Language Acquisition for the Bilingual Child
Raising Bilingual Children in the United States

Presenters

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Learner outcomes

- Participants will understand the concerns of parents and professionals regarding second language acquisition.
- Participants will understand the different approaches used to facilitate bilingualism.
- Participants will explore whether and how bilingualism is possible for children with hearing loss.
Why is this an important topic?

- Influx of immigrants presenting new challenges
- Immigrant families may feel torn between the need to learn English and their desire to retain their native culture and language.
- Until recently, immigrant families were told to speak only English in the home if they wanted their children to be successful in school. Research shows that children can learn more than one language without negatively impacting their education. In fact, current literature stresses the importance of providing services in the home language when working with children with special needs (Hardin et al., 2009), as well as children without disabilities.

For some, “bilingualism, is the native-like control of two languages, when the child is exposed to both languages from birth or at least before the end of the critical period for language learning” (Hamers & Genesee, 1992).

For others, it is simply “knowing” two languages (Valdez & Figueora, 1994 as cited in Gottardo & Grant, 2012).

Why does the US remain a monolingual society?

- Negative attitudes toward diversity
- Inability of many programs and providers to deliver services in the native language of the immigrant families due to financial constraints or lack of bilingual personnel
- High status of English in the USA
- The political climate toward immigrants impacting a family’s decision to hold onto the mother tongue or to select English as the only language for their child
- Lack of opportunities for the American monolingual parent to provide foreign language exposure for their children
Bilingualism Myths

1) Bilingualism diminishes the ability to learn English
2) Bilingualism contributes to language delays
   (King & Fogle, 2006; Lowry, 2011)
3) Bilingualism leads to language confusion
   (King & Fogle, 2006; Lowry, 2011)
4) Children are wired to be monolingual
5) Children with language or learning impairments should not learn more than one language.

Recent research has shown that children with specific language impairment (SLI) [6], Down syndrome [7], and Autism Spectrum Disorder (ASD) [8] are able to learn more than one language simultaneously without experiencing additional delays or challenges compared to monolingual peers with similar impairments. Additional research is needed to understand the process of sequential bilingual development in children with language and learning impairments. (Virginia Li, Danielle Dietz, CCC-SLP and Ashley Springer, CCC-SLP). [9]

Dispelling Bilingualism Myths

1) Diminished Ability to Learn English

There are still those who think that learning a second language interferes with mastering the primary language and can lead to language impairment especially for children with cochlear implants. Nevertheless, the fact remains that current research suggests that children who learn a second language are more creative and better at solving complex problems than those who do not.

(Cal Center for Applied Linguistics, n.d)

Bilingualism Myths

2) Bilingualism and Language Delay

- “No empirical evidence links bilingualism to language delay of any sort.” (King and Fogle, 2006)
- It is not uncommon for preschool bilingual children to know fewer words in each language than monolingual children, when each language is examined separately. (Curtiss, 2012; Mireles, 1995; French, French, & Mireles, 1995; Mireles & French, 1982; cited in Hoff & McKay, 2005).
- If we count the total number of words a child has in both languages, bilingual children have vocabularies that are the same size or larger than those of monolingual children. (Brown, French, & Mireles, 1995; cited in Hoff & McKay, 2005).
- Bilingual children’s smaller vocabulary in each language is related to the learning environment. “Many bilingual children do not have total equivalent vocabularies in both languages because they often learn each language from different people and in different settings.” (Curtiss, 2012)
- The research is clear, “language development can be typical or atypical regardless of the number of languages in a child’s repertoire.” (Curtiss, 2012; Mireles, 1995; French, French, & Mireles, 1995).
# Bilingualism Myths

## 3) Bilingualism & Language Confusion

- The fear that Bilingualism leads to language confusion comes from "code switching" or "borrowing":
  - Code Switching: the alternate use of two or more languages, within the same discourse.
  - Borrowing: "the incorporation of lexical elements from one language in the lexicon of another language" (Muysken, 1995 as cited in Dulm, 2007).

- Research on child bilingual code-mixing indicates that it is not a sign of confusion (Genesee, 2003 as cited in Genesee 2012).

- Children who code switch are not confused "because they are able to use their two languages appropriately with different people" (Genesee, 2012).

## 4) Children are wired to be monolingual

- There is no evidence that human beings are programmed to be monolingual. "Recent brain scanning studies of adult bilingual brains have demonstrated that the neural pathways for bilingual's two languages are the same (and similar to monolinguals) but only if they had early bilingual language exposure".

