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Meet Your Presenter

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Today's Discussion

1. The State of Kindergarten Literacy
2. Theory Behind the Well Screening®
3. The Well Screening
4. Benefits
5. Case Studies
6. Educational and Clinical Relevance

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The State of Kindergarten Literacy

- The United States Census Bureau (2020) reported that approximately four million children enter kindergarten in the United States each year.
- Many children are not ready for kindergarten across the socioeconomic spectrum.
- 1 out of 4 children from moderate- or high-income families and 1 out of 2 children from lower-income families are not ready for kindergarten (Williams, 2019).

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The State of Kindergarten Literacy (cont.)

- Children are exposed to different levels of literacy and come from diverse socio-economic, cultural, and educational backgrounds.
- Children who do enter kindergarten are heterogenous in their skill set and exposure to preliteracy and language skills.
- 8% of entering kindergartners have significant language disorders that negatively impact academic growth (Norbury et al., 2016; Tomblin et al., 1997).
- Others have estimated that up to 16% of school aged children will have difficulty learning to read (Moats, 2020; Shaywitz, 2003).

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The State of Kindergarten Literacy (cont.)

- Half of the children with language disorders meet criteria for a specific reading disability during elementary years (Catts et al., 2002).
- 16-24% of children with language disorders (Mueller & Tomblin, 2012) and 30% of children with specific reading disability (International Dyslexia Association, 2008) also have attention deficit hyperactivity disorder (ADHD).
- Co-morbid disorders (e.g., diagnosed with more than one disorder) may compound each other, causing multiple learning difficulties for the child.

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Why Screen in Kindergarten?

- The kindergarten classroom is comprised of diverse learners, and professionals want a measure that taps each child's skill set to help individualize instruction.
- Longitudinal studies of language and pre-reading profiles of kindergartners provide valuable information and insights into children who are typical learners, atypical learners, or "at-risk" for learning disabilities (Ozernov-Palchik et al., 2017; Weiler et al., 2018).
- 30 years of research has shown that early identification and intervention during early childhood achieves immediate and sustained developmental benefits (Hebbeler et al., 2007, 2016).

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Why Screen in Kindergarten? (cont.)

- Early identification and early intervention programs generate important benefits for both young children at risk for disability and for those with established disabilities (Owens, 2017).
- Children who get off to a poor start in learning rarely catch up (Adlof, 2020; Torgesen & Burgess, 1998).
- Children who succeed early-on receive the most positive reinforcement leading to a positive self-image, motivation to work hard, and success in school (Ramey & Ramey, 2006; Ramey et al., 2007).
- The old "wait and see" recommendation when a child is lagging behind same aged peers is no longer popular.

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Theory Behind the Well Screening

- The Well Screening is based on the Model of Speech/Language and Learning Skills (Ekelman & Lewis 2019).
- The Well Screening looks at multiple skill areas across interdisciplinary fields.
- It is helpful to depict the relationships among speech, language, and learning skills when discussing children's unique learning profiles.
- Visualizing these relationships in the form of a model simplifies the process.

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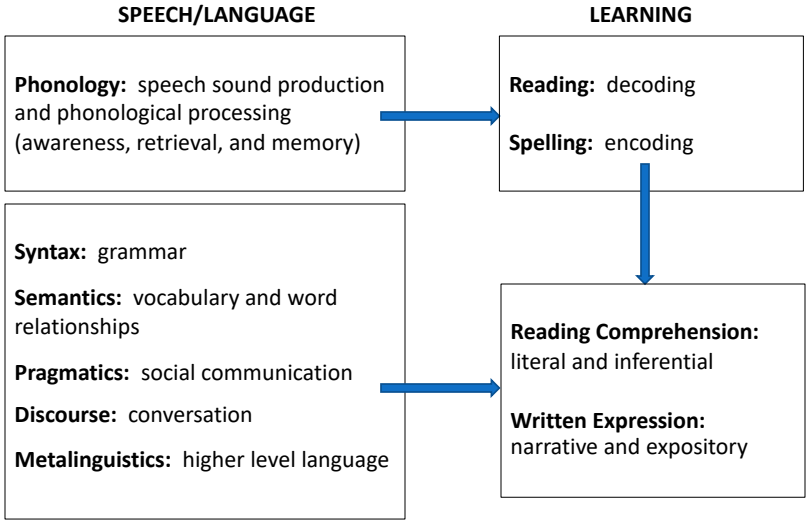
Model of Speech/Language and Learning Skills



