growth in English. Children's Spanish vocabulary development, however, was influenced by the language mothers used when interacting with their children. Maternal usage of Spanish promoted children's Spanish vocabulary development, whereas maternal usage of English slowed children's Spanish vocabulary growth. It appears that children had sufficient exposure to English at school to promote their development of that language. Because children were not exposed to Spanish in school, maternal usage of Spanish was necessary to support children's development of Spanish (Hammer, Davison, Lawrence, & Miccio, 2009).

Research on educational factors has focused on the effect of the preschool setting on children's outcomes. A comparison of the language development of Spanish-speaking children attending bilingual preschools (ranging from 30% Spanish/70% English to 70% Spanish/30% English) and Spanish-speaking children remaining at home during the preschool years revealed that children in both groups made gains in their Spanish language development. Preschoolers in bilingual classrooms, however, made greater gains in English than did children who did not attend preschool (Rodríguez, Díaz, Duran, & Espinosa, 1995). When comparing outcomes of children who went to pre-school, children who attended dual-language programs achieved comparable gains in English vocabulary and literacy development, and greater gains in Spanish vocabulary, as compared to children in English immersion programs (Barnett, Yarosz, Thomas, Jung, & Blanco, 2007). Thus, language of instruction has an impact on children's language development.

LANGUAGE AND LITERACY DEVELOPMENT OF ASIAN DLLS

Asian children make up the second largest group of DLLs in the United States, with 65% of children speaking a language other than English at home (NCES, 2006). Unlike the majority of the Latino population who share a common language, Asian children speak a number of languages, with Chinese, Tagalog, Vietnamese, and Korean being most common. Overall, 17% of Asian children speak English with difficulty. The percentage rises to 30%–40% for children who speak Southeast Asian languages.

Research on Asian DLLs is complex because of the number of Asian languages, the linguistic features of Asian languages, and the differences among Asian cultures that scholars must take into account. Despite this complexity, little research has examined the development of Asian DLLs. Studies on this population, along with work on Latino DLLs, are highly valuable. Such work will identify aspects of DLLs' development that are unique to particular language systems as well as aspects that are common across DLL populations.

Early Language Development

Similar to research on young Spanish-speaking DLLs, infants and toddlers who are acquiring Mandarin, Cantonese, or Korean exhibit vocabulary growth rates that are similar to their monolingual peers when we combine knowledge in both languages. Similarly, higher parental educational levels predict larger vocabulary sizes. In addition, Asian DLLs' pattern of vocabulary development (e.g., gender differences, the proportions of noun and verb) resembles that of monolingual children (Jia, Chen, & Kim, 2008; Marchman, Xuan, & Yoshida, 2005).

Research on language usage of Asian families is limited. One study investigated the language usage of Mandarin- and Cantonese-speaking families living in New York City (Jia et al., 2008). The findings revealed that caregivers spoke to their infants in their home language predominantly. For some caregivers, this was necessary because of their limited English abilities. For others, particularly for highly educated parents who spoke English fluently, use of their home language was a deliberate choice. These parents wanted their children to maintain their home language and culture. Children's exposure to English was minimal and came mainly from older siblings, television, and day care staff as well as parental reading of books. This pattern of dominant home language use led to the predominance of home language skills by the time the children were 3 years of age.

Development During the Preschool Years

Relatively recently, researchers have studied Asian DLLs' home language and English language development. Two studies focused on preschoolers learning Hmong and English. Results revealed that children's combined vocabulary in both languages was greater than in either language individually (Kan & Kohnert, 2005). Additionally, older children had a larger English vocabulary than did younger children; however, younger and older children did not differ in the size of their Hmong vocabulary. The researchers concluded that children's abilities in Hmong were stabilizing as their abilities in English developed, indicating a shift in dominance from the children's home language to English. However, the preschoolers were better at fast mapping new lexical items to concepts in their home language than in English (Kan & Kohnert, 2008). This indicated that even though children's lexical ability in English was surpassing their abilities in Hmong, the children were still well equipped to learn new words in their home language because of their previously predominant exposure to that language.