  (Klein, Milner, Zatorre, Evans & Meyer, 1995 as cited by Petitto & Kovelman, 2003)
A Real Parental Fear - Children Will Lose Their First Language

- Most children eventually become English dominant or even monolingual in English” (Fillmore, 2000 as cited in King & Fogle, 2006) while in elementary school!!!!
- The Christian Science Monitor (2011), reported that the United States has been called “the graveyard of languages”.
- What can a parent do?
  1. Formulate and stick with a “Language Plan”
  2. Insist that the child respond in the same language
  3. Provide opportunities for meaningful use of the first language with other individuals in extended family, community events, after school activities, music, literature, etc.

Assessments and the Bilingual Child

- Assessing the Bilingual Child
  - It is important to test bilingual children in both their languages (Pearson et. al, 1993; Goldstein, 2006; Bedore & Peña, 2008; Kohnert, 2010), because the bilingual child uses two language systems that need to be assessed to appropriately identify if the child truly has a disorder, or the language difficulties are due to the normal process of second language learning (Goldstein)
  - Unfortunately “Bilinguals often are assessed in only one language, providing an inaccurate assessment of the child’s actual level of linguistic and cognitive development. A child assessed in only one language, typically that of the country in which he or she is being tested, may be placed erroneously at a lower level of cognitive development than his or her true level. This placement can have adverse academic consequences, such as inappropriate lower-grade placement, being held back a year, enrollment in inappropriate remedial programs, and other placement decisions.” (Viorica Marian, Yasmeen Faroqui-Shah, Margarita Kaushanskaya, Henrike K. Blumenfeld & Li Sheng)

Administer assessment tools in both languages

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Product Measures: Measure the performance of the child in a specific language. There are two types of product measures: language samples (best) and standardized tests (when using this there are several considerations to keep in mind such as are the tests translated or not etc).

Process Measures: These tools attempt to reduce biases and limitations typical of the product-based measures. Examples of process measures are language learning measures, criterion-based measures (best), dynamic assessment and portfolio assessment.

(Alexandra Guerra-Sundberg, Winter 2008)

Bilingual Vocabulary Assessment Measures

Researches agree about the importance of using a bilingual vocabulary measure. However, there is a debate regarding which is a more effective bilingual vocabulary measure, the total vocabulary measure or the conceptual vocabulary measure.

1) Conceptual Vocabulary Measure: Provides the total number of labeled concepts in two languages without counting duplicate words for a particular concept.

2) Total Vocabulary Measure: The sum of the words a child knows across two languages.

Research Supporting the Total Vocabulary Measure


Results:

The total vocabulary measure resulted in mean vocabulary scores and average rate of growth similar to monolingual growth, whereas conceptual vocabulary score were significantly smaller and grew at a slower rate than total vocabulary scores. Total vocabulary identified the same proportion of bilingual children below the 25th percentile on monolingual norms as the CDI did for monolingual children.

Conclusion: These results support the use of total vocabulary as a means of assessing early language development in young bilingual Spanish–English speaking children.
Arguments Against the Total Vocabulary Measure

- Pearson (1995) suggested that using a total vocabulary measure may result in overestimation of the bilingual child’s lexical knowledge.
- Marchman & Martínez-Sussmann, (2002) argues that the Total vocabulary measure “might overestimate a child’s vocabulary knowledge by giving credit twice when a lexical concept is known across two languages.”

This may result in delayed needed services.

Research Supporting the Conceptual Vocabulary Measure/Count

- Bialystok’s (2001) and Allman (2005) argue that bilinguals have a greater Total Vocabulary than monolinguals, but at the same time they are constrained by their cognitive capacities and do not surpass their age and developmental levels with regards to their conceptual development. Therefore the conceptual vocabulary count makes more sense.
- According to Allman (2005) the measure of “Total Vocabulary (total scores achieved in language A + language B) is not sufficient for the examination of differences in vocabulary size of bilinguals and monolinguals due to the vocabulary overlap. A measure of total unique words or Conceptual Vocabulary, which is a combination of vocabulary scores in both languages considering words describing the same concept as one word, provides additional information about bilinguals’ vocabulary sizes.”
- According to a study by Gross,Buac and Kaushanskaya (2014) Conceptual scoring increased the proportion of children with vocabulary scores within the average range.