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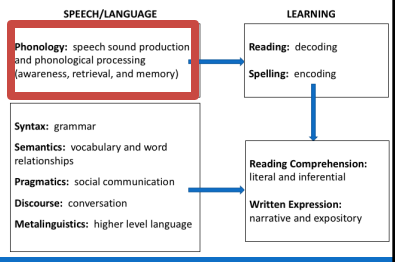
Speech/Language: Phonology

Speech sound production is the ability to produce the sounds in language correctly. Children with speech sound production disorders (rule-based pattern errors such as consonant cluster reduction "top" for "stop") are at higher risk of having reading difficulties than children with common articulation errors (/w/ for /r/ substitution).

Phonological awareness is the ability to manipulate sounds in spoken words, as well as the awareness of the sound structure of language. Deficits in phonological awareness have been identified as one of the strongest early predictors of reading decoding and is commonly used to identify children at risk for dyslexia.



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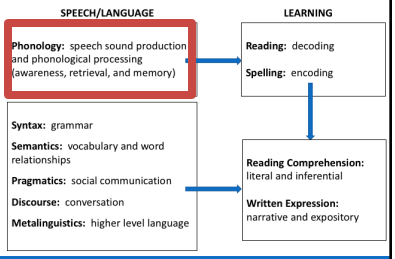
Speech/Language: Phonology (cont.)

Working memory is the ability to hold a small amount of material in memory for a short time while simultaneously processing the same or other information. Working memory deficits are common among individuals with attention deficit hyperactivity disorder (ADHD) and interfere with the processing of auditory information.

Retrieval is the ability to access stored information efficiently. Efficient retrieval of phonological information is necessary for fluent reading and expressive language.



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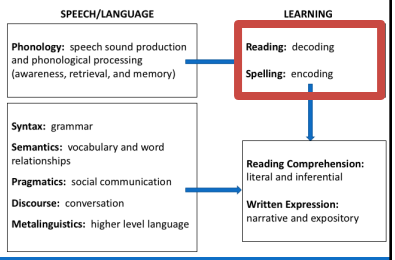
Learning: Reading, Decoding, and Spelling

Reading (decoding) and spelling (encoding) require an understanding of the alphabetic and orthographic principles.

- **The Alphabetic Principle** is the awareness that written words are comprised of letters that represent sounds.
- **The Orthographic Principle** is the awareness that patterns of letters represent syllabic and morphemic (word) structures.



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Phonology ⟶ Reading/Spelling

- When the speech/language area of phonology is deficient, it directly interferes with the development of reading (decoding) and spelling (encoding).
- When the learning area of reading (decoding) and spelling (encoding) are deficient, this indirectly interferes with reading comprehension and written expression.
- If individuals have reading (decoding) deficits, they cannot read the information well enough to know what is contained within the text. The same is true for written expression when spelling (encoding) is impaired.

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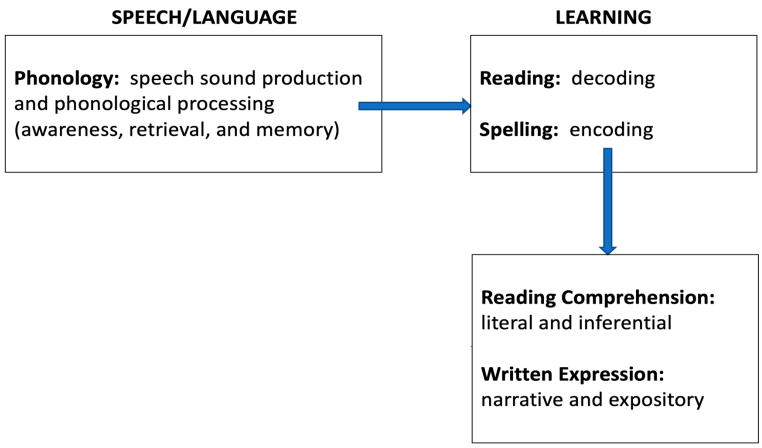
Phonology ⟶ Reading/Spelling



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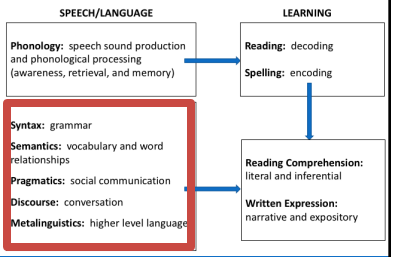
Higher-Level Language:
Syntax, Semantics, Pragmatics, Discourse, Metalinguistics

Syntax is the system of grammatical structure. Children who struggle with syntax have difficulty comprehending what they read and expressing themselves when writing.

