

Updating Your Approach to Speech Sound Disorders in Schools: Research and Practice

Marie C. Ireland, Ph.D. CCC-SLP, BCS-CL

- [ASHA's Practice Portal Clinical Topic Speech Sound Disorders](#)
- McLeod, S. & Crowe, K. (2018). [Children's consonant acquisition in 27 languages: A cross-linguistic review](#)
- Crowe, K., & McLeod, S. (2020). [Children's English consonant acquisition in the United States: A review.](#)
 - Re-analysis of studies of consonant acquisition and tests with a combined total of 18,187 children
 - Does not separate norms for boys and girls
 - Most sounds acquired by age 6
- Ireland, McLeod, Crowe and Farquarson (2020) [Evaluating Children in U.S. Public Schools With Speech Sound Disorders: Considering Federal and State Laws, Guidance, and Research](#)
 - Examines use of norms with IDEA and state requirements
 - Tests are not the sole indicator of a SSD under IDEA
 - Case studies of three students
- The Informed SLP (2018) [That one time a journal article on speech sounds broke the SLP internet](#) [Blog post].
- The Informed SLP (2020) [The Not-New Speech Norms Part 2: An American Tale](#): Say hello to the: Early 13, Middle 7, and Late 4?!
- McLeod, S. (2012). *Summary of 250 cross-linguistic studies of speech acquisition*. Bathurst, NSW, Australia: Charles Sturt University. <http://www.csu.edu.au/research/multilingual-speech/speech-acquisition>
- [Hustad, K.C., Mahr, T.J., Natzke, P., & Rathouz, P.J. \(2021\). Speech development between 30 and 119 months in typical children I: Intelligibility growth curves for single-word and multiword productions. Journal of Speech, Language, and Hearing Research. https://doi.org/10.1044/2021_JSLHR-21-00142](#)
 - Over 500 typically developing children who spoke American English
 - A standardized sample of single words and sentences orthographically transcribe recordings of these samples and used mathematical modeling to calculate rates.
 - Children should be
 - 50% intelligible by 4 years
 - 75% intelligible by 5 years
 - 90% intelligible a little past 7 years
- Predicting who will normalize without intervention for speech sound disorders (To, McLeod, Law, & Sam, 2022)
 - Conclusion: Stimulability and intelligibility were more useful prognostic factors of speech normalization when compared to (a)typicality of error patterns and expressive language ability.
 - Children with low intelligibility and poor stimulability and should be prioritized for speech-language pathology services given that their speech errors are less likely to resolve naturally.

State Level Guidance

- Virginia Department of Education has revised guidance on speech sound disorders that includes:
- References to newest normative data
- Elimination on gender based norms

- Tools to support evaluation
- Check with your state and use what is applicable

Educational vs Medical

- Clinical impairment is NOT sufficient for IDEA educational identification
- Clinical services are available for a fee
- Schools do not fill prescriptions for services

Civil Rights

- Identification of a child as disabled, who does not meet the federal definition of special education
- may have negative educational consequences and
- is a violation of the child’s civil rights (U.S. Department of Education, 2016)
- To address overidentification, IDEA requires states to submit data on every new eligibility in five disability categories. SLI is one of the five categories.

Eligibility Under IDEA

<p>To qualify as a child with a disability, a team must determine that:</p> <ol style="list-style-type: none"> 1. the student has an impairment 2. the impairment results in an educational impact 3. the child requires specially designed instruction to make progress <p>School-based SLPs must work as part of an interdisciplinary team that uses a variety of assessment tools and strategies to gather developmental, functional, and academic information (U.S. Department of Education, 2006; CFR 300.304)</p> <p>IDEA prohibits the use of “any single measure or assessment as the sole criterion for determining whether a child is a child with a disability...” (U.S. Department of Education, 2006, CFR 300.304 b. 2)</p>	<p>Evaluations for SSD under IDEA should document</p> <ul style="list-style-type: none"> • SSD using current research (normative data) • Educational impact • Need for specially designed instruction <p>Evidence-Based Eligibility To make evidence based decisions that comply with federal and state regulations, school SLPs must have awareness of:</p> <ul style="list-style-type: none"> • Federal regulations (IDEA) • AZ regulations • AZ guidance and resources • Evidence in our professional literature
---	--

<p>Impairment: Document using</p> <ul style="list-style-type: none"> • Standardized test • Sound inventory • Percent Consonants Correct 	<p>Educational Impact</p> <ul style="list-style-type: none"> • Academic <ul style="list-style-type: none"> ○ Reading or spelling issues • Behavioral/Social Emotional <ul style="list-style-type: none"> ○ Intelligibility or social emotional issues
--	---

Data from Classroom

- Writing samples to show sound errors in spelling
- Teacher data to show comprehension issues
- Intelligibility data from teachers and peers
- Student and teacher interviews documenting social-emotional issues
- Observation data

Intelligibility in Context Scale (ICS)

- Free parent-report tool
- Available in over 60 languages
- Documents children's intelligibility with different communicative partners

McLeod, S., Harrison, L. J., & McCormack, J. (2012). [Intelligibility in Context Scale: Validity and reliability of a subjective rating measure](#). *Journal of Speech, Language, and Hearing Research*, 55, 648-656.

