WAYNE RESA
Leading... Learning for All

Guidance for the Determination of Specific Learning Disabilities

Prepared by the Wayne County Committee for Specific Learning Disabilities

2009

Acknowledgements

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Guidance for the Determination of Specific Learning Disabilities

Wayne County Committee for Specific Learning Disabilities

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November, 2009

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Section 1

The Laws
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Specific Learning Disability (SLD)
Identification

"Childhood is a time for learning. A child who delays breaking the phonetic code will miss much of the reading practice that is essential to building fluency and vocabulary; as a consequence, he will fall further and further behind in acquiring comprehension skills and knowledge of the world around him. To see this happen to a child is sad, all the more because it is preventable."

-Sally Shaywitz, M.D.
Overcoming Dyslexia

1.1 The Laws

The laws and rules regarding the identification of students with specific learning disabilities have changed. The IDEA of 2004 created new options for the identification of students with specific learning disabilities. The most current definitions of Learning Disabilities follow:

Federal Definition of Specific Learning Disabilities

§ 300.309 Determining the existence of a specific learning disability.

(a) The group described in § 300.306 may determine that a child has a specific learning disability, as defined in § 300.8(c)(10), if—

(1) The child does not achieve adequately for the child's age or to meet State-approved grade-level standards in one or more of the following areas, when provided with learning experiences and instruction appropriate for the child's age or State-approved grade-level standards:

(i) Oral expression.
(ii) Listening comprehension.
(iii) Written expression.
(iv) Basic reading skill.
(v) Reading fluency skills.
(vi) Reading comprehension.
(vii) Mathematics calculation.
(viii) Mathematics problem solving.

(2)(i) The child does not make sufficient progress to meet age or State approved grade-level standards in one or more of the areas identified in paragraph (a)(1) of this section when using a process based on the child's response to scientific, research-based intervention; or

(ii) The child exhibits a pattern of strengths and weaknesses in performance, achievement, or both, relative to age, State-approved grade level standards, or intellectual development, that is determined by the group to be relevant to the identification of a specific learning disability, using appropriate assessments, consistent with §§ 300.304 and §§ 300.305; and

(3) The group determines that its findings under paragraphs (a)(1) and (2) result of—

(i) A visual, hearing, or motor disability;
(ii) Mental retardation;
(iii) Emotional disturbance;
(iv) Cultural factors;
(v) Environmental or economic disadvantage; or
(vi) Limited English proficiency.

(b) To ensure that underachievement in a child suspected of having a specific learning disability is not due to lack of appropriate instruction in reading or math, the group must consider, as part of the evaluation described in §§ 300.304 through § 300.306—

(1) Data that demonstrate that prior to, or as a part of, the referral process, the child was provided appropriate instruction in regular education settings, delivered by qualified personnel; and
(2) Data-based documentation of repeated assessments of achievement at reasonable intervals, reflecting formal assessment of student progress during instruction, which was provided to the child's parents.

The public agency must promptly request parental consent to evaluate the child to determine if the child needs special education and related services, and must adhere to the timeframes described in §§ 300.301 and § 300.303, unless extended by mutual written agreement of the child's parents and a group of qualified professionals, as described in § 300.306(a)(1)—
(1) If, prior to a referral, a child has not made adequate progress after an appropriate period of time when provided instruction, as described in paragraphs (b)(1) and (b)(2) of this section; and
(2) Whenever a child is referred for an evaluation.
(Authority: 20 U.S.C. 1221e–3; 1401(30); 1414(b)(6))

Michigan Administrative Rules and Clarification Memo

The state of Michigan revised the administrative rules regarding the definition of Specific Learning Disabilities in August, 2008. The rules were followed by a clarification memo:

MEMORANDUM

January 22, 2009

TO: Intermediate School District Directors of Special Education
FROM: Jacquelyn J. Thompson, Ph.D. Director
Office of Special Education and Early Intervention Services
SUBJECT: Specific Learning Disabilities – Clarification

DISSEMINATE TO LEAs AND PSAs

Michigan's Administrative Rule 340.1713, Specific Learning Disability Defined, Determination, was amended on September 11, 2008 (enclosed). A few components of the rule warrant clarification.

The Role of Severe Discrepancy
Rule 340.1713 of the Michigan Administrative Rules for Special Education (Rules) allows the use of three options for determining specific learning disability (SLD) eligibility. The rule allows a district to use severe discrepancy, but only as one part of a full and individual evaluation. Severe discrepancy may never be used alone to determine a student eligible as a student with a SLD.

Response to Scientific, Research-based Intervention Process

In determining eligibility under SLD, one of the options a school district may use is a process that is based on a student's response to scientific, research-based intervention. Depending on the local district's practice, this process may have a variety of names; e.g., Instructional Consultation Team, Response to Intervention, Michigan's Integrated Behavior and Learning Support Initiative. The Michigan Department of Education (MDE) does not mandate any specific scientific, research-based intervention process.

A pattern of strengths and weaknesses is not the same as severe discrepancy.

At § 300.309(a)(2)(ii), the Individuals with Disabilities Education Act regulations identify a pattern of strengths and weaknesses as an option in determining SLD eligibility. The Rules permit local districts to use this option. The MDE does **not** mandate any specific process to determine a pattern of strengths and weaknesses. Any determination of SLD requires a comprehensive evaluation according to the evaluation procedures in the federal regulations at § 300.301 – § 300.311, including those particular to a student suspected of having a SLD in § 300.307 – § 300.311.

Michigan Definition of Specific Learning Disabilities

R 340.1713 Specific learning disability defined; determination.
Rule 13. (1) "Specific learning disability" means a disorder in 1 or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Specific learning disability does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of cognitive impairment, of emotional impairment, of autism spectrum disorder, or of environmental, cultural, or economic disadvantage.
(2) In determining whether a student has a learning disability, the state shall:
(a) Not require the use of a severe discrepancy between intellectual ability and achievement.
(b) Permit the use of a process based on the student's response to scientific, research-based intervention.
(c) Permit the use of other alternative research-based procedures.
(3) A determination of learning disability shall be based upon a comprehensive evaluation by a multidisciplinary evaluation team, which shall include at least both of the following:
(a) The student's general education teacher or, if the student does not have a general education teacher, a general education teacher qualified to teach a student of his or her age or, for a student of less than school age, an individual qualified by the state educational agency to teach a student of his or her age.
(b) At least 1 person qualified to conduct individual diagnostic examinations of students, such as a school psychologist, an authorized provider of speech and language under R 340.1745(d), or a teacher consultant.

1.2 Changes in Specific Learning Disability (SLD) Identification

Subsequent to revisions in the Federal definition of Specific Learning Disability, the Michigan Department of Education amended Michigan's Administrative Rule 340.1713, Specific Learning Disability Defined Determination on September 11, 2008. As stated in a clarification memo dated January 22, 2009, the Office of Special Education and Early Intervention Services (OSE-EIS) allows "the use of three options for determining specific learning disability (SLD) eligibility. The rule allows a district to use severe discrepancy, but only as one part of a full and individual evaluation. Severe discrepancy may never be used **alone** to determine a student eligible as a student with a SLD". A second option in determining SLD eligibility includes "the option (that) a school district may use a process that is based on a student's response to scientific, research-based intervention". The MDE does **not** mandate any specific scientific, research-based intervention process. The memo also includes a description of a third option, which is to identify a "pattern of strengths and weaknesses in determining SLD eligibility". The Rules permit local districts to use this option. However, the MDE does **not** mandate any specific process to determine a pattern of strengths and weaknesses. Additionally, this memo asserts "any determination of SLD requires a full comprehensive evaluation according to the evaluation procedures in the federal regulations at § 300.301 – § 300.311".

Following the dissemination of this memo, the Directors of Special Education in Wayne County, in conjunction with Wayne RESA, requested guidance to create consistency in practice. Therefore, a committee was formed to assimilate the current information provided at the federal, state and local level, and to create guidance that would support districts in implementing these new standards for Wayne County.

Listed below are four issues with the use of "severe discrepancy models" that have led to new comprehensive and research based approaches to learning disability identification.

Issue #1: Discrepancy models fail to differentiate between children who have specific learning disability and those who have academic achievement problems related to poor instruction, lack of experience, or other confounding factors. For a thorough discussion of this important issue, see Fletcher et al., 1998.