Semantics is the meaning system of language and involves vocabulary and word relationships. Children who struggle with semantics have difficulty getting to the deeper meaning of written information and developing vocabulary.

Pragmatics/Social Communication is the system of appropriate language use in social contexts**.** Children who struggle with pragmatics have difficulty understanding the context of written information.



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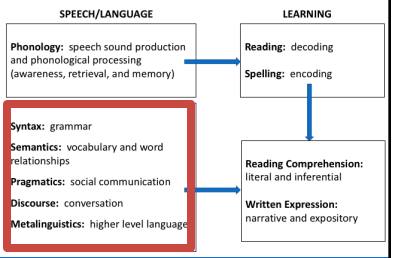
Higher-Level Language:
Syntax, Semantics, Pragmatics, Discourse, Metalinguistics

Discourse involves communication beyond the sentence level. Children who struggle with discourse have difficulty connecting ideas when reading or writing at the paragraph level.

Metalinguistics involves higher level language skills (making inferences, interpreting multiple meanings, understanding figurative language, etc.). Metalinguistic skills become more important as children are expected to move beyond literal interpretation of written material.



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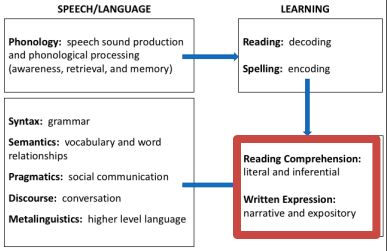
Learning: Reading Comprehension and Written Expression

Kindergarten children are just learning to read and spell, so this portion of the model involves skills that are not yet mastered.

- **Reading comprehension** is the ability to understand what you read when reading (decoding) is not impaired and fluent.
- **Written expression** is the ability to write your thoughts down on paper when spelling (encoding) is not impaired and fluent.



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Higher-Level Language ➡ Reading Comprehension/Written Expression

- When the higher-level areas of language (i.e., syntax, semantics, pragmatics, discourse, and metalinguistics) are deficient, this directly interferes with reading comprehension and written expression.
- Children with language vulnerabilities are often missed until third grade when reading and writing demands increase.
- It is important for educators to understand higher-level language areas in order to identify children at risk for language disorders and to target instruction in language for all students given the heterogeneity of the class.

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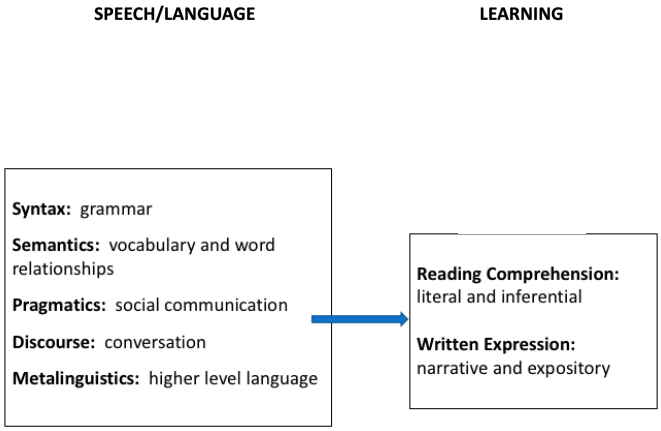
Higher-Level Language ➡ Reading Comprehension/Written Expression