Research Supporting the Conceptual Vocabulary Measure/Count

- A study by Megan Gross, Milijana Buac, and Margarita Kaushanskaya (2014) found the “Conceptual scoring removed the significant difference between monolingual and simultaneous bilingual children in the receptive modality but not in the expressive modality; differences remained between monolingual and sequential bilingual children in both modalities. However, in both bilingual groups, conceptual scoring increased the proportion of children with vocabulary scores within the average range.”
Obtaining a Conceptual Bilingual Vocabulary Score for Spanish & English

- Fereshteh Kunkel (2009) suggested using MacArthur-Bates Communicative Development Inventories for the purpose of obtaining a conceptual bilingual score.
- Administer the Spanish and English versions of the MacArthur-Bates. Score them normally to obtain scores in each language.
- For the bilingual score, be sure to only count one word for each labeled concept regardless of whether the child has a label for that concept in both languages. Example: Zapato + shoe = 1 concept.
- The bilingual score, therefore, represents the number of concepts expressed regardless of language.

Bilingual Score Reporting

MacArthur-Bates Communicative Development Inventory II: Words and Sentences

- SPANISH words produced
  - 161
  - 33rd percentile (Spanish version)

- ENGLISH words produced
  - 128
  - 11th percentile (English version)

- BILINGUAL Vocabulary Count
  - 219
  - 35th percentile (Spanish version)
  - 22nd percentile (English version)

Why is a Bilingual Count Important?

- Using a single language score excludes a significant portion of bilingual children’s productive vocabulary, thus underestimating lexical knowledge (Pearson et al., 1993).
- The research is clear—Whether you use the total vocabulary measure or the conceptual vocabulary measure, a bilingual score is necessary because bilingual children’s productive vocabulary is distributed across two languages.
Usefulness of Single Language Measures

Even though bilingual vocabulary measures are the measures currently recommended for identifying young bilinguals at risk for language delay, single language measures still are of value in an academic setting when professionals need to know about a child’s English proficiency or performance relative to monolingual peers (Pearson et al., 1993).

Bilingual Acquisition

Bilingual acquisition can take place in one of two ways:

- **Simultaneous acquisition** (dual language exposure)
  When a child is raised bilingually from birth, or when the second language is introduced before the age of three.

- **Successive acquisition** (Sequential acquisition)
  When a second language is introduced after the native language is established. “If a child is exposed to the second language at an older age (over age three)” (National Center for Research on Cultural Diversity and Second Language Learning, 1995).
Simultaneous acquisition / Dual Language Exposure.

The research:

- The pattern of simultaneous acquisition in infants acquiring two languages is very comparable to their monolingual counterparts. Research on bilingual infants has shown that they begin to build representations of their new language within the first few months of life.

- Researchers have found that bilingual infants begin acquisition with a default assumption that their new language is accessible and understandable to them. This first stage continues as children begin to discover that a new and different language is being spoken.

- Early dual language exposure is most optimal to achieve highly proficient and equal dual language mastery as well as to achieve successful reading acquisition. (Petitto, 2005).

- Researchers have consistently found that proficiency in the later-acquired bilingual and/or second language learners declined dramatically if learned after puberty, if not earlier. (n-d).

- But, "while early dual language exposure is most optimal—children arriving late to a bilingual context can and do achieve language competence in their native language." (Petitto & Dunbar, 2004).

Sequential Acquisition

Tabors and Snow (1994) four stages of sequential acquisition of a new language.

- Stage 1: Home Language. Monolingual children in a new language environment will continue to speak their home language. They often appear oblivious to the new language, perhaps because much of the language spoken to adults and other children is inaudible or incomprehensible to them. This first stage continues even as children begin to discover that a new and different language is being spoken.

- Stage 2: Novice Period. This stage begins when children start to realize that their primary language is not being understood. They will increase their vocabulary and begin to incorporate new words and phrases into their speech. They may also begin to use gestures and other nonverbal means to communicate. They will watch and listen intently to the new language, using a variety of activities to learn about it. They may ask questions and engage in conversations with other bilingual children.

- Stage 3: Telegraphic and Formulaic Speech. During this time, children intentionally use individual words and phrases from the new language in their speech, sometimes with the wrong pronunciation or word order. They may use phrases such as “daddy truck, Jose cat.” Some mixing of the English and the home language may occur. Formulaic speech refers to phrases or short sequences that children learn in their entirety to help them get their ideas across. They may use nonverbal means to communicate. They will use gestures and other nonverbal means to communicate. They may use nonverbal means to communicate.

