## **Critical Appraisal Form**

Date: January 16, 2019

Members in Discussion: Alyssa Dixon, Jana O'Connor, Anna Crauford, Lynne

Patrick, Elisha Blackburn.

Article: Children's Consonant Acquisition in 27 Languages: A Cross-Linguistic Review (McLeod, S. & Crowe, K. 2018)

Participants: Inclusion criteria for article selection included a minimum age 5 to 60 months and maximum age 24 to 155 months. Approximately even split of male/female.

Control or Comparison Group/s: N/A

Methods: Systematic literature search and a scoping review framework was used. Database search, expert panel and inclusion/exclusion criteria. 60 studies describing 64 unique studies were reviewed in this article. Used 75% and 90% acquisition of specific sound. Most studies (85.9%) described phonemes in word initial position.

Outcomes: Overall, study authors concluded that on average, 90% of the world's phonemes are acquired by five years of age, with the latest acquired consonants being those that require use of the anterior tongue, including: trills, flaps, affricates and fricatives.

Strengths of Research: This was a comprehensive review of articles, across a large number of countries and languages increasing their overall capacity to make assumptions in regards to generalized speech sound development.

Limitations of Research: Several limitations were identified by the authors as well as participants in the group discussion, including:

- exclusion of articles may not have been included due to the summary and/or study not available in English, which limited a larger scope of data being included;
- limited information regarding participant's demographic and social backgrounds
- studies mostly included typically developing children
- studies that included fewer than 10 participants were excluded from the systematic review
- limited data available for multilingual children, therefore reducing the applicability of the findings to this population

	Compelling	Suggestive	Equivocal/Uncertain
Validity		$\overleftrightarrow{\Delta}$	
Clinical importance	☆		

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## **Clinical Implications:**

- This article summarizes that all children should be highly intelligible by their fifth birthday, which is a stark contrast to many frequently sited developmental norms.
- In clinical practice, this could impact a clinician's approach to choosing target sounds (i.e. choosing to employ a Cycles Approach).
- Percent consonants correct (PCC) may also be a more valuable tool when evaluating progress for children that are highly unintelligible and informing target sound selection.
- Currently, many early intervention therapists are responsible for incredibly large caseloads and are expected to employ caseload management strategies to effectively determine access to service. However, if we accept this article's summary that children should be highly intelligible by their fifth birthday, the often used caseload management strategies are then counter to evidence-based practice. We should then move towards advocating for early intervention policies that are based on evidence rather than caseload management strategies.