Issue #2: The application of discrepancy models has been shown to discriminate against certain groups of students: students outside of "mainstream" culture and students who are in the upper and lower ranges of IQ. Due to psychometric problems, discrepancy approaches tend to under-identify children at the lower end of the IQ range and over-identify children in the upper end. This problem has been addressed by various formulas that correct for the regression to the mean that occurs when two correlated measures are used. However, using regression formulas does not address issues such as potential language and cultural bias in IQ tests, nor does it improve the classification function of a discrepancy model (Stuebing et al., 2002).

Issue #3: Discrepancy models do not effectively predict which students will benefit from or respond differentially to instruction. The research around this issue has examined both

progress and absolute outcomes for children with and without discrepancy, and has not supported the notion the two groups will respond differentially to instruction (Stanovich, 2005). Poor readers with discrepancies and poor readers without discrepancies perform similarly on skills considered to be important to the development of reading skills (Gresham, 2002).

Issue #4: The use of discrepancy models requires children to fail for a substantial period of time – usually years – before they are far enough behind to exhibit a discrepancy. In order for children to exhibit a discrepancy, two tests need to be administered – an IQ test, such as the Wechsler Intelligence Scale for Children, and an achievement test. Because of limitations of achievement and IQ testing, discrepancies often do not "appear" until late second, third, or even fourth grade.

The severe discrepancy approach to identifying learning disability was fraught with methodological problems that were considered to be problematic for parents and practitioners – so problematic, that by the late 1990's, the discrepancy approach was referred to as the "wait and fail" approach by federal officials (Lyons, 2002).

Considering these issues, and the movement towards implementing response to intervention procedures as an effort to insure high quality instruction delivered with fidelity, we are aware that critical markers have been identified as robust indicators of academic performance. Researchers have identified measures of phonological awareness and early literacy knowledge such as letter sound relationships as powerful early indicators of later reading performance. In addition, fluent reading of connected text is also highly correlated with growth in both word reading and comprehension. It also represents a meaningful way to screen and progress monitor in reading (Fuchs and Fuchs, 1998). Use of this approach provides a method of screening to identify students with potentially persistent academic problems, and assessing them further.

After extensive review of guidance from states across the nation, research on response-to-intervention, and review of validity research on models of specific learning disability, the committee established the following principles to guide the recommendations of this work.

Reasons Not Sufficient to Identify a Learning Disability

There are necessary and sufficient conditions for the identification of a learning disability. Listed below are conditions that may be regarded as necessary, but, in isolation are not sufficient to label a student as a person with a disability.

- Less than average intellectual ability is not sufficient reason or evidence to identify a student as learning disabled.
- Slow rate of learning/progress toward State standards and/or academic achievement below age expectancy is not sufficient evidence for the identification of a student as learning disabled.
- Low academic achievement is not a sufficient reason to identify a student as learning disabled.

- Psychometric documentation of a pattern of strengths and weaknesses is not sufficient evidence to identify a student as learning disabled without comprehensive evidence of the impact of the weaknesses in daily and classroom functioning.

Documentation/Measurement Requirements

No one method of data collection or testing is sufficient basis for the identification of a learning disability. Assessment data must be validated with anecdotal records, history, classroom performance measures, records/documentation of access and response to quality instruction, and psychometric measures of cognitive strengths and weaknesses.

The psychometric methodology for the analysis of cognitive strengths and weaknesses must be implemented using the cognitive and achievement components that were developed, in theory, standardization, and factorial analysis clustering of scores, to be used together. Cross battery analysis, if adopted by a local school district, must adhere to factorial analysis protocols and comply with decision rules recommended within this guidance.

Documentation of appropriate instruction in reading and math and student progress within instruction must be provided for every student. It is expected that every school has procedures in which students are provided with supplemental instruction to remediate performance below age or State standards. Under No Child Left Behind, all schools are accountable to make progress toward proficiency on State standards with every student. The school has a fundamental responsibility to provide quality research based instruction to all students. The Response to Intervention is a data-driven methodology for closing achievement gaps using direct measurement of specific skills before and during research-based supplemental instruction. Whether called "response to intervention" or other intervention process, a quality instructional program applies the principles of instructional intervention/supplement and maintains a system to record/document both the data on student progress and the type, nature, and fidelity of delivery of the supplemental instruction.

Response to Intervention, in combination with an analysis of Pattern of Strengths and Weaknesses, is important in differentiating learning disability subtypes, identifying instructional strategies, and calibrating decisions across districts.

Calibration of Identification Decisions across Wayne County

Within the Federal commentary on Pattern of Strengths and Weaknesses, the U.S. Department of Education does not require an assessment of cognitive or intellectual abilities to determine a specific learning disability. The Department allows the "…consideration of a pattern of strengths and weaknesses, or both, relative to intellectual development, if the evaluation group considers that information relevant to an identification of specific learning disability." The Wayne County Learning Disabilities Committee felt, very strongly, that Response to Intervention, in combination with an analysis of Pattern of Strengths and Weaknesses, is very important in differentiating learning disability subtypes, identifying instructional strategies, and

in developing a calibration of decisions within and across districts. The committee felt that standardized procedures for understanding the learning abilities of the individual would enhance and inform the identification of learning disability.

Unifying Construct of Learning Skills

As we abandon the severe discrepancy model and embrace new approaches to specific learning disability identification, the committee sought a model of learning ability that would elucidate understanding of the specific learning disability for parents and teachers. Specific learning disabilities do follow a developmental course and there are struggles for the individual student that must be addressed in instruction. One of the biggest challenges to identifying specific learning disability with any consistency is the absence of a unifying construct. Based on extensive review of validity evidence of cognitive and learning constructs, the committee is recommending a robust application of the Cattell-Horn-Carroll (CHC) theory. The CHC theory is measurable, norm referenced, validated and there are more than 25 years of educational research on the educational implications of the construct. It is essential for multi-disciplinary teams to learn the same constructs of learning abilities to inform instructional practices. For example, we know the impact of auditory discrimination skills and phonological awareness on basic reading and this information has informed schools to develop instructional interventions to directly address those deficits. We believe we will build a common understanding of learning abilities that are research-based, valid and measurable by appending the Pattern of Strength and Weakness analysis to the CHC construct of learning.

Reconciling Disparate Criteria of Specific Learning Disability

The change in criteria for the identification of specific learning disability will present challenges to professionals, parents, teachers, and administrators in developing new understandings of the criteria while striving to best meet the needs of students.

The severe discrepancy definition of specific learning disability is no longer appropriate. The practice will be immediately discontinued with initial evaluations.

There will be a pressure from outside influences to continue to apply past criteria or to accept clinical definitions of disability that are not relevant to schools. There will also be situations in which students were identified for services under the previous guidance and they are now due for a re-evaluation. The following guidance is offered to address these situations.

Guidance for Addressing Recommendations from Outside Reports

When presented with reports from outside agencies that pose a diagnosis of a specific learning disability, there are steps the team may consider to ensure that decisions of the school are consistent with legal requirements and educationally relevant. There may be situations in which the recommendations from outside reports may be clinically meaningful but not relevant to schools. Definitions of specific learning disability in clinical settings are in accordance with diagnostic criteria that adhere to medical models. Schools must adhere to definitions of learning disability from Federal and State rules. Educational criteria of disability require extensive documentation of classroom performance. It is entirely possible for an individual to have characteristics of a handicapping condition but not be eligible for special education because the student is able to benefit from instruction in general education without special education services, supports, modifications or programs.

Teams must consider the information and recommendations from the outside report. This does not mean that the team must accept all recommendations as directions for their actions. The team has the responsibility to review the information relative to State and Federal rules, County guidelines, local district procedures, and within the context of the multiple information sources that are integral to the determination of a specific learning disability. The team may take the following steps to address recommendations from outside agencies.

- Begin with a Review of Existing Education Data (REED).
- Review the information in the report.
- Seek information from existing school records and current classroom performance data.
- Review student progress toward State standards using state and local assessments.
- Obtain a report from the teacher on student performance.
- Request input from the parent.
- Determine the additional tests and evaluation components the team will need to complete the comprehensive assessment of the student.
- Conduct at least one classroom observation by a member of the team.
- Locate or collect repeated measures of student performance with results provided to parents.
- Apply County Guidance and local procedures to the analysis of all information.
- Answer the question, “Is the student able to benefit from instruction without special education?”.
- The multi-disciplinary team will then offer the appropriate recommendation as to whether or not the student is eligible for special education.
- The IEP team will determine the eligibility and the IEP team will determine the goals, modifications, supports, services, and programs that are most appropriate to meeting the needs of the student.