Need for Specially Designed Instruction

- Examine if a child requires specially designed instruction to correct a SSD
- Examine stimulability or modifiability
- PCC Imitative Measure (Johnson, Weston and Bain, 2004)
- Stimulability-As part of a standardized articulation test or VDOE New form for Miccio Probe (VDOE, 2020; Miccio, 2002)
- Dynamic assessment to collect information on children's stimulability or modifiability

Research Based Tools

- [Articulation Infographic for Teachers and Parents \(PDF\)](#)
- [Miccio Probe \(PDF\)](#)
- [Percent Consonants Correct Imitative Task \(PDF\)](#)
- [IPA Bookmark/Reference Card \(PDF\)](#)

When Students are Not Eligible <ul style="list-style-type: none">• Parents may seek clinical services outside of the school setting (e.g., private practice, outpatient clinic, university clinic, or community)• SLP services may be offered in general education for children with SSD• MTSS or RtI services may be appropriate for students<ul style="list-style-type: none">○ Who are stimulable○ Who do not demonstrate an educational impact	Pre-referral intervention by SLPs may include <ul style="list-style-type: none">• Home practice programs for families• Before or after school programs• Time limited intervention groups (e.g., Speech Busters, Sound Breakers)✓ Check with your local school district for guidance on general education SLP services
--	---

Clinical Implications for SLPs <ul style="list-style-type: none">• School SLPs must consider multiple sources of data• document all three prongs of the definition of special education• not prioritize one source of data (e.g., standardized test scores or norms) over others	Strict adherence to these federal and state requirements may help to address the caseload challenges Professionals outside of the school setting should also be aware of the differences required for services under IDEA in the public school setting to not pressure schools for inappropriate services
---	---

ASHA Admission and Discharge Criteria

Factors appropriate for use under IDEA include:

- ✓ Unable to communicate functionally or optimally across environments and communication partners
- ✓ Communication skills negatively affect educational, social, emotional, or vocational performance

Factors not appropriate for use under IDEA:

- ✗ Failure to pass a screening assessment for communication
 - Relies on a single source of data
- ✗ The individual, family, and/or guardian seeks services to enhance communication skills
 - not sufficient to identify a child as “disabled” under IDEA

Eligibility Under IDEA

To qualify as a child with a disability, a team must determine that:

1. the student has an impairment
2. the impairment results in an educational impact
3. the child requires specially designed instruction to make progress

School-based SLPs must work as part of an interdisciplinary team

that uses a variety of assessment tools and strategies to gather developmental, functional, and academic information (U.S. Department of Education, 2006; CFR 300.304)

Considerations

- Educational identification vs. Medical/clinical diagnosis
- Civil rights issues when documentation for all criteria is lacking
- Overidentification and federal monitoring

What could you say when some of the following common statements or situations arise?

My child is 6 and needs speech therapy because this article says all sounds by age 5.	The private SLP report says my child should get treatment 4 days a week.
My caseload is too high – we can’t start using those new norms.	The teacher says the child doesn’t sound like the other children and she feels bad for the student.

SSD and Services in Schools

- Be sure teams are using data from multiple areas
- Carefully document educational impact and need for specially designed instruction
- Having an error does not mean you are eligible
- Consider approaches in general education (pre-referral intervention or MTSS)

Reflections and To Do Notes

- What are next steps?
- Who else will you involve in this work?
- What benefits do you see?
- What challenges do you anticipate?
- Who do you need to discuss this with in the LEA?

Free Resources

M Ireland Sept. 2024 MSHA Presentation

- [Eligibility, Educational Impact & Caseloads: State Agency Supports for School SLPs](#) (ASHA Poster)
- [Professional Learning Resources for School Based Professionals](#) (ASHA Poster)
- [Understanding Advocacy for School Funding](#) (PPT)
- [And the Award Goes To... School SLPs for Their Work on Assessing Educational Impact](#) (ASHA 2017)
- [Consider the Big Picture: Using Classroom Expectations to Guide Assessments and Develop Educationally Relevant Interventions](#) (ASHA 2017)
- [Dynamic Assessment: Examining Learning Potential and Reducing Bias in Assessment](#) (ASHA PPT)
- [Evaluation and Eligibility for Speech-Language Services in Schools \(SIG 16 Article\)](#)
- [Checklist of Requirements for Determination of SLP Services In Schools](#) (PDF)
- [Making the Caseload List and Checking it Twice: Evaluation and Eligibility Decision Making in Schools](#)
- Additional SSD Resources