Other studies have focused solely on Asian DLLs' English language development (Genishi, Stires, & Yung-Chan, 2001; Huang & Hatch, 1978; Perera, 2001; Yoshida, 1978). One

investigation demonstrated that Chinese-speaking preschoolers initially developed a core English vocabulary that they used to participate in classroom routines and activities (such as identifying the weather), and then expanded their vocabulary and language usage to interact more spontaneously with the teacher and children in the classroom (Genishi et al., 2001). Another investigation showed that Japanese-speaking preschoolers initially relied on formulaic speech (i.e., memorized chunks of speech) to communicate. Over time, children inserted new words into their formulaic utterances to construct novel utterances. Gradually, spontaneously produced multiword utterances replaced children's formulaic communication (Perera, 2001).

AN URGENT NEED FOR RESEARCH

Given the increasing numbers of DLLs who are entering the U.S. educational system and the limited number of investigations that have examined the development of DLLs living in the United States, there is a great need for research in this area. In this section, we propose an agenda that addresses four key areas of urgently needed research.

First, investigations are needed that focus on Spanish-speaking children and children who speak various Asian languages (as well as other language groups). Such information will lead to an understanding of distinct patterns of language development. Additionally, studies are called for that compare the development of speakers of different languages. This will allow for the identification of features that are common across DLL populations and features that are unique to each language group. Such research will not only inform the field about bilingual development, it will provide valuable information that can be used to develop interventions that support DLLs' language and literacy development.

Second, longitudinal investigations are needed that document the development of children's *two languages* and that examine the relationships between the children's languages over time. Without such studies, an incomplete understanding of DLLs' development will persist. Such studies must carefully document children's characteristics, such as age, languages spoken, the ages of exposure to the two languages, amount of exposure to the two languages, and changes in exposure over time. Additionally, researchers should pay attention to the various components of language (e.g., phonology, vocabulary, morpho-syntax, oral comprehension) and literacy (e.g., phonemic awareness, letter knowledge, decoding, reading comprehension), the relationships between and within languages, and changes in the relationships that may occur over time.

Third, research is needed that identifies environmental factors that affect DLLs' language and literacy development. Specifically, studies should compare the language and literacy development of children of varying SES levels. Currently, researchers have placed emphasis on Latino children from low-income families and Asian DLLs who are from higher SES groups, most likely due to ease of access to the populations. Although these studies provide valuable information, investigations that compare the development of children of differing SES will assist the field in understanding the impact of poverty and low parental education on bilingual language development.

Related to this, studies are needed that document the characteristics of the children's families (e.g., generational status, languages used in the home, educational status, occupation status, social-emotional well-being, home literacy environment), communities, and schools (e.g., languages spoken, economic resources, racial/ethnic makeup). It is important that such studies examine the relationships among the children's environment and language and literacy outcomes. This will allow for the identification of risk and protective factors. Such information will help researchers and practitioners develop programs that capitalize on protective factors to maximize children's outcomes.

Fourth, the field greatly needs investigations that explore the language and literacy development of children in various educational settings. Not only is it important to identify which models of bilingual education (e.g., English immersion, dual language) and school readiness curricula are effective in promoting DLLs' language and literacy outcomes in their two languages, it is essential that research examine which programs work best for which children. It is highly unlikely that one approach will be equally effective for all DLLs. Additionally, investigations that identify which specific aspects of instruction affect particular areas of children's language and literacy development will provide valuable information to the field.

With knowledge gained through an expanded knowledge base, much can be done to improve researchers' and practitioners' understanding of DLLs' language and literacy development. Such information, in turn, can be used to inform interventions that promote children's outcomes. This, in turn, will maximize children's overall well-being as they progress through life.