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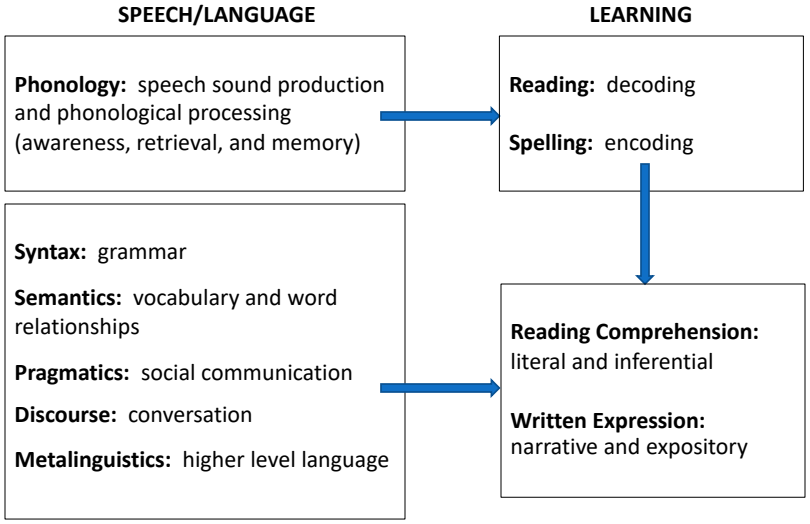
Model of Speech/Language and Learning Skills



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The Well Screening

Receptive Language: Understanding and processing language when listening and reading

Expressive Language: Retrieving and formulating language when speaking and writing

Social Communication: Using verbal and nonverbal communication in various social contexts

Early Literacy: Learning letter names and their sounds, rhyming, and sound play

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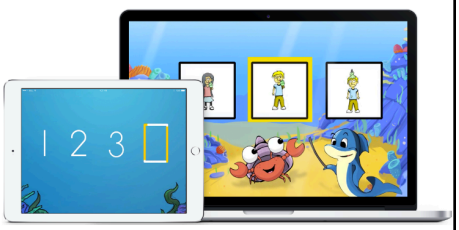
The Well Screening (cont.)

Reading: Blending sounds into words (decoding) with fluency and comprehension

Attention: Maintaining focus and regulating behavior to learn and store information

Speech Sound Production: Producing speech sounds appropriate for age and dialect

Motor Skills: Performing gross, fine, and visual motor movements appropriate for age



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The Well Screening

Domain	Subtest
Receptive Language	Subtest 1: Language Processing
Expressive Language	Subtest 4: Confrontational Naming Subtest 7: Language Formulation
Social Communication	Subtest 5: Pragmatics
Early Literacy	Subtest 3: Word Sound Play Subtest 8: Letter Recognition
Reading	Subtest 9: Real Word Reading Subtest 10: Nonsense Word Reading
Attention	Subtest 2: Number Sequences
Math Calculation	Subtest 6: Calculation
Speech Sound Production	Per report and supplemental testing
Supplemental	
Speech Sound Production Subtest	Downloadable answer form and video on web site
Motor Skills Checklist	Downloadable checklist on web site

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Demonstration of the Well Screening

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Benefits of Using the Well Screening

- Gives in-depth personalized results that pinpoint the child's strengths and weaknesses.
- Guides instruction for targeted areas that need strengthening.
- Engages the child in a light-hearted and fun manner.
- Delivers the screening the same way to every child, allowing for consistency and uniformity.
- Includes a website that directs users to language and learning information, links, activities, and educational games.

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Case Studies

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Andrew

Kindergarten Teacher Comments at K-Fall

- Starting to read
- Listens in class
- Gets along well with his classmates
- No Concerns

29

Andrew: K-Spring: Language and Learning within Normal Limits

Fall	Winter	Spring	DOMAINS	SUBTESTS	Fall (Scale Score: Mean=10; sd=3)	Winter	Spring
ON TRACK	STRENGTH TO CELEBRATE	STRENGTH TO CELEBRATE	Receptive Language	Language Processing	8	≥13	≥13
WEAKNESS TO BOLSTER	WEAKNESS TO BOLSTER	ON TRACK	Expressive Language	Confrontational Naming Language Formulation	≤7 ≥13	≤7 ≥13	10 12
ON TRACK	ON TRACK	STRENGTH TO CELEBRATE	Social Communication	Pragmatics	8	10	≥13
ON TRACK	ON TRACK	STRENGTH TO CELEBRATE	Early Literacy	Word Sound Play Letter Recognition	11 11	12 8	≥13 ≥13
ON TRACK	ON TRACK	ON TRACK	Reading	Real Word Reading Nonsense Word Reading	9 N/A	10 12	9 10
ON TRACK	STRENGTH TO CELEBRATE	STRENGTH TO CELEBRATE	Attention	Number Sequences	12	≥13	≥13
ON TRACK	ON TRACK	ON TRACK	Math Calculation	Calculation	11	9	9
ON TRACK	ON TRACK	ON TRACK	Articulation	Speech Sound Production	No issues		

