Spanish Verb Productions in Bilingual (Spanish-English)
Children Experiencing Potential First Language Loss
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BACKGROUND and PURPOSE

Background
- Dual Language Learners (DLLs): children acquiring more than one language.
- Native Language (L1) Maintenance: continued L1 growth or maintained L1 proficiency and usage.
- L1 Loss or Attrition: phenomenon occurs when a person’s expressive L1 abilities decline over time (Guiberson et al., 2006; Anderson, 1999).
- DLLs who experience L1 loss while acquiring skills in their second language (L2) can appear to have a language disorder, complicating the clinical decision-making process (Kaufman & Aronoff, 1991).

Research in L1 Loss
- Bybee’s (1985) lexical morphology model: lexical loss, including verbal morphology, is impacted by a reduction in L1 input and loss.
- Anderson (2001) examined productions of verb lexeme frequency and morphology in two Spanish-English DLLs over time.
  - Verb error productions: specifically person/number distinction, tense/aspect, mood, stem changes, as well as verb omissions.
  - Both children exhibited most errors in person/number distinction, irregular forms, and mood.
- Anderson mapped out diversity and frequency of verb lexeme use and tense, comparing error productions of specific verb lexemes to productions of the same lexeme in previous conversation samples to analyze change over time.
- Guiberson et al. (2006) found that grammatical errors were predictive of L1 loss.

Purpose
- The current study is modeled after Anderson’s (2001) study of verbal morphology and L1 loss, aiming to extend it with a larger participant group.
- This study examines grammatical errors of verb productions to describe potential L1 loss and maintenance.
- Purpose: to systematically describe the variation in Spanish verb production and errors by preschool-age DLLs exhibiting L1 loss or maintenance over time.

Participants
- 14 preschool-age, typically-developing, Spanish-English DLLs attending an English-immersion school.
- The mean age for the participants at the study onset was 4 years, 4 months.

Language Samples
- 56 narrative retell language samples were elicited in Spanish using four wordless picture books (counterbalanced by story), collected over four consecutive academic semesters (Waves 1-4).
- Samples collected every semester (fall; spring) beginning in preschool.
- The retells were recorded, transcribed, and coded using the Systematic Analysis of Language Transcripts (SALT; Miller & Iglesias, 2017) software.

Coding and Analysis
- Each sample was coded for verb tense and morphological errors at the word-level.
- Verb errors were analyzed to identify patterns in error productions for person/number distinction, errors in irregular forms, omissions, and stem changes (Anderson, 2001).
- The present, preterit, imperfect, present progressive, imperfect progressive, infinitive, and periphrastic future tense were analyzed for frequency over time.
- Results from Waves 1-4 were compared to qualitatively evaluate change as well as identify error production patterns over time.
- Two groups identified after analysis:
  - 7 DLLs who exhibited maintenance in accurate preterit tense use.
  - 7 DLLs who exhibited a decline in accurate preterit tense use.

Coding Examples

METHOD

RESULTS

Verb Tense Productions: Aggregated Across Waves
- The preterit (58%) and imperfect (19%) past tenses were the most frequently produced, which could be a reflection of the nature of the story retell task.

Frequency of Occurrence: Verb Error Types per Wave
- Only the most frequently occurring types of errors are depicted in this figure.
- A large increase in regularization of irregular verbs was observed from Wave 1 (occurrence) to Wave 4 (12 occurrences).

Frequency of Verb Errors Across Waves and Tenses
- The largest mean proportion of errors occurred in the preterit (52%) and imperfect (21%) tenses; there was also a steady increase in errors of infinitive forms.

Proportion of Preterit Tense Accurate Use: Decline (Loss)
- Half the participants exhibited relative decline in accurate preterit tense use over time.
- Mean decreased from 92.4% (Wave 1) to 79.3% (Wave 4).

Proportion of Preterit Tense Accurate Use: Maintenance
- Half the participants exhibited relative mastery-level maintenance in accurate preterit tense use over time.
- Mean remained <90% across Waves 1-4.

DISCUSSION

Verb Tense Use and Errors over Time
- A relative increase in the proportion of errors to total verb productions was observed from Waves 1-4, which may be indicative of L1 loss.
- The increase in regularization of irregular verbs and errors of infinitive use, paired with maintenance and decline in accurate preterit tense use, may indicate characteristics of L1 loss.
- This study relied on narrative retell samples, which may have limited the diversity of verb tensed produced.

Preterit Tense: DLLs with Decline (Loss) vs. Maintenance
- The decline in accurate preterit tense use may be indicative of L1 loss in these participants, though further analysis of the grammaticality of their language samples would need to be conducted.
- DLLs who maintained accurate preterit tense use despite an increase in frequency of verb productions may indicate mastery of this verb tense.

Acknowledgements

Dissertation Research Award (Hiebert), The University of Texas at Dallas
Grant GA-2013-016 - Jerry M. Lewis, M.D. Mental Health Research Foundation (Rojas); BBS Faculty Research Initiative Grant (Rojas); Grant 11366 - Anonymous Donor (Rojas).
We would like to thank the participating children and families, and the members of the UT Dallas Bilingual Language Lab.
Disclosure statement: Authors #1 (Faithe Snyder), #2 (Lindsey Hiebert), and #3 (Raúl Rojas) have no conflicts of interest.