References

- Barnett WS, Yarosz D, Thomas J, Jung K, Blanco D. Two-way and monolingual English immersion in preschool education: An experimental comparison. *Early Childhood Research Quarterly*. 2007; 22:277–293.
- Castro DC, Pérez MM, Dickinson DK, Frede E. Promoting language and literacy in young dual language learners: Research, practice, and policy. *Child Development Perspectives*. 2010; 4:195–201.
- Conboy BT, Thal DJ. Ties between the lexicon and grammar: Cross-sectional and longitudinal studies of bilingual toddlers. *Child Development*. 2006; 77:712–735. [PubMed: 16686797]
- Cummins J. Linguistic interdependence and the educational development of bilingual children. *Review of Educational Research*. 1979; 49:222–251.
- Davison, MD.; Hammer, CS.; Lawrence, FR.; Miccio, AW. Unpublished manuscript. 2008. Associations of language and reading outcomes of bilingual preschool children.
- Dickinson DK, McCabe A, Clark-Chiarelli N, Wolf A. Cross-language transfer of phonological awareness in low-income Spanish and English bilingual preschool children. *Applied Psycholinguistics*. 2004; 25:323–347.
- Farver J, Xu Y, Eppe S, Lonigan C. Home environments and young Latino children's school readiness. *Early Childhood Research Quarterly*. 2006; 21:196–212.
- Fry, R.; Gonzalez, F. One-in-five and growing fast: A profile of Hispanic public school students. Washington, DC: Pew Hispanic Center; 2008.
- Genishi C, Stires SE, Yung-Chan D. Writing in an integrated curriculum: Prekindergarten English language learners as symbol makers. *The Elementary School Journal*. 2001; 101:399–411.
- Gonzalez J, Uhing B. Home literacy environments and young Hispanic children's English and Spanish oral language. *Journal of Early Intervention*. 2008; 30:116–139.
- Hammer CS, Davison MD, Lawrence FR, Miccio AW. The effect of home language on bilingual children's vocabulary and emergent literacy development during Head Start and kindergarten. *Scientific Studies of Reading*. 2009; 13:99–121.
- Hammer CS, Lawrence FR, Miccio AW. Bilingual children's language abilities and reading outcomes in Head Start and kindergarten. *Language, Speech and Hearing Services in Schools*. 2007; 38:237–248.
- Hammer CS, Lawrence FR, Miccio AW. Exposure to English before and after entry into Head Start: Bilingual children's receptive language growth in Spanish and English. *International Journal of Bilingual Education and Bilingualism*. 2008; 11:30–56.
- Hammer CS, Miccio AW. Early language and reading development of bilingual preschoolers from low-income families. *Topics in Language Disorders*. 2006; 26:302–317.

