Integrating Evidence-Based Neuropsychological Intervention Services into an MTSS Model

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Assessment *for* Intervention

Using an MTSS model we gather and rely on data to inform our decisions. Using a neuropsychological approach to MTSS allows clinicians to conceptualize issues and intervene with children and teachers. Research shows that this type of plan is evidence-based and can be used to develop interventions at each tier within a neuropsychological-based system of support. All school neuropsychologists must have a working understanding of brain-behavioral relationships. This understanding combined with selecting an evidence-based interventions (EBIs) can be produce desirable outcomes (Traughber & D'Amato, 2005).

To meet the needs of a diverse population, children can receive educational support before they fail in the educational system. Thus, we are proposing a neuropsychologically-based multi-tiered system of support (NB-MTSS) to provide services and interventions to meet the diverse students' academic needs at increasing levels of intensity. Semrud-Clikeman (2005) highlighted that an NB-MTSS could provide educational and behavioral screening with valid assessment measures and ongoing monitoring if improvement has not been made. An NB-MTSS model can be used to help all students improve in all academic areas (Power & D'Amato, 2018)
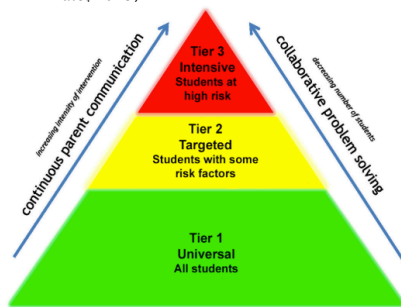
Tier I

Tier I: offering a specialized neuropsychological screening for early elementary students. This level of screening can occur within the typical classroom (e.g., phonemic awareness, vocabulary).

Phonemic Awareness	**DIBELS:** Initial sound fluency; phoneme segmentation fluency **AIMSweb:** Test of Early Literacy Assessments **IGDI:** Alliteration, Rhyming
Phonics	**DIBELS:** Letter-naming fluency, nonsense word fluency
Reading Fluency	**AIMSweb R-CBM** **DIBELS:** Oral Reading Fluency **Classroom words correct per minute** **Informal assessment of words read correct/per minute**

Tier II

Tier II: moves the responsibility of evaluations to be conducted by the special education teacher or school psychologist. Together these individuals work with the primary classroom teacher to collect information on the student's performance.

Phonemic Awareness	**CTOPP-2:** Elision; Blending Words **KTEA-3:** Nonsense Word Decoding **WIAT-III:** Pseudoword Decoding
Phonics	**WJ-IV A:** Letter-word identification **WIAT:** Word Reading, Pseudoword Decoding **WRAT-III:** Reading/Word Calling **GORT-IV**
Reading Fluency	**WJ-IV A:** Reading Fluency **WIAT-3:** Oral Reading Fluency **GORT-V** **Test of word reading efficiency** **Test of reading fluency**

Tier III

Tier III: students complete a wide-range neuropsychological evaluation, as well as additional evaluations from other school team members (e.g., speech, physical, and/or occupational therapy) as needed. At this tier, the school neuropsychologist administers a variety of standardized assessments.
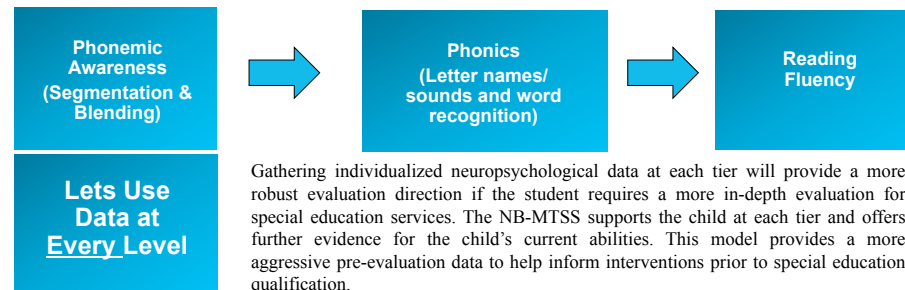
Phonemic Awareness	**WJ-IV Cog:** Sound blending **Halstead-Reitan:** Speech-sounds perception **NEPSY:** Phonological processing
Phonics	**WJ-IV Cog:** Word attack **TOWRE-2** **DAS-2:** Phonological Processing **NEPSY-2:** Phonological Processing

References

Power, E., & D'Amato, R. C. (2018). Should our future include the integration of evidence-based neuropsychological services into school settings? In D. P. Flanagan & E. M. McDonough (Eds.), Contemporary intellectual Assessment: Theories, tests, and issues (4th ed.; pp. 1017-1045). New York, NY: Guilford.

Semrud-Clikeman, M. (2005). Neuropsychological aspects for evaluating learning disabilities. Journal of Learning Disabilities, 38(6), 563-568.

Traughber, M. C. & D'Amato, R. C. (2005). Integrating evidence-based neuropsychological services into school settings: issues and challenges for the future.

Phonemic Awareness (Segmentation & Blending) → **Phonics (Letter names/ sounds and word recognition)** → **Reading Fluency**

Lets Use Data at Every Level

Gathering individualized neuropsychological data at each tier will provide a more robust evaluation direction if the student requires a more in-depth evaluation for special education services. The NB-MTSS supports the child at each tier and offers further evidence for the child's current abilities. This model provides a more aggressive pre-evaluation data to help inform interventions prior to special education qualification.

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