Introduction

Paradis (2007) notes that, “[e]ludes and language (L2) acquisition in children has been seldom studied as a subfield with its own issues and questions separate from adult L2 acquisition” (p. 387) despite the fact that “a substantial body of research indicates that it takes 5 to 7 years in English school for L2 children to have academic verbal skills on par with native speakers (Cummins, 2000), but there has been less research focused on the time it takes to master oral language” (p. 393).

Research on second language phonology is far more replete in adult learners (e.g., Major, 2001) than in children who are learning English successively after acquiring a foundation in their first language and whose first language is not being supported in the educational environment. Theoretically, the path of ELLs to phonological acquisition is not the same as for children who have acquired both languages simultaneously (Genesee & Nicodais, 2007). However, there is a dearth of research examining second language child phonology despite the fact that the United States houses a relatively large number of ELLs. Kindler (2001) estimated that there are almost 4.6 million English Language Learners in the schools representing a 105% increase since 1990. Currently, phonological development in this group of children is unknown. As Major (2001) indicates, “…when acquiring L2 phonology, the younger the better, but how young and how much remains unresolved” (p. 11).

Purpose of Current Study

The purpose of this study was to determine the English phonological skills of children who are acquiring English as a second language.

Participants

• Ten children ages 54-81 months (mean = 67.9 months, standard deviation (sd) = 7.53)
• First languages were Farsi, Cantonese, Korean, Mandarin, Romanian, and Spanish
• Age of arrival in Canada where the data were collected averaged 50.9 months (sd = 20.4)
• Age of exposure averaged 59.6 months (sd = 8.6)
• Exposed to English for an average of 8.3 months (sd = 3.07)

Procedures

Connected speech samples were elicited in English through a semi-structured interview within the context of a 45-minute freestyle session with a native English speaker that was videotaped. Children produced 499 utterances (sd = 84.1), and mean length of utterance-phonemes (M Li/m) averaged 3.98 (sd = .79).

The samples were transcribed into Logical International Phonetic Programs (LIPP) (Oller & Delgado, 2000) for phonological analysis.

Analyses

(1) phonetic inventory
(2) overall consonant accuracy
(3) overall vowel accuracy
(4) accuracy by sound class (stops, nasals, fricatives, affricates, liquids, and glides)
(5) percent-of-occurrence for phonological patterns (unstressed syllable deletion, cluster deletion, cluster reduction, initial consonant deletion, final consonant deletion, stopping, fronting, and backing)

Results

Phonetic Inventories

• The majority of children included all sounds in their phonetic inventory, even later-developing sounds such as /θ/-sounds.
• Only 4 instances when children did not produce every sound.

Correlations

• Pearson correlations were computed between phonological analyses and the socio-linguistic variables:
  • age
  • number of utterances
  • mean length of utterance-phonemes
  • 1st language
  • age of arrival
  • age of exposure

Overall, there were no significant correlations between the socio-linguistic variables and phonological outcome measures.

Strength of the correlations, although non-significant, tended to be small to medium.

Accuracy (Percentage)

<table>
<thead>
<tr>
<th>Mean</th>
<th>S.D.</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vowels</td>
<td>97.30</td>
<td>71</td>
</tr>
<tr>
<td>Consonants</td>
<td>94.02</td>
<td>73</td>
</tr>
<tr>
<td>Stops</td>
<td>92.39</td>
<td>73</td>
</tr>
<tr>
<td>Nasal</td>
<td>97.86</td>
<td>72</td>
</tr>
<tr>
<td>Plosives</td>
<td>98.52</td>
<td>72</td>
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<tr>
<td>Articulates</td>
<td>96.46</td>
<td>74</td>
</tr>
<tr>
<td>liquids</td>
<td>94.38</td>
<td>74</td>
</tr>
<tr>
<td>Glides</td>
<td>96.40</td>
<td>72</td>
</tr>
</tbody>
</table>

Percentage-Of-Occurrence for Phonological Processes

<table>
<thead>
<tr>
<th>Mean</th>
<th>S.D.</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstressed Syllable Deletion</td>
<td>96</td>
<td>73</td>
</tr>
<tr>
<td>Cluster Deletion</td>
<td>74</td>
<td>71</td>
</tr>
<tr>
<td>Initial Consonant Deletion</td>
<td>74</td>
<td>71</td>
</tr>
<tr>
<td>Cluster Reduction</td>
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<td>71</td>
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<tr>
<td>Final Consonant Deletion</td>
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<td>71</td>
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<tr>
<td>Gliding</td>
<td>74</td>
<td>71</td>
</tr>
<tr>
<td>Consonant Fronting</td>
<td>74</td>
<td>71</td>
</tr>
<tr>
<td>Consonant Backing</td>
<td>74</td>
<td>71</td>
</tr>
</tbody>
</table>

Discussion

• Overall, the phonological skills of the English language learning children (ELLs) were relatively strong.
• Children produced later-acquired sounds (e.g., /θ/-sounds).
• This finding is similar to that found for other groups of ELLs (e.g., Gildersleeve-Neumann, et al., 2008) and commensurate with monolingual peers (McLeod, 2009).
• Majority of the children exhibited overall consonant accuracy and accuracy on sound classes greater than 90%.

Clinical Implications

Despite the relatively small number of participants in this investigation, this study provides preliminary data on the phonological skills of English Language Learners. This data will aid clinicians in knowing what they should expect from children of a similar age and time in language learning English as a second language. The results from this study ultimately will help distinguish disorders from typical phonological development in an understudied population.

References