Guidance for Applying New Criteria in Re-Evaluations

To ensure compliance with the requirements of the Individual's with Disabilities Education Act (IDEA 2004), three-year re-evaluation teams must systematically review the implementation and appropriateness of the IEP and the student's progress in relationship to the goals and interventions established by the IEP.

Steps:
Districts will use the Review of Existing Education Data (REED) format to determine the need to conduct a comprehensive re-evaluation.

- If the student is demonstrating slow progress and requires extensive support from special education, then a re-evaluation may not be indicated, and must be documented on the REED.

- If a parent or team member is requesting evaluation to consider a change in eligibility, a re-evaluation consisting of a full and individual evaluation must be conducted.

- A re-evaluation IEP must be held within three (3) years of the initial or last re-determination IEP meeting, but more often if conditions warrant (i.e., at the request of the student's parent or teacher).

The team must work from the premise of "First, do no harm".

The team must always consider the student's ability to benefit from instruction without special education services in making re-determination decisions.

Application of Previous Criteria: The team will need to review the criteria under which the student was initially identified as a student with a specific learning disability. If, when the criteria are applied relative to present student performance, it appears to be most beneficial to the student to continue to apply the previous criteria, then the recommendation of the team must be to apply the previous criteria.

Application of New Criteria: If, the application of the new criteria, in combination with current performance data seems to provide a more relevant and appropriate schema for defining the student's ability to benefit from instruction and the student will not lose the benefits of a free appropriate public education by the change in criteria, then the team may choose to apply the new criteria.

Section 2

Wayne County
Process Model of
Specific Learning Disability
Eligibility
Determination

The purpose of the evaluation is to surround the student of concern with the best and most comprehensive information possible to make valid and appropriate recommendations as to the student's eligibility for special education and, more importantly, educationally relevant recommendations for instruction.

-Wayne County SLD Committee 2009

2.1 The Wayne County Process Model of Specific Learning Disability (SLD) Determination

The Wayne County model for the identification of Specific Learning Disability emphasizes the full and individual evaluation as a process of data collection that includes multiple methods of assessing student performance with input from parents, teachers, instructional specialists, and school psychologists. The purpose of the evaluation is to surround the student of concern with the best and most comprehensive information possible to make valid and appropriate recommendations as to the student's eligibility for special education and, more importantly, educationally relevant recommendations for instructional strategies, supports and services.

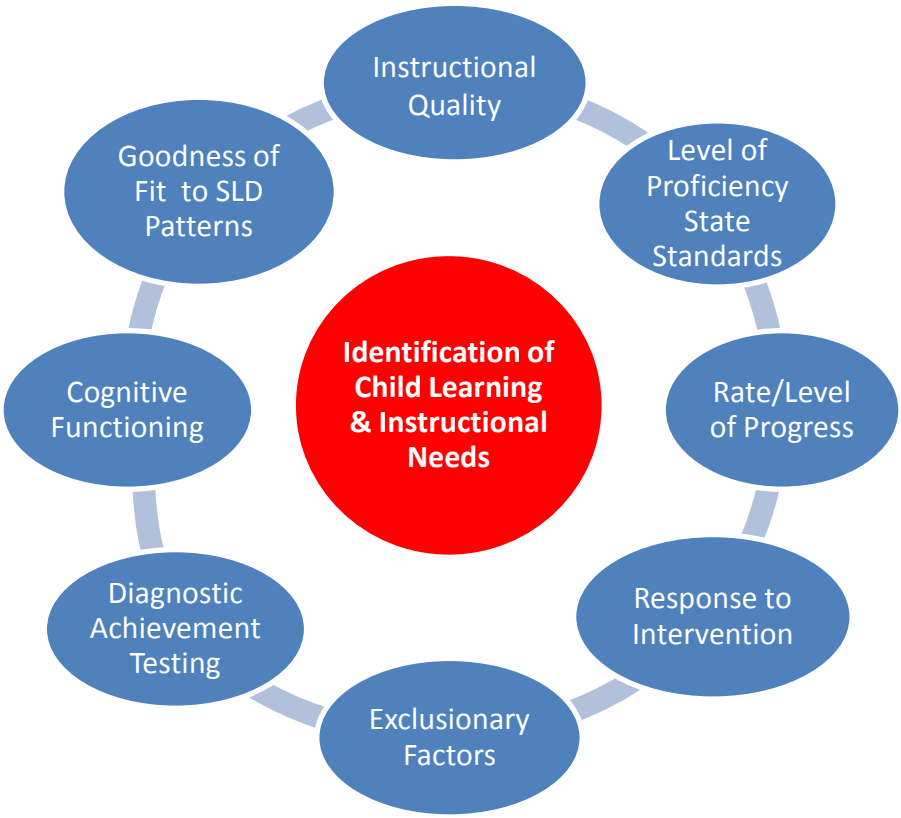


Figure 1. The Wayne County process model of specific learning disability eligibility.

Begin with Considerations of Instructional Quality: Federal law requires schools to ensure that students were provided with appropriate, evidence-based instruction that is delivered by a qualified teacher. The model begins with considerations as to the provision of quality instruction delivered by qualified teachers.

Level of Proficiency State Standards: Student progress with State standards is a fundamental consideration for instructional planning and for understanding student educational performance levels. Next, the team considers the student's level of proficiency with State standards, as measured by state assessments and/or district benchmarking assessments.

Rate/Level of Progress: Data representing repeated measures of student performance provided to parents at regular intervals are required to determine the probability of a specific learning disability. Repeated measures of student rate/level of progress may include progress monitoring data, benchmark assessments, classroom assessments, or progress reports that occur in a minimum of 4 – 6 week intervals.

Response to Intervention: Academic interventions, whether formalized in school procedures or through teacher efforts to provide supplementary instruction, must be documented with attention to the fidelity of the efforts to impact student achievement.

Exclusionary Factors: Before making attributions of disability within the student, the team must consider all other factors that could explain the performance patterns and the lack of student response to instruction. The team must consider the student's progress in the context of his/her opportunity, past experiences, sensory, health, language, culture, and developmental challenges.

Diagnostic Achievement Testing: The full and individual evaluation of the student must include normative measures to advance the understanding of why the student continues to have difficulty. The student must also be tested with an individually administered standardized achievement test to validate the samples of classroom assessment data with normative data.

Cognitive Testing: Before applying a categorical label to a student, the study of abilities must include testing of intelligence skills to identify patterns of strength and weakness that may further elucidate understanding of the student's learning difficulties.

Goodness of Fit to Specific Learning Disability Patterns: The test data are then analyzed relative to research-based clinical profiles of learning disability to determine a goodness of fit with existing models of learning disability. The team considers the relationships between areas of strength and area of deficit as they relate to our most current understanding of specific learning disability.

Lead Back to Quality Instructional Practice: The assessment must then lead to the development of educationally relevant recommendations for the student, whether determined eligible as a student with a specific learning disability or not. The evaluation must lead to appropriate recommendations as to the best plan for instruction. Recommendations should not be limited to special education supports and programs but may include such recommendations as classroom accommodations or continued participation in response to intervention targeted small group instruction.

Section 3

Quality Instruction

You can either fight assessment or embrace it. However, you cannot be a high-performance school without embracing assessment.

-Dave Montague, Principal
Washington Elementary
Kennewick, WA

3.1 Quality Instruction

One of the unique features to the new definition of learning disability is the requirement for teams to ensure that the underachievement is not due to a lack of appropriate instruction in reading or math. To meet this assurance, the team must consider:

> (1) Data that demonstrate that prior to, or as a part of, the referral process, the child was provided appropriate instruction in regular education settings, delivered by qualified personnel; and
> (2) Data-based documentation of repeated assessments of achievement at reasonable intervals, reflecting formal assessment of student progress during instruction, which was provided to the child's parents.