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Max

Kindergarten Teacher Comments at K-Fall

- Enjoys story time
- Good attention
- Has a great imagination
- Gets along well with his classmates
- No Concerns

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Max: K-Spring: At Risk For Dyslexia

Fall	Winter	Spring	DOMAINS	SUBTESTS	Fall (Scale Score: Mean=10; sd=3)	Winter	Spring
ON TRACK	ON TRACK	STRENGTH TO CELEBRATE	Receptive Language	Language Processing	8	9	≥13
STRENGTH TO CELEBRATE	STRENGTH TO CELEBRATE	STRENGTH TO CELEBRATE	Expressive Language	Confrontational Naming Language Formulation	≥13 11	≥13 11	≥13 12
ON TRACK	ON TRACK	ON TRACK	Social Communication	Pragmatics	10	10	10
ON TRACK	WEAKNESS TO BOLSTER	WEAKNESS TO BOLSTER	Early Literacy	Word Sound Play Letter Recognition	9 10	≤7 8	≤7 8
NOT APPLICABLE	WEAKNESS TO BOLSTER	WEAKNESS TO BOLSTER	Reading	Real Word Reading Nonsense Word Reading	N/A N/A	≤7 N/A	10 ≤7
STRENGTH TO CELEBRATE	ON TRACK	ON TRACK	Attention	Number Sequences	≥13	10	8
STRENGTH TO CELEBRATE	STRENGTH TO CELEBRATE	ON TRACK	Math Calculation	Calculation	11	11	9
ON TRACK	ON TRACK	ON TRACK	Articulation	Speech Sound Production	No issues		

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Cindy

Kindergarten Teacher Reports at K-Fall

- Does not get to the point when talking
- Uses filler words (i.e., um, the thingy, you know, etc.)
- Does not know the names of letters or numbers
- Has trouble communicating with peers
- Does not always pay attention

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Cindy: K-Spring: At Risk for Language-Learning Disorder

Fall	Winter	Spring	DOMAINS	SUBTESTS	Fall (Scale Score: Mean=10; sd=3)	Winter	Spring
ON TRACK	ON TRACK	WEAKNESS TO BOLSTER	Receptive Language	Language Processing	8	10	≤7
WEAKNESS TO BOLSTER	WEAKNESS TO BOLSTER	WEAKNESS TO BOLSTER	Expressive Language	Confrontational Naming Language Formulation	≤7 ≥13	≤7 8	≤7 9
ON TRACK	ON TRACK	ON TRACK	Social Communication	Pragmatics	10	8	8
WEAKNESS TO BOLSTER	ON TRACK	ON TRACK	Early Literacy	Word Sound Play Letter Recognition	12 ≤7	11 ≤7	8 8
NOT APPLICABLE	WEAKNESS TO BOLSTER	WEAKNESS TO BOLSTER	Reading	Real Word Reading Nonsense Word Reading	N/A N/A	≤7 N/A	≤7 9
WEAKNESS TO BOLSTER	ON TRACK	ON TRACK	Attention	Number Sequences	≤7	8	9
WEAKNESS TO BOLSTER	WEAKNESS TO BOLSTER	ON TRACK	Math Calculation	Calculation	≤7	≤7	8
ON TRACK	ON TRACK	ON TRACK	Articulation	Speech Sound Production	No Issues		

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Anita

Kindergarten Teacher Reports at K-Fall

- Uses immature speech
- Is quiet
- Does not contribute during class discussion
- Mispronounces words with the /r/ sound

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Anita: K- Spring: At Risk for Speech-Language Disorder