- Hammer CS, Miccio AW, Wagstaff D. Home literacy experiences and their relationship to bilingual preschoolers' developing English literacy abilities. *Language Speech and Hearing Services in Schools*. 2003; 34:20–30.
- Huang, J.; Hatch, E. A Chinese child's acquisition of English. In: Hatch, EM., editor. *Second language acquisition: A book of readings*. Rowley, MA: Newbury House; 1978. p. 118–131.
- Hurtado N, Marchman VA, Fernald A. Spoken word recognition by Latino children learning Spanish as their first language. *Journal of Child Language*. 2007; 34:227–249. [PubMed: 17542157]
- Jia, G.; Chen, J.; Kim, H. Unpublished manuscript. 2008. Bilingual vocabulary development among infants and toddlers with Chinese or Korean as home languages.
- Kan PF, Kohnert K. Preschoolers learning Hmong and English: Lexical-semantic skills in L1 and L2. *Journal of Speech, Language, and Hearing Research*. 2005; 48:1–12.
- Kan PF, Kohnert K. Fast mapping by bilingual preschool children. *Journal of Child Language*. 2008; 35:495–514. [PubMed: 18588712]
- Lee, SJ. *Up against Whiteness: Races school, and immigrant youth*. New York: Teachers College Columbia University; 2005.
- Lew, J. *Asian Americans in class: Charting the achievement gap among Korean American youth*. New York: Teachers College Columbia University; 2006.
- Marchman VA, Martinez-Sussmann C. Concurrent validity of caregiver/parent report measures of language for children who are learning both English and Spanish. *Journal of Speech, Language, and Hearing Research*. 2002; 45:983–997.
- Marchman, VA.; Xuan, L.; Yoshida, M. Vocabulary composition mirrors monolingual patterns in children learning two languages: A study of English- and Mandarin-learning toddlers in the US. Poster presented at the Society for Research in Child Development; Atlanta, GA. 2005 Apr.
- National Center for Education Statistics. *English language learner students in US public schools: 1994 and 2000 (NCES 2004-035)*. Washington, DC: U.S. Department of Education; 2004.
- National Center for Education Statistics. *The condition of education*. Washington, DC: U.S. Department of Education; 2006.
- Páez MM, Tabors PO, López LM. Dual language and literacy development of Spanish-speaking preschool children. *Journal of Applied Developmental Psychology*. 2007; 28:85–102. [PubMed: 20396646]
- Patterson JL. Expressive vocabulary development and word combinations of Spanish-English bilingual toddlers. *American Journal of Speech-Language Pathology*. 1998; 7:46–56.
- Patterson JL. Observed and reported expressive vocabulary and word combinations in bilingual toddlers. *Journal of Speech, Language, and Hearing Research*. 2000; 43:212–228.
- Patterson J. Relationships of expressive vocabulary to frequency of reading and television experience among bilingual toddlers. *Applied Psycholinguistics*. 2002; 23:493–508.
- Pearson BZ, Fernandez S, Lewedag V, Oller DK. Input factors in lexical learning of bilingual infants (ages 10 to 30 months). *Applied Psycholinguistics*. 1997; 18:41–58.
- Pearson BZ, Fernandez S, Oller DK. Lexical development in bilingual infants and toddlers: Comparison to monolingual norms. *Language Learning*. 1993; 43:93–120.
- Perera NS. The role of prefabricated language in young children's second language acquisition. *Bilingual Research Journal*. 2001; 25:251–280.
- Rodríguez J, Díaz R, Duran D, Espinosa L. The impact of bilingual preschool education on the language development of Spanish-speaking children. *Early Childhood Research Quarterly*. 1995; 10:475–490.
- Rumbaut, RG.; Cornelius, WA., editors. *California's immigrant children: Theory, research, and implications for educational policy*. San Diego, CA: UCSD Center for U.S.-Mexican Studies; 1995.
- Scarborough, H. Connecting early language and literacy to later reading (dis)abilities: Evidence, theory and practice. In: Neuman, S.; Dickinson, D., editors. *Handbook of family literacy*. New York: Guilford; 2001. p. 97–110.
- Snow, CE.; Burns, MS.; Griffin, P., editors. *Preventing reading difficulties in young children*. Washington, DC: National Academy Press; 1998.

- Tabors PO, Pérez MM, López LM. Dual language abilities of Spanish-English bilingual four-year-olds: Initial findings from the early childhood study of language and literacy development of Spanish-speaking children. *NABE Journal of Research and Practice*. 2003; 1:70–91.
- U.S. Census Bureau. *The Hispanic population*. Washington, DC: Author; 2001.
- U.S. Department of Health and Human Services. *Head Start FACES: Longitudinal findings on program performance*. 2001. Retrieved February 17, 2008, from http://www.acf.hhs.gov/programs/opre/hs/faces/reports/perform_3rd_rpt/meas_99_title.html
- U.S. Department of Health and Human Services. *Head Start FACES 2000: A whole-child perspective on program performance*. 2003. Retrieved February 17, 2008, from http://www.acf.hhs.gov/programs/opre/hs/faces/reports/faces00_4thprogress/faces00_title.html
- Yoshida, M. The acquisition of English vocabulary by a Japanese-speaking child. In: Hatch, EM., editor. *Second language acquisition: A book of readings*. Rowley, MA: Newbury House; 1978. p. 91-100.