Appropriate Instruction in Regular Education Settings Delivered by Qualified Personnel

Research has shown that the majority of students can successfully learn in the general education classroom environment when the curriculum is delivered through high quality, scientific, research-based instruction. Combining core instruction with effective interventions is key to achieving student success.

All students are engaged in challenging and purposeful learning through the *general education curriculum.* In Michigan, the Michigan Curriculum Framework articulates a vision for all students by describing the knowledge and abilities needed to be successful in today's society.

Michigan's vision for K-12 education states:

> *Michigan's K-12 education will ensure that all students will develop their potential in order to lead productive and satisfying lives. All students will engage in challenging and purposeful learning that blends their experiences with content knowledge and real-world applications in preparation for their adult roles, which include becoming:*
>
> - *Literate individuals*
> - *Healthy and fit people*
> - *Responsible family members*
> - *Productive workers*
> - *Involved citizens*
> - *Self-directed, lifelong learners*

The Michigan Curriculum Framework is organized into standards and benchmarks. Each school district adopts a local curriculum that is aligned to the Michigan Curriculum Framework.

Curriculum refers to <u>what</u> is *taught.* It is the content that teachers teach and what students are expected to learn. This domain includes content arrangement and pace of steps leading to the

stated outcomes of study. The skills and information that are the content focus are assessed and measured.

Before instruction can be aligned with student needs, an appropriate curriculum that has been carefully selected should be in place. To assure curriculum alignment, the school or school district needs to:

- Make sure that the curriculum is aligned and matches appropriate state and district standards and benchmarks.
- Be certain that core components are introduced and reinforced at appropriate levels within the curriculum.
- See that the curriculum is taught consistently in all of the classrooms.

Instruction is <u>how</u> curriculum is taught. Instruction includes the science and the art of teaching. Effective instructional practices focus on teaching skills in a specific order and within specific time periods. Using research-based methodologies is the science of teaching. Finding ways to motivate and engage students in active, purposeful learning is the art of teaching. This domain includes the selection and use of materials that enables both the science and art of teaching to occur.

Assessment is essential to determine if students have acquired the content knowledge and achieved the stated outcome. The data from ongoing assessments drive instructional practices.

Instruction should be examined for effectiveness starting with the whole group. Some guiding questions are:

- Have the research-based practices been shown to increase student performance?
- Have effective practices been implemented with fidelity in ways that students will benefit?
- Do materials have documented efficacy?
- Has a sufficient amount of instructional time been allotted for curriculum implementation?
- Is instruction tailored to meet students' current levels of knowledge?
- Is instruction organized so that pre-requisite skills are taught sequentially?

There is only one curriculum-the general education curriculum. All students, including students with special needs, will access the general education curriculum with varying degrees of support within the Response to Intervention framework.

The term "qualified personnel' refers to the definition of "highly qualified personnel "from the No Child Left Behind legislation of 2001. The teacher is college educated, certified by the state of Michigan, and has demonstrated competencies in the core content areas of instruction.

Data demonstrating that the student was provided with appropriate instruction in regular education settings, delivered by qualified personnel would reside in existence of the above listed indicators of effectiveness as documented in school improvement planning and the district model for the implementation of Response to Intervention.

Documentation of Repeated Assessments of Achievement at Reasonable Intervals

Data-based documentation of repeated assessments may include response to intervention progress monitoring results, in-class tests based on state standards, benchmark assessment, criterion-referenced measures or other regularly administered assessments.

Data from repeated assessments used in the eligibility process should typically have been administered at evenly-spaced intervals over a reasonable period of time. A reasonable period of time may typically fall within a 9 to 12 week period. Schools are not limited to such a time frame and should follow the requirements of the particular instruction program or assessment process in use by the district.

Classroom Assessments and Progress Monitoring Data

Student data is crucial in order to

- Make accurate decisions about the effectiveness of general and remedial education instruction and interventions;
- Undertake early identification/intervention with academic and behavioral problems;
- Prevent unnecessary and excessive identification of students with disabilities;
- Make decisions about eligibility for special programs, including special education services;
- Determine individual education programs and deliver and evaluate special education services. (NASDE Blueprints for Schools, 2008)

Screening Assessments can be given to all students in the fall, winter, and spring. The purpose of the screening is to identify students who might be at risk for academic failure. Local school norms are how a specific school performs on the universal screening data. Schools should look at their local norms in relation to the district and state or national norms and then determine a rate of increase.

Diagnostic Assessments can be administered to those students found at-risk to further identify the specific areas of weakness.

Progress Monitoring is a scientifically based practice that is used to assess student's academic and/or behavior performance and evaluate the effectiveness of instruction.

To implement progress monitoring, the student's current levels of performance are determined and goals are identified for learning that will take place over time. The student's academic performance is measured on a regular basis (weekly or monthly, depending on the tier of intervention). Progress toward meeting the student's goals is measured by comparing expected and actual rates of learning. Based on these measurements, teaching is adjusted as needed. Thus, the student's progression of achievement is monitored and instructional techniques are adjusted to meet the individual students learning needs.

When implementing progress monitoring on a school level, it is important that teachers understand the purpose. The purpose of progress monitoring is not to gather more data, but to gather data to make instructional decisions.

Progress monitoring can be implemented with individual students or an entire class. Progress monitoring data should be more specific and administered more often as students are assigned to more specialized instructional interventions.

See the Wayne RESA Field Guides to Response to Intervention for more information on progress monitoring and curriculum based measurement. These materials include information on curriculum based measurement and assessment considerations.

In new conceptions of learning disability identification practices, data are collected over time to sample student rate of learning and performance relative to peers. Learning patterns, as revealed in these multiple assessments inform the group as to the student's responses to instruction. Evaluation practices move from being an event to a process for improving the context of learning for the individual student.

The following figure shows how interventions for students may vary based on student performance at different points in time. Student placement into and out of the tiers of intervention should be fluid and responsive to the data probes.