Fall	Winter	Spring	DOMAINS	SUBTESTS	Fall (Scale Score: Mean=10; sd=3)	Winter	Spring
ON TRACK	WEAKNESS TO BOLSTER	ON TRACK	Receptive Language	Language Processing	8	≤7	10
WEAKNESS TO BOLSTER	WEAKNESS TO BOLSTER	WEAKNESS TO BOLSTER	Expressive Language	Confrontational Naming Language Formulation	≤7 ≤7	≤7 ≤7	≤7 9
WEAKNESS TO BOLSTER	ON TRACK	STRENGTH TO CELEBRATE	Social Communication	Pragmatics	≤7	10	≥13
ON TRACK	ON TRACK	ON TRACK	Early Literacy	Word Sound Play Letter Recognition	10 11	11 10	9 10
ON TRACK	ON TRACK	ON TRACK	Reading	Real Word Reading Nonsense Word Reading	12 11	11 8	8 8
ON TRACK	ON TRACK	ON TRACK	Attention	Number Sequences	9	12	9
ON TRACK	ON TRACK	ON TRACK	Math Calculation	Calculation	9	8	8
WEAKNESS TO BOLSTER	WEAKNESS TO BOLSTER	WEAKNESS TO BOLSTER	Articulation	Speech Sound Production	|r| distortion		

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Evie

Kindergarten Teacher Reports at K-Fall

- Does not pay attention
- Does not seem to understand class directions or rules
- Interferes with her classmates' play
- Does not use speech to communicate wants or needs
- Has trouble with group activities
- Uses immature speech when talking

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Evie: K-Spring: At Risk for Language, Learning, Attention, and Social Communication Issues

Fall	Winter	Spring	DOMAINS	SUBTESTS	Fall (Scale Score: Mean=10; sd=3)	Winter	Spring
Weakness to Bolster	Weakness to Bolster	Strength to Celebrate	Receptive Language	Language Processing	≤7	≤7	12
Weakness to Bolster	Weakness to Bolster	Weakness to Bolster	Expressive Language	Confrontational Naming Language Formulation	≥13 ≤7	12 ≤7	≥13 ≤7
Weakness to Bolster	Weakness to Bolster	Weakness to Bolster	Social Communication	Pragmatics	≤7	≤7	≤7
Weakness to Bolster	Weakness to Bolster	Weakness to Bolster	Early Literacy	Word Sound Play Letter Recognition	≤7 12	≤7 ≥13	≤7 10
On Track	Strength to Celebrate	On Track	Reading	Real Word Reading Nonsense Word Reading	11 N/A	≥13 10	≥13 9
Weakness to Bolster	Weakness to Bolster	Weakness to Bolster	Attention	Number Sequences	≤7	≤7	≤7
Weakness to Bolster	On Track	Strength to Celebrate	Math Calculation	Calculation	≤7	11	11
On Track	On Track	On Track	Articulation	Speech Sound Production	No issues		

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Christopher

Kindergarten Teacher Comments at K-Fall

- Speech is unintelligible
- Difficulty with rhyming
- Does not know letter sounds
- Below his classmates in all skills
- Gets along well with his peers
- Uses a lot of nonverbal gesturing
- His classmates help him with classroom activities even though they can't understand him

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Christopher: K-Spring: At Risk for Speech, Language, and Learning Difficulties (Including Dyslexia)

Fall	Winter	Spring	DOMAINS	SUBTESTS	Fall (Scale Score: Mean=10; sd=3)	Winter	Spring
Weakness to Bolster	Weakness to Bolster	Weakness to Bolster	Receptive Language	Language Processing	≤7	≤7	≤7
Weakness to Bolster	Weakness to Bolster	On Track	Expressive Language	Confrontational Naming Language Formulation	10 ≤7	≥13 ≤7	≥13 9
Strength to Celebrate	Strength to Celebrate	Strength to Celebrate	Social Communication	Pragmatics	≥13	≥13	≥13
On Track	Weakness to Bolster	Weakness to Bolster	Early Literacy	Word Sound Play Letter Recognition	9 12	≤7 ≥13	≤7 ≥13
On Track	Weakness to Bolster	On Track	Reading	Real Word Reading Nonsense Word Reading	9 N/A	≤7 N/A	8 9
Weakness to Bolster	On Track	Strength to Celebrate	Attention	Number Sequences	≤7	10	11
Weakness to Bolster	Weakness to Bolster	On Track	Math Calculation	Calculation	≤7	≤7	8
Weakness to Bolster	Weakness to Bolster	Weakness to Bolster	Articulation	Speech Sound Production	Multiple Errors		

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Educational and Clinical Relevance

- Because kindergarten students are "moving targets," a screener should be administered throughout the school year (fall, winter, and spring).
- This is especially true for at-risk children who are identified at the beginning of the school year.
- Some of the at-risk children make significant gains with more exposure and become typical learners.
- Other children are found to be atypical learners because of language-learning deficits.