- Stage 4: Productive Language. This stage begins when children can effectively and accurately use the new language in various activities. They will use the grammar and vocabulary of the new language in a variety of contexts. They may use the language for social purposes, such as communicating with their peers or parents. They may also use the language for educational purposes, such as reading and writing.

Simultaneous Acquisition vs. Successive Acquisition

- "The pattern of simultaneous acquisition is very comparable to their monolingual counterparts. It was once widely believed that bilingual children begin acquisition with a default assumption that their new language is accessible and understandable to them. Researchers have consistently found that proficiency in the later-acquired bilingual and/or second language learners declined dramatically if learned after puberty, if not earlier. But, "while early dual language exposure is most optimal—children arriving late to a bilingual context can and do achieve language competence in their native language." (Petitto & Dunbar, 2004).
Equilingualism

- True balanced bilingualism, also called equilingualism, occurs when individuals are equally fluent in two languages. The fact is that there are different levels of bilingualism and that "native-like proficiency in both languages, referred to as "true" bilingualism, is rare" (Cutler, Mehler, Norris, & Segui as cited by Gottardo & Grant, 2008).
- It is also accurate to say that most multilingual people have a dominant language.

Two Approaches to Facilitate Bilingualism

- One parent speaks to the child in one language and the other parent speaks to the child in the other language. "This approach can be a good compromise for families who want their children to maintain their heritage language but at the same time don’t want them to arrive at school not knowing English" (Hinton, 1999).
- Using the mother tongue at home and the language of the environment / society outside of the home. (this is used by Limited English Proficient Families). For example: at school, church or when they are playing with neighborhood kids. (it is advisable that therapy services provided in the home be in the native tongue - use an interpreter if necessary).

Successfully Raising a Bilingual Child

What it takes…

1) At least one parent speaks only their mother-tongue to the child.
2) The child has some reason to learn the languages (motivation).
3) There is reinforcement of some kind for the native languages, preferably outside the home. (festivals, church, peers)
4) Consistent and meaningful language input.

Based on work by Deborah D.K. Ruuskanen from The Linguistics List: Eastern Michigan University
Successfully Raising a Bilingual Child

What it takes... (additional suggestions)

1) Create and implement a language plan stating which approach will be used. According to Rosenberg (1996), success in raising a bilingual child “appears to depend on whether a ‘language plan’ has been worked out in advance.”

2) Once the family has chosen an approach, consistency is key. (stick to the plan)

3) Emphasize the separation of languages.

4) Early exposure is important.

5) Keep in mind, immersion in both languages and constant input are critical.

What is a Language plan? Why do we create one?

- A language plan can be as simple as selecting a strategy and writing it down.
- Writing it down provides a tangible guide that helps parents, as well as providers involved with the child.

Language Plan Sample

Goal: Bilingualism

Strategy/plan:

- Both parent speaks language A
- Therapy sessions in the home use language A
- Home media in language A
- School – language B
- Additional ways to strengthen language A input: Involvement within the cultural community (festivals, church, parades, etc.).
- Additional ways to strengthen language B input: Incidental learning in the outside environment (movies, library, supermarket etc.)
Approach for Multilingualism

One parent speaks his/her native language to the child (e.g., Spanish) and the other parent speaks his/her native language to the child (e.g., Mandarin). The child obtains the country's language from others such as a nanny, friends, the outside environment, (e.g., day care and school).

Oral Bilingualism and Hearing Loss

The historical consequences of hearing loss, that have included the inability to interpret speech sounds thus affecting communication ability, are changing due to new technologies, newborn hearing screening, and early intervention efforts.

Cochlear Implants and Bilingualism

- "The results of the four studies reviewed indicate that children with cochlear implants raised in bilingual oral environments can indeed learn more than one language. (Cote and Gilliat, n.d)
- "Children implanted at younger ages tended to demonstrate better skills more quickly, and tended to reach levels similar to children with normal hearing at much faster rates. "..."A cochlear implant can make oral proficiency in more than one language possible for prelingually deaf children." (Zwolan & Thomas, 2011)
- "New technology makes learning tonal languages a possibility for children with CIs." They also stressed the importance of following "the principles of the Auditory-Verbal Approach, for bilingualism to succeed when working with children with cochlear implants." (Zwolan & Thomas, 2011)
Deafness / Hearing Loss and Multilingualism - Research

- "...children, including deaf children, can become multilingual" (Gerner de García, 1993 as cited in Call, 2006)
- Call (2006) reported "that three languages will not confuse a deaf or hard-of-hearing child" (Gerner de García 1993b, 1995a as cited in Call, 2006) and that as long as "self identity is not a dilemma, being trilingual can boost a child's self esteem".