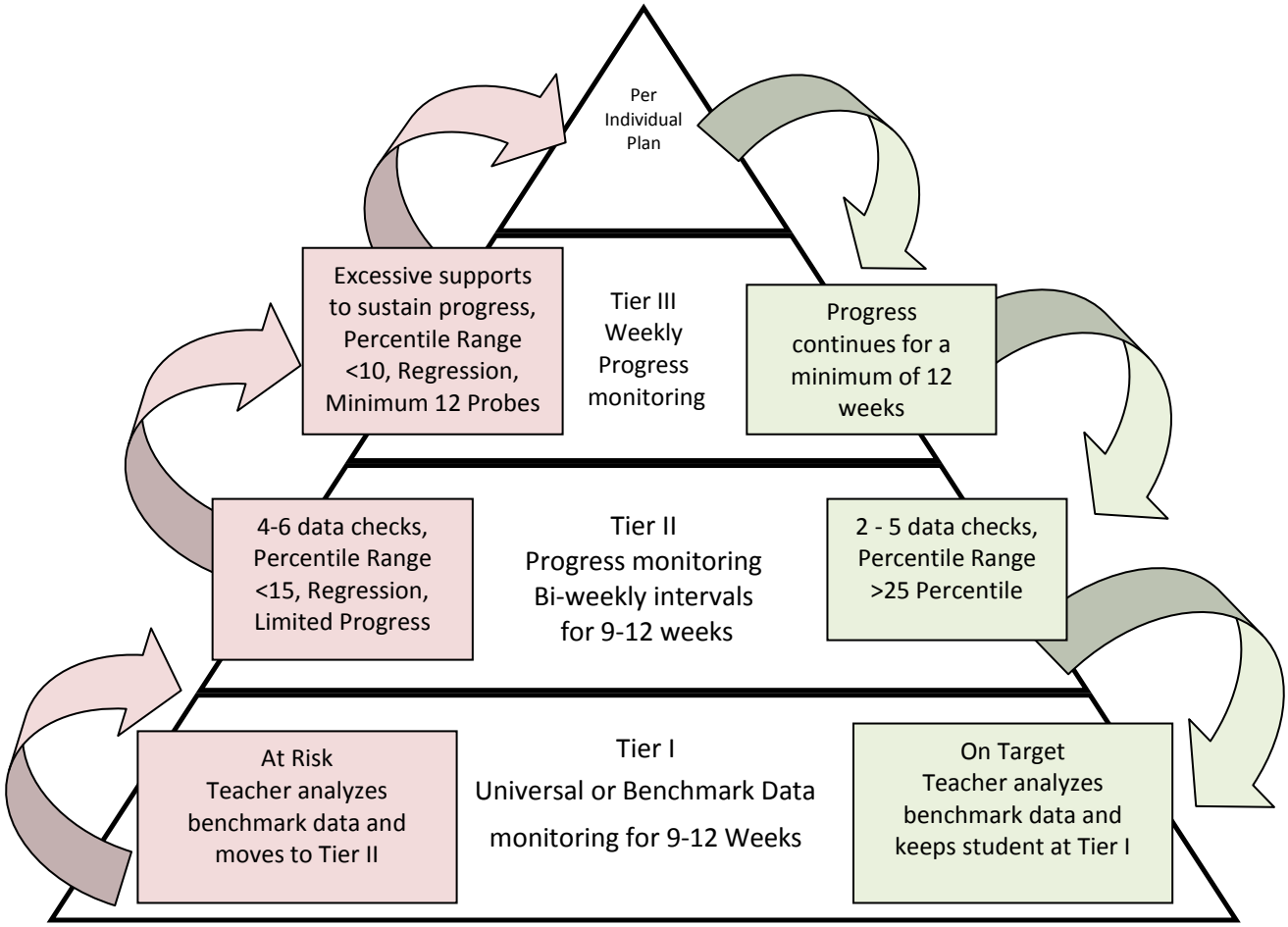


Figure 2. Using data to make intervention decisions for students.

A well-designed RtI framework provides a continuum of academic and behavioral supports for all students. Appropriate instruction/ interventions are matched to a student's needs. The level of service is adjusted as a student's needs change. The movement between tiers is fluid and flexible. A student should not remain at one tier for an indefinite period of time. Parents are informed about their child's progress and decisions to have the student move or remain at a tier are based on the student's performance data.

The sample forms that follow may be used to summarize and report student performance data in accordance with requirements to review student progress relative to age/state standards, to monitor progress, and to collect repeated measures of performance that are provided to parents at reasonable intervals.

Report of Repeated Measures of Student Progress
DISTRICT

Student: _____ Date: _____

School: _____ Teacher: _____ Grade: _____

Assessments Used:

Reading Skill	Target Score/Level			Student Score			Other Progress Checks											
	Fall	Winter	Spring	Fall	Winter	Spring	1	2	3	4	5	6	7	8	9	10	11	12
☐ Oral Language																		
☐ Phonemic Awareness																		
☐ Phonics																		
☐ Fluency																		
☐ Comprehension																		
☐ Vocabulary																		
☐ Writing																		

Assessments Used:

Math Skill	Target Score/Level			Student Score			Other Progress Checks											
	Fall	Winter	Spring	Fall	Winter	Spring	1	2	3	4	5	6	7	8	9	10	11	12
☐ Number Concepts																		
☐ Number Facts																		
☐ Time																		
☐ Geometry																		
☐ Money																		

Assessments Used:

Writing Skill	Target Score/Level			Student Score			Other Progress Checks											
	Fall	Winter	Spring	Fall	Winter	Spring	1	2	3	4	5	6	7	8	9	10	11	12
☐ Organization																		
☐ Vocabulary																		
☐ Details																		
☐ Ideas																		
☐ Grammar																		

Comments and Suggestions:

☐ I would like to learn more about my child's progress and what we may do to help him/her in school.

☐ I received this information about my child's progress in school.

Parent/Guardian Signature: _____ Date: _____

Student Progress Monitoring Profile

School: _____ Teacher: _____ Room: _____ Grade: _____ Year: _____

Student Name: _____ I.D.# _____ D.O.B. _____ Age: _____

Assessment	Date/Score	Date/Score	Date/Score	COMMENTS / Other Test Information

LANGUAGE ARTS ASSESSMENTS

WEAK AREA(S)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Status Met or Not Met	Comment(s) / Measurement Used
☐ Oral Language														
☐ Phonemic Awareness														
☐ Phonics														
☐ Fluency														
☐ Comprehension														
☐ Vocabulary														
☐ Writing														

MATH ASSESSMENTS

WEAK AREA(S)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Status Met or Not Met	Comment(s) / Measurement Used
☐ Number Concepts														
☐ Number Facts														
☐ Time														
☐ Geometry														
☐ Money														
☐ Other														

Review of Performance on Michigan State Standards

Date _____ Student _____ School _____ Grade _____

Directions: Summarize State Assessment Data. Check or circle all that apply and answer the questions.				
	Reading	**Writing**	**ELA**	**Math**
Assessment	☐ MEAP ☐ MEAP-Access ☐ MI Access ☐ MME ☐ Accommodations	☐ MEAP ☐ MEAP-Access ☐ MI Access ☐ MME ☐ Accommodations	☐ MEAP ☐ MEAP-Access ☐ MI Access ☐ MME ☐ Accommodations	☐ MEAP ☐ MEAP-Access ☐ MI Access ☐ MME ☐ Accommodations
Proficiency Level Year: Grade:	Circle: 1 2 3 4	Circle: 1 2 3 4	Circle: 1 2 3 4	Circle: 1 2 3 4
Assessment	☐ MEAP ☐ MEAP-Access ☐ MI Access ☐ MME ☐ Accommodations	☐ MEAP ☐ MEAP-Access ☐ MI Access ☐ MME ☐ Accommodations	☐ MEAP ☐ MEAP-Access ☐ MI Access ☐ MME ☐ Accommodations	☐ MEAP ☐ MEAP-Access ☐ MI Access ☐ MME ☐ Accommodations
Proficiency Level Year: Grade:	Circle: 1 2 3 4	Circle: 1 2 3 4	Circle: 1 2 3 4	Circle: 1 2 3 4
Progress	☐ Significant Improvement ☐ Improvement ☐ No Change ☐ Decline ☐ Significant Decline	☐ Significant Improvement ☐ Improvement ☐ No Change ☐ Decline ☐ Significant Decline	☐ Significant Improvement ☐ Improvement ☐ No Change ☐ Decline ☐ Significant Decline	☐ Significant Improvement ☐ Improvement ☐ No Change ☐ Decline ☐ Significant Decline
Does the student meet State Standards?				

☐ Yes The team has determined that the student was provided instruction appropriate for the grade level standards.

☐ If no, explain:

Review of Performance on Michigan Age Standards Using the Battelle Developmental Inventory

Date _____ Student _____ School _____ Date of Birth _____ Age _____

Directions: Summarize assessment data based on the Battelle Developmental Inventory. Fill in the correct information and review the questions below.

DOMAIN	Adaptive		Personal Social		Communication		Motor		Cognitive	
	SubDomain	Score	SubDomain	Score	SubDomain	Score	SubDomain	Score	SubDomain	Score
Sub-Domain	Self-Care		Adult Interaction		Receptive Communication		Gross Motor		Attention and Memory	
	Personal Responsibility		Peer Interaction		Expressive Communication		Fine Motor		Reasoning and Academic Skills	
			Self-Concept and Social Role				Perceptual Motor		Perception and Concepts	
Total	Score: Percentile: Age:									
Notes:										

Ages: Birth through 7 years, 11 months. The Battelle Developmental Inventory was selected by the State of Michigan for use in evaluating young children.

☐ Yes The team has determined that the student was provided instruction appropriate for the developmental age standards.

☐ If no, explain:

**Note: Schools may choose to use other State approved measures for young children, such as the Brigance, Carolina, AEP Test, Creative Curriculum Development Checklist, or LAP-3.*

Section 4

Response to Intervention (RtI)

…a school may use a process to determine if a child responds to scientific, research-based intervention as part of the evaluation procedures…

-IDEA 2004

4.1 Response to Intervention (RtI)

Michigan's Rule on Response to Scientific, Research-based Intervention Process
In determining eligibility under Specific Learning Disability (SLD), one of the options a school district may use is a process that is based on a student's response to scientific, research-based intervention. Depending on the local district's practice, this process may have a variety of names; e.g., Instructional Consultation Team, Response to Intervention, Michigan's Integrated Behavior and Learning Support Initiative, etc. The Michigan Department of Education (MDE) does not mandate any specific scientific, research-based intervention process. Michigan's Administrative Rule 340.1713, Specific Learning Disability Defined, Determination, was amended on September 11, 2008.