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Educational and Clinical Relevance (cont.)

- On occasion, a child who presents as a typical learner at the beginning of the school year may not progress accordingly.
- These children often memorize the names of letters and sight words prior to entering kindergarten, but they have deficits in phonological awareness and/or retrieval skills, so reading and writing development stalls as the school year progresses.
- The Well Screening helps to differentiate the underlying predictors of early literacy acquisition.

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Educational and Clinical Relevance (cont.)

- Students who pass the screening in the fall are considered Tier 1 and receive classroom instruction emphasizing early literacy and language skills (continue monitoring).
- Students who do not pass the screening should be discussed by the team *(See Chapter 6 in the Well Screening Manual: Interpretation and Follow-Up)*.
  - Some of the students will be identified as Tier 2, needing targeted and focused small group instruction because of lack of exposure.
  - Other students will be referred for full evaluations and identified as Tier 3 needing intensive and individualized instruction because of a diagnosed language-learning disorder.

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Start Screening

The **Well Screening® Starter Kit** has everything you need to start screening!

- Examiner's Manual ebook
- 25 Screening Codes (+1 practice code)

https://bpub.fyi/Well-Screening

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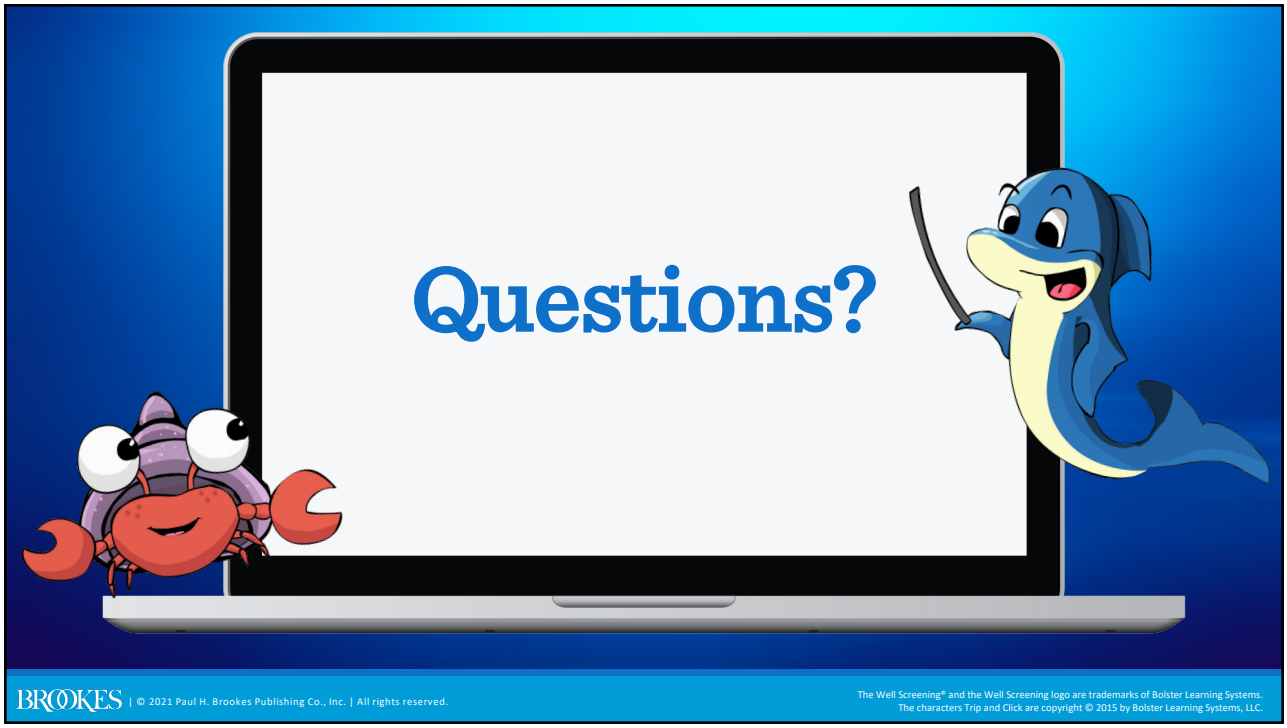