Bilingualism and Hearing Loss

Preliminary conclusions from a study by Douglas and Zarate (2008) found:

- "With good speech perception and intervention and immersion in both languages children tended to make monthly gains relatively equal in both languages..."
- "The children demonstrated the same bilingual phenomenon as reported in normal hearing developing bilinguals”
- "Bilingualism is a team effort and no less difficult than helping a hearing impaired child to acquire one language”

Bilingualism and Sign Language - Bimodal Bilingualism is This Possible?

- Hearing children exposed to two languages since early childhood, be it two spoken languages or a signed language and a spoken language, achieve their language milestone on the same maturational timetable. (Petitto et al., 2001, Journal of Child Language).
- "Being exposed to two languages from birth- and, in particular being exposed to a signed and spoken language from birth does not cause a child to be language delayed and confused” (Petitto, L. A., & Kovelman, I., 2003).
Bilingualism and Sign Language - Bimodal Bilingualism

Yoshinaga-Itano (in press) as cited by Madden (2008), found that the three profoundly deaf children in his study who went into amplification with no speech perception or discrimination but some awareness of sound had auditory and speech instruction as well as sign language instruction and had substantial sign vocabularies prior to CI implantation. These children developed age-appropriate or near age-appropriate spoken vocabulary within 12 to 14 months post-implant. Yoshinaga-Itano believes that this development appears to be evidence of oral phonology piggybacking onto the lexical sign language foundation.

How is This Possible?

According to Petitto et al. (2000), “the human brain can entertain multiple pathways for language expression and reception, and the cerebral specialization for language functions is not exclusive to the mechanisms for producing and perceiving speech and sound.”

“Infants are born with a propensity to acquire language. Whether the language comes as speech or sign language, it does not appear to matter to the brain” (Petitto, n.d.).

Benefits of bilingualism and bilingual education

Metalinguistic awareness has been shown to develop faster and more effectively in young bilinguals as compared to young monolinguals (Bialystok, 2001). One of the factors that might make possible a bilingual advantage for metalinguistic awareness is that young bilinguals must early on understand the arbitrary relationship between objects in the real world and their linguistic label (the same dog can be called “dog” in English and “perro” in Spanish). Bilingual children reading in their two languages might also have an advantage in grasping the symbolic nature of sound-to-letter correspondence, as a plethora of sounds in their two languages corresponds in a very multifaceted manner to their two writing systems (Bialystok, Shenfield and Codd, 2000).

Children who grow up learning to speak two languages are better at switching between tasks than are children who learn to speak only one language (for a review of this research, see Bialystok, 2001). Children who learn to speak two languages at an early age have advantages in managing two linguistic systems at once, and so they are in a better position to develop better working memory, for example (Bialystok, 2001). However, bilinguals are also slower to acquire vocabulary than are monolinguals, because bilinguals must divide their time between two languages while monolinguals focus on only one language. (April 3, 2012NIH/National Institute of Child Health and Human Development. http://www.sciencedaily.com/releases/2012/04/120403112006.htm)

Research shows that children who speak more than one language are multiply advantaged over their monolingual playmates — in communication, cognition, and social interaction (Cambridge University. http://www.cam.ac.uk/research/bilingualism-is-good-for-learning).

“Although bilingualism is perfectly normal in many places in the world, it is comparatively new in the English-speaking world,” added Dr. Alexopoulou. “The problem with an education system set up with assumptions of monolingualism is that there is a risk that children may miss out on the significant benefits conferred by maintaining their bilingualism. Dr. Alexopoulou explained: “Studies show that a bilingual child is better able to cope with tasks that involve attention, memory and concentration. The mental gymnastics needed to constantly manage two or more linguistic systems increases cognitive flexibility and makes learning easier.”

Empirical evidence suggests that bilingualism in children is associated with increased meta-cognitive skills and superior divergent thinking ability (a type of cognitive flexibility), as well as better performance on some perceptual tasks (such as recognizing a perceptual object “embedded” in a visual background) and classification tasks (for reviews, see Bialystok, 2001; Cummins, 1976; Diaz, 1983, 1985).
THANK YOU!
References continued…