The Response to Intervention (RtI) Framework

The National Research Center on Learning Disabilities (NRCLD, 2006) defines Response to Intervention (RtI) as:

> *"…an assessment and intervention process for systematically monitoring student progress and making decisions about the need for instructional modifications or increasingly intensified services using progress monitoring data."*

RtI is an **instructional framework** that promotes a well-integrated system connecting general, special, gifted and remedial education in providing high-quality, standards based instruction and intervention that is matched to students' academic, social-emotional, and behavioral needs. This framework focuses on continuous improvement by using learning rate over time and level of performance to make important educational decisions.

RtI serves two primary purposes. The first purpose is to improve the educational outcome for each and every child through a multi-tiered, data driven process that utilizes a structured problem-solving method. The second purpose is to establish a process to assist in the identification of students with a specific learning disability. For RtI to be successful, both processes need to be implemented with fidelity.

Implementing an RtI framework provides a continuum of school-wide support. Its fundamental principles are that core instruction is provided with fidelity, student progress is monitored frequently, students' responsiveness to intervention is evaluated, and instruction is adapted as needed (National Association of State Directors of Special Education, 2005).

Since student populations and needs vary, it is expected that no two school districts or even school buildings will have a local implementation plan within the tiers that looks precisely the same. This continuum of school-wide support allows each school to organize instructional

delivery, optimize resources, and use a systematic approach to provide appropriate academic and behavioral supports.

RtI is **not** a student placement model, a location, a classroom, a class/course or a teacher. It is an integrated service delivery approach for all students and should be applied to decisions in general, remedial and special education.

The majority of students, 80-90%, will be successful with a Tier I core, standards based learning environment that provides scientific, research-based instruction. Approximately 10-15% of students will require a Tier II strategic, needs-based learning environment where scientific, research-based interventions are provided *in addition* to the core instruction. Approximately 5-10% of students will require a Tier III-intensive, needs-based learning environment where scientific, research-based interventions are provided *in addition* to the core instruction. At Tier IV, students who require a full and individual evaluation for special education or a Section 504 plan will need a learning environment that provides them with specialized interventions *in addition* to the core instruction.

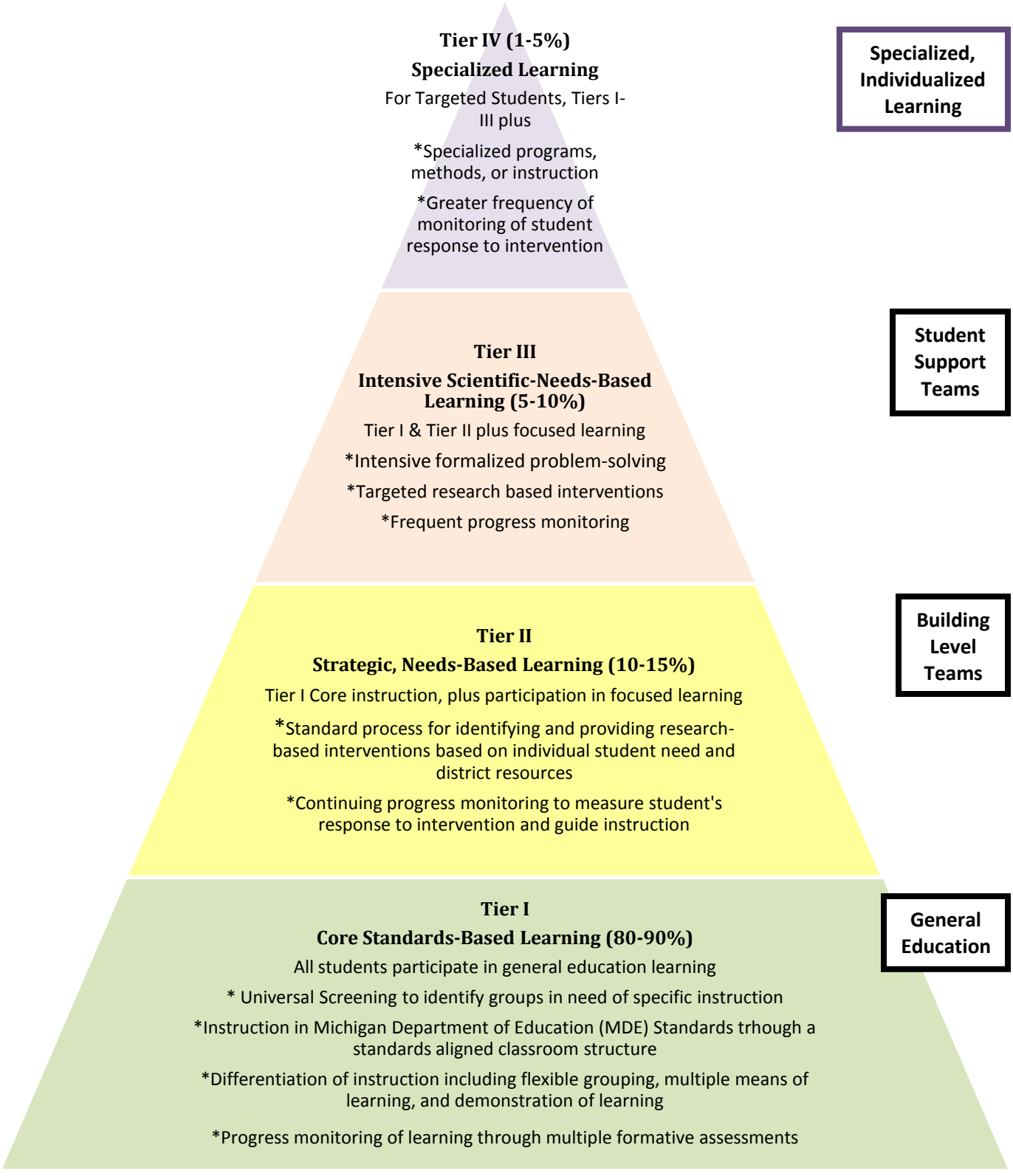


Figure 3. The four tier model of Response to Intervention.

Tier I: Core Standards-Based Learning

The focus of Tier I is the delivery of scientific, research-based core curriculum instruction and behavioral supports in general education to meet the needs of all students. Instructional decisions are based on data obtained from the following:

Table 1. Tier I Features and Implementation Considerations

Tier I Features	Considerations
Tier I Implementation and Monitoring Plan	▪ The district develops its Tier I screening schedule and implementation plan, and then embeds it into the overall school/district improvement plan ▪ Universal benchmark screening should be scheduled 3 times a year
Instruction & Universal Interventions	▪ Daily direct instruction of core for 60-90 minutes ▪ Universal interventions applied as necessary (+30 minutes) ▪ Explicit instruction to support social skills and behavior
Provider(s)	▪ Appropriately certified classroom teacher ▪ Universal interventions may also be provided by a supervised highly qualified support staff and/or specialist. This might include bilingual, Title I, or other staff as determined by the district/school
Group Size(s)	▪ Whole-group and small-group instruction ▪ Small groups may vary in size as determined by the provider and instructional needs
Frequency of Universal Interventions	▪ Determined by the school, grade level, or teacher ▪ When providing extra time over core, it is recommended that 4-5 sessions be held each week for a minimum of 30 minutes
Duration of Universal Interventions	▪ Core program is ongoing throughout the year ▪ Interventions in Tier I are fluid, determined by student response and last 9 – 12 weeks, or at reasonable intervals established by the district
Progress Monitoring Tools	▪ Universal benchmark screenings ▪ Yearly standards-based assessment ▪ Student work samples ▪ Curriculum-based measures ▪ Student behavior data