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References

- Adlof, S.M. (2020). Promoting reading achievement in children with developmental language disorders: What can we learn from research on specific language impairment and dyslexia? *Journal of Speech, Language, and Hearing Research*, 63*, 3277-3292.*
- Catts, H. W., Fey, M. E., Tomblin, J. B., & Zhang, X. (2002). A longitudinal investigation of reading outcomes in children with language impairments. *Journal of Speech and Hearing Research*, *45*, 1142–1147.
- Ekelman, B.L. & Lewis, B.A. (2019). Speech and Language Disorders. In M.L. Batshaw, N.J. Roizen, L. Pellegrino (Eds.), *Children with Disabilities 8th Edition*. Paul H. Brookes Publishing.
- Hebbeler, K. & Spiker, D., (2016). Supporting young children with disabilities. *The Future of Children*, *26*, 185-205.
- Hebbeler K., Spiker, D., Bailey, D., Scarborough, A., Malik, S., Simeonsson, R., Singer, M., & Nelson, L. (2007). *Early Intervention for Infants and Toddlers with Disabilities and their Families; Participants, Services, and Outcomes.* Final Report of the National Early Intervention Longitudinal Study (NEILS). Menlo Park, CA: SRI International.

46

References (cont.)

- International Dyslexia Association (2008), http://www.interdys.org
- Kamhi, A.G. & Catts, H.W. (2012). *Language and Reading Disabilities (third edition), Pearson New International Edition*. Pearson.
- Moats, L. C. (2020). *Speech to print: Language essentials for teachers* (3rd ed.). Paul H. Brookes Publishing.
- Mueller, K.L. & Tomblin, J.B. (2012). Examining the comorbidity of language disorders and ADHD. *Topics in Language Disorders, 32(3)*, 228-246.
- Norbury, C. F., Gooch, D., Wray, C., Baird, G., Charman, T., & Simonoff, E. (2016). The impact of nonverbal ability on prevalence and clinical presentation of language disorder: Evidence from a population study. *Journal of Child Psychology and Psychiatry*, *57*, 1247–1257.
- Owens, R. (2017). *Early Language Intervention for Infants, Toddlers, and preschoolers.* Pearson.
- Ozernov-Palchik, O., Norton, E.S., Sideridis, G., Beach, S.D., Wolf, M., Gabrieli, J.D.E., & Gaab, N. (2017). Longitudinal stability of pre-reading skill profiles of kindergarten children: implications for early screening and theories of reading. *Developmental Science*, *20*, 1-18.

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References (cont.)

- Ramey, S. L., & Ramey, C. T. (2006). Early educational interventions: Principles of effective and sustained benefits from targeted early education programs. In D. K. Dickinson & S. B. Neuman (Eds.), *Handbook of early literacy research* (Vol. 2). Guilford Press.
- Ramey, S. L., Ramey, C. T., & Lanzi, R. G. (2007). Early intervention. In J. W. Jacobson, J. A. Mulick, & J. Rojahn (Eds.), *Handbook of intellectual and developmental disabilities*. Springer.
- Shaywitz, S. (2003). *Overcoming Dyslexia.* Alfred A. Knopf.
- Tomblin, J. B., Records, N., Buckwalter, P., Zhang, X., Smith, E., & O'Brien, M. (1997). Prevalence of specific language impairment in kindergarten children. *Journal of Speech, Language, and Hearing Research*, *40,* 1245-1260.
- Torgesen, J.K. & Burgess, S.R. (1998). Consistency of reading-related phonological processes throughout early childhood: Evidence from longitudinal-correlational and instructional studies. In J.L. Metsala & L.C. Ehri (Eds.), *Word Recognition in Beginning Literacy*. Hillsdale, NJ: Erlbaum Associates.
- United States Census Bureau (2020), https://www.census.gov/content/dam/Census/library/publications/2020/demo/p20-584.pdf

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References (cont.)

- Weiler, B., Schuele, M., Feldman, J.I., & Krimm, H. (2018). A multiyear population-based study of kindergarten language screening failure rates using the Rice Wexler Test of Early Grammatical Impairment. *Language, Speech, and Hearing Services in Schools*, *49*, 248-259.
- Williams, P.G., executive committee member, AAP Council on Early Childhood and professor of pediatrics, University of Louisville, Ky.; Herman, E., M.A., clinical psychologist, department of psychiatry and psychology, Children's Hospital of Michigan, Detroit; Pediatrics, online (2019).

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