Articles

- Speech Sound Disorders in Schools: Who Qualifies?
- [Standardized Tests and the Diagnosis of Speech Sound Disorders](#)
- [Using Developmental Norms for Speech Sounds as a Means of Determining Treatment Eligibility in Schools](#)
- [It Might Not Be “Just Artic”: The Case for the Single Sound Error](#)
- [Eligibility and Speech Sound Disorders: Assessment of Social Impact](#)

Podcasts

- We've been interpreting the articulation norms all wrong
- [Speech norms, eligibility for speech treatment, and advocacy](#)
- References
- American Speech-Language-Hearing Association. (2004). *Admission/discharge criteria in speech-language pathology*. Retrieved from www.asha.org/policy
- Crowe, K., & McLeod, S. (2020, in press). Children's English consonant acquisition in the United States: A review. *American Journal of Speech-Language Pathology*.
- Farquharson, K., & Tambyraja, S. R. (2019, March). Describing how school-based SLPs determine eligibility for children with speech sound disorders. *Seminars in Speech and Language, 40*(2), 105-112. <https://doi.org/10.1055/s-0039-1677761>
- Individuals with Disabilities Education Improvement Act of 2004, Pub. L. No. 108-446, § 118 Stat. 2647 (2004).
- Ireland, M., & Conrad, B. J. (2016). Evaluation and eligibility for speech-language services in schools. *Perspectives of the ASHA Special Interest Groups, 1*(16), 78-90. <https://doi.org/doi:10.1044/persp1.SIG16.78>
- Ireland, McLeod, Farquharson, Crowe (2020 in press) Evaluating Children in U.S. Public Schools with Speech Sound Disorders: Considering Federal and State Laws, Guidance, and Research, Topics in Language Disorders
- Johnson, C., Weston, A, Bain, B. (2004) An Objective and Time-Efficient Method for Determining Severity of Childhood Speech Delay [American Journal of Speech-Language Pathology](#) • Vol. 13. 55–65
- References
- Krueger, B. I. (2019). Eligibility and speech sound disorders: Assessment of social impact. *Perspectives of the ASHA Special Interest Groups, 4*(1), 85-90. https://doi.org/10.1044/2018_PERS-SIG1-2018-0016
- McLeod, S., Harrison, L. J., & McCormack, J. (2012). Intelligibility in Context Scale: Validity and reliability of a subjective rating measure. *Journal of Speech, Language, and Hearing Research, 55*, 648-656. [https://doi.org/10.1044/1092-4388\(2011/10-0130\)](https://doi.org/10.1044/1092-4388(2011/10-0130))
- Miccio, A. W. (2002). Clinical problem solving: Assessment of phonological disorders. *American Journal of Speech-Language Pathology, 11*(3), 221-229. [https://doi.org/10.1044/1058-0360\(2002/023\)](https://doi.org/10.1044/1058-0360(2002/023))

- State Education Agencies Communication Disabilities Council (SEACDC, 2016). *Checklist of requirements for determination of SLP services in schools*. Retrieved from <http://seacdc.org/uploads/3/5/3/6/35363928/regulation-guidance-decision-making-2016.pdf>
- The Informed SLP. (2018, December 30). *That one time a journal article on speech sounds broke the SLP internet* [Blog post]. Retrieved from <https://www.theinformedslp.com/how-to/that-one-time-a-journal-article-on-speech-sound-norms-broke-the-slp-internet>
- U.S. Department of Education. (2016). *Dear colleague letter: Preventing racial discrimination in special education*. Retrieved from <https://www2.ed.gov/about/offices/list/ocr/letters/colleague-201612-racedisc-special-education.pdf>

Suggestions for “What do you say”

<p>My child is 6 and needs speech therapy because this article says all sounds by age 5.</p> <ul style="list-style-type: none"> • Therapy in schools is for children who are disabled (IDEA) • Other data is required to make this decision • These norms state there is a range of acquisition that is normal beyond 5 • Identification as a child with a disability is serious 	<p>The private SLP report says my child should get treatment 4 days a week.</p> <ul style="list-style-type: none"> • IDEA is for children with a disability • Eligibility requirements must be documented for each question • Services should provide free and appropriate (not best) public education • Families may seek private services if they choose • Civil rights concerns and overidentification
<p>My caseload is too high – we can’t start using those new norms.</p> <ul style="list-style-type: none"> • Professionals use current research to guide practice • The team still needs data for each eligibility criteria question • Some students should be considered for dismissal if there is not documentation of the educational impact and need for specially designed instruction • These norms state there is a range of acquisition that is normal beyond 5 	<p>The teacher says the child doesn’t sound like the other children and she feels bad for the student.</p> <ul style="list-style-type: none"> • Documentation of the educational impact is required • Multiple sources of information are required • Civil rights concerns and overidentification • Feeling bad for a child isn’t reason to call them disabled