Tier I Features	Considerations
Frequency of Progress Monitoring	▪ Universal benchmark screening should take place 3-4 times each year ▪ Students who score at or below the 25th percentile on universal benchmark screening should be monitored at least monthly ▪ Students receiving universal interventions may need more frequent monitoring as determined by school ▪ Districts may establish local norms
Decision Rules: Determining Movement to More or Less Specialized Instruction	▪ The district decides what determines mastery, satisfactory growth, or the need for more intense intervention/remediation, regrouping students, and parent involvement ▪ It is recommended that requests for support for students who consistently score in the lowest 25th percentile on progress monitoring probes be made only after universal interventions are tried for a minimum of 9 - 12 weeks ▪ Requests for support for students with behavioral concerns are based on discipline data
Lack of Positive Response	▪ The teacher will use classroom data to determine if the student's lack of response to Tier I instruction and intervention warrants recommendation for Tier II supplementary interventions
Service Target	▪ Eighty percent (80%) of a school's students should be able to be served through Tier I ▪ If this is not the case, the core program and practices and/or behavioral systems need to be evaluated
Professional Development	▪ Differentiated instruction ▪ Classroom assessment ▪ Data analysis ▪ Data-based decision-making ▪ Delivery of scientifically based instructional practices ▪ Delivery of district's core program/instructional materials ▪ Student and classroom management ▪ Teaching and interventions for culturally different learners

Tier II – Strategic Level Needs-Based Learning

The focus of Tier II is to provide targeted interventions for students who are not achieving the desired standards through the core curriculum and who did not improve with Tier I instruction and universal interventions. A district may choose to use grade level teams for Student Support Teams to make Tier II recommendations. When using grade level teams, data are reviewed and the student is provided with direct supplemental instruction, typically in small group configurations. If using a Student Support Team (SST) at Tier II, the team functions to gather performance data about a student, hypothesizes a possible cause for the problem, and designs an Individualized Intervention Plan or Behavioral Intervention Plan (BIP), if necessary. Tier II provides for more frequent progress monitoring allowing instructional adjustments for the student of concern. Parents are informed.

Table 2. Tier II Features and Implementation Considerations

Tier II Features	Considerations
Implementation and Monitoring plan	▪ The school establishes its own Student Support Team (SST) as outlined in the school district's local implementation plan ▪ Building administrator assesses SST implementation and fidelity
Instruction & Interventions	▪ Possible re-teaching of core program/social skills ▪ Targeted interventions developed as a part of the student's documented Intervention Plan or Behavioral Intervention Plan (BIP)
Provider(s)	▪ Highly qualified classroom teacher and/or intervention specialists as documented in the Intervention Plan
Group Size	▪ Small group instruction in groups of 3 to 5
Frequency and Intensity of Interventions	▪ Determined by the written small group or individual plan ▪ Provided in addition to core instruction ▪ Instruction provided for a minimum of thirty (30) minutes 4-5 times each week
Duration of Intervention	▪ Interventions should be provided for 9-12 weeks or as established by local district policy ▪ Intervention cycles may be shortened or repeated as determined by the student's progress toward goals
Progress Monitoring Tools	▪ Student work samples ▪ Curriculum-based measures ▪ Probes of specific skills ▪ Student behavior data

Tier II Features	Considerations
Frequency of Progress Monitoring	▪ In addition to the short-cycle assessment schedule, the team determines more frequent progress monitoring. ▪ Bi-weekly monitoring is recommended.
Decision Rules	▪ Based on 4-9 data points administered bi-weekly ▪ Tier III if performance is <15th percentile or <75/90% RPI or proficiency of peers ▪ Need for another cycle of interventions or adjusted interventions in Tier II based on data patterns ▪ Tier I if performance is >25th percentile or >75% benchmark proficiency and learning is reinforced
Upon Mastery	▪ Student may: ▪ Continue with the Intervention Plan or BIP, or ▪ Be exited and returned to Tier I instruction/programs when performance can be maintained with universal interventions
Lack of Positive Response	▪ The team may determine if student's lack of response to Tier II interventions warrants a need for Tier III intensive interventions ▪ Note: Under the IDEA, parents may ask the school to consider a request for an evaluation at any time and the request is not conditioned upon failure or having to advance through the tiers
Service Target	▪ No more than 10-15% of a school's students can be effectively served at Tier II without compromising the school's delivery infrastructure ▪ High rates of students identified for Tier II interventions and/or retention recommendations suggest that the Tier I core program and practices need to be evaluated
Professional Development	▪ Data analysis ▪ Delivery of scientifically based interventions and instructional practices ▪ Delivery of district's core program/supplemental instructional materials ▪ Teaching and interventions for culturally different learners ▪ Student Support Team procedure ▪ Functional behavioral assessment (FBA) ▪ Behavioral interventions

Tier III – Intensive Needs-Based Learning

The focus of Tier III is to provide individualized intensive support to those students who are performing significantly below standards and who have not responded to quality interventions provided by Tiers I and II. Problem solving at this stage is more in depth and intensive and usually requires gathering and analyzing additional information about the student including his/her performance strengths and weaknesses and background information. Tier III is designed to accelerate a student's rate of learning by increasing the duration of individualized interventions.

Table 3. Tier III Features and Implementation Considerations

Tier III Features	Considerations
Implementation and Monitoring Plan	▪ The student's intervention plan will be reviewed and revised by the Student Support Team (SST) ▪ Building administrator assesses SST implementation and fidelity
Instruction & Interventions	▪ Possible replacement or re-teaching of core program/social skills ▪ Intensive interventions provided as a part of the student's documented SST intervention plan or Behavioral Intervention Plan (BIP).
Provider(s)	▪ Highly qualified classroom teacher and/or intervention specialists as determined by the SST and documented in the SST plan
Group Size	▪ Individual instruction or in groups of 2 to 3 students
Frequency and Intensity of Interventions	▪ Determined by the written SST intervention plan ▪ Provided in addition to core instruction ▪ Instruction provided for a minimum of 2 thirty (30) minute sessions per day 4-5 days each week
Duration of Intervention	▪ Interventions should be provided for 9-12 weeks ▪ Intervention cycles may be shortened or repeated as determined by the SST and the student's progress toward goals
Progress Monitoring Tools	▪ Probes of specific skills ▪ Student work samples ▪ Curriculum-based measures ▪ Student behavior data ▪ Counts of student behaviors
Frequency of Progress Monitoring	Chart progress at a minimum of one time each week.

Tier III Features	Considerations
Decision Rules	▪ Based on 12 or more probes or data points ▪ Progress to Tier IV based on explicit criteria ▪ The need for another cycle of interventions based on patterns ▪ The need for a referral for a Section 504 determination or a Special Education evaluation based on probes combined with other information
Upon Mastery	▪ Provide interventions at appropriate Tier with a plan of monitoring and instruction ▪ The student is returned to Tier I instruction/programs when performance can be maintained with universal interventions
Lack of Positive Response	▪ SST may determine if student's lack of response to Tier III warrants a recommendation of a Review of Existing Education Data (REED) to consider possible special education evaluation ▪ Note: Under the IDEA, parents may ask the school to consider a request for an evaluation at any time and the request is not conditioned upon time in interventions
Service Target	▪ National models suggest that no more than 1-5% of the student population at a school need this level of support. ▪ If more than 5% of the school population is referred to Tier III, the district will need to revisit the core program and RtI procedures
Professional Development	• Data analysis • Delivery of scientifically based interventions and instructional practices • Explicit instruction of specific skills • Delivery of district's core program/instructional materials • Teaching and interventions for culturally different learners • SST procedure • Functional behavioral assessment (FBA) • Behavioral interventions

Tier IV – Specialized Learning

In addition to Tiers I through III, targeted students participate in:

- Specialized programs, methodologies, or instructional deliveries.
- Greater frequency of progress monitoring of student response to intervention(s).

Students identified for Tier IV interventions will be involved in targeted instruction. Progress monitoring and data collection will be deep, systematic, and formalized. Tier IV interventions are individualized and are based on student assessment data. Documentation of progress is comprehensive and robust.

Tier IV is developed for students who need additional supports and may meet eligibility criteria for program placement in Special Education. With three effective tiers in place prior to specialized services, most students who are struggling will be successful and will not require this degree of intervention. Tier IV does not represent a location for services. It is a layer of interventions that may be provided in the general education class or in a separate setting. For students with disabilities needing special education and related services, Tier IV provides instruction that is targeted and specialized to students' needs. If a student has already been determined as a child with a disability, the school system should not require additional documentation of prior interventions to determine that the student demonstrates additional delays. The special education instruction and documentation of progress in the Individualized Education Program (IEP) will constitute prior interventions and appropriate instruction. In some cases, the student may require a full and individual evaluation to determine eligibility in additional disability areas.

Special Education Eligibility

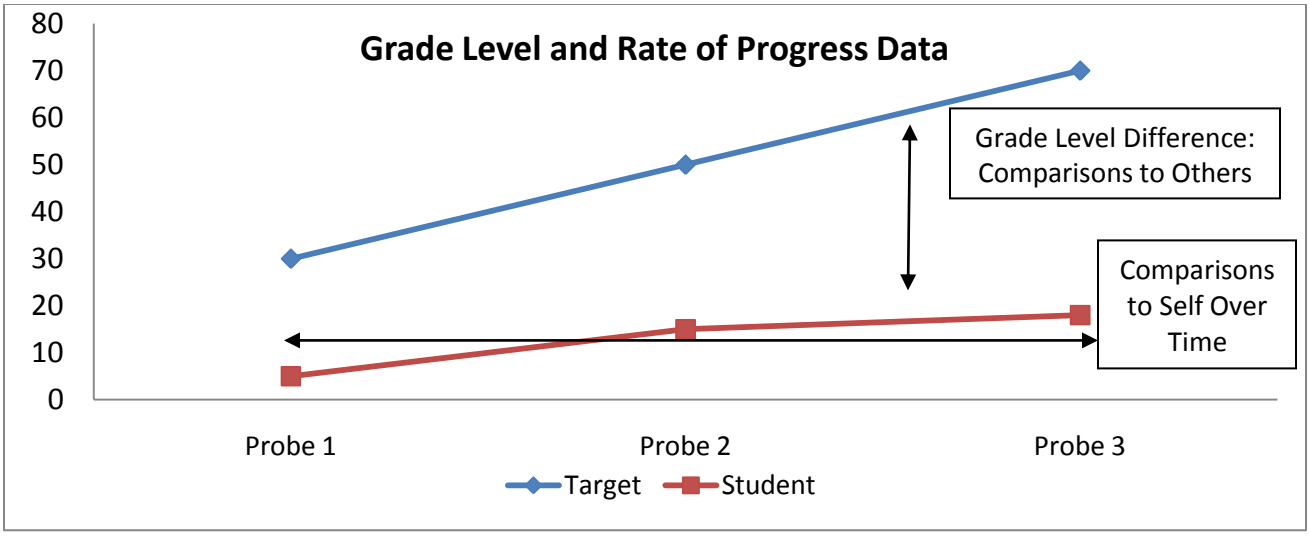
The required full and individual evaluation process for special education eligibility determination is intended to support the practices of providing high quality intervention matched to student need, frequent progress monitoring to adjust instruction, and the analysis of child response data to important educational decisions. This framework should guide eligibility teams in applying decisions to general, remedial and special education to a well-integrated system of intervention that is responsive to outcome data.

A local district opting to use the Response to Intervention option for the determination of Specific Learning Disability will need to establish clear local procedures and specifically define the assessments, interventions, and documentation requirements. The procedures must assure that the procedures are consistently applied across students.

Criteria for Tier IV Placement Decisions

The decision to move to a Tier IV recommendation should be made by the Student Support Team. The team will review the intervention plans, progress data, other information about the student, and the documentation of the fidelity of the interventions. The team must also consider the extent of resources required to support the student in the general education curriculum. When reviewing the data accumulated from the Response to Intervention process, the team will need to apply consistent criteria before moving to an intensive intervention placement. To create consistency across districts and schools in the county, it is strongly recommended that Wayne County schools apply these criteria.

The following graph portrays the relationship of grade level expectation and rate of learning difference in establishing that a student may need a full and individual evaluation to identify a learning disability.



Listed below are criteria for determining that a student is suspected of having a learning disability in a Response to Intervention framework.

☐ **EXAMINE THE QUALITY OF THE CLASSROOM ASSESSMENT DATA**

1. *Do the test items align to the pacing of the content in the grade level curriculum?*
2. *Is the difficulty of the test items aligned to classroom performance targets?*
3. *When using measures based on teacher judgment (i.e., rubrics, leveled readers, ratings) is the teacher scoring consistent with the scoring of another independent rater?*
4. *Did repeated measures include a minimum of 12 probes on specific skills?*

☐ ESTABLISH AGE/GRADE LEVEL DIFFERENCE

When applying this standard to the analysis of student data, the team is looking at the student's level of performance in comparison to a target for the age or grade of the student. The target may be defined by expectations for peers or grade benchmark expectations.

Refer to data from State assessments and district benchmarks. Michigan uses Proficiency Levels on state assessments that are general and descriptive targets for grade level instruction. A student should not be identified for special education based solely on the Michigan state assessments.

When using classroom screening assessments that provide ranking or percentile data, scores at or below the 10th percentile generally indicate a substantial weakness in the skill relative to same age or same grade peers (e.g., DIBELS).

When using classroom assessments that apply benchmarks, guided reading levels, or proficiency performance levels, a learning deficit would be indicated when a student is performing at or below 50% of the grade/age standard. A concern or weakness is identified when a student is performing at or below 75% of the grade/age standard (e.g., DRA).

Woodcock-Johnson III/NU includes a norm-referenced standardized score that reflects age differences in the learning of specific skills. Consider using the Relative Proficiency Index (RPI) Score. A Relative Proficiency Index score at or below 67/90 is a strong indication of significant difficulty in the skill area.

A cautionary note: If a student has not had the opportunity to be exposed to grade level information, the "level difference" data may be reflecting the lack of exposure rather than a deficit within the student.

☐ RATE OF LEARNING DIFFERENCE

The student's rate of learning is plotted over time but does not improve in the direction of targets or benchmarks when provided with high-quality interventions implemented over a significant period (e.g., CBM, progress monitoring, tiered support).

The frequency of data collection is a critical consideration when using Rate of Learning Difference data. Important considerations are:

- Did the team make the necessary checks on performance on time?
- Are the items of comparable difficulty over time?

Recommended progress monitoring frequency is a minimum of 12 weekly probes. If using a leveled or guided reading paradigm for determining rate of learning over time, there should be documented weekly skill probes.

ADVERSE EDUCATIONAL IMPACT

Review of the individual student qualitative and quantitative data indicates the need for specially designed instruction. Refer to the full and individual evaluation data matrix to consider additional information criteria.

EXCLUSION FACTORS

Review of other factors, such as a significant disability in another area, or an absence of meaningful instructional opportunities that explain the learning patterns and instructional needs of the student. Refer to the full and individual comprehensive data matrix within this document to review considerations.

If a local district is choosing to use Response to Intervention to identify a student as Specific Learning Disability, there must be a Review of Existing Evaluation Data (REED).
Refer to the Full and Individual Evaluation Data Matrix to ensure all data are available to inform the decision of the team as to the student's eligibility.

Sample RTI Report

The following report is an example of the summary information that would be used for Tier IV determination based on a district option for Response to Intervention only.

District
FULL AND INDIVIDUAL EVALUATION SUMMARY

Student Name: Michael
Gender: M
Age: 8 years, 2 months
Grade: 2

Briefly summarize the conclusion of the Multidisciplinary Team:

Based on Michael's response to intervention, it is the team consensus that he is eligible for special education services with a specific learning disability in the area of reading. Student's rate of progress (.83 words per week) and current level of discrepancy (below the 10th percentile) are both significantly discrepant from peers. Student's needs are currently greater than what can be provided in the general education setting.

Parent Comments and Concerns:

Michael's parents are concerned about his ability to keep up with his peers in the area of reading.

Educational Strengths:

Michael is currently performing at grade level in math. In addition, his writing skills are described as adequate.

Review of Exclusionary Factors:

Health/Vision/Hearing
Health: There are no health related needs identified in Student's health file.
Vision: Student passed the vision screening in second grade.
Hearing: Student passed the hearing screening in second grade.

English Language
Michael is English speaking. The language in the home is English.

Communication
There are not concerns in the area of communication at this time.

Motor
There are no motor concerns at this time.

Social/Emotional/Behavioral
Formal social/emotional/behavioral assessments were not necessary for this evaluation. Michael's classroom teacher did indicate that he is more on-task in other subject areas than he is in reading.

Cognitive
Cognitive assessments were not necessary for this evaluation. Michael displays age appropriate skills for personal care. According to parents, developmental milestones were met at expected ages. He is considered, by his teachers and parents, to be a student who comprehends at age/class expectancy. There were no cognitive concerns identified by the team.

Attendance
Michael has a history of good school attendance. He has not missed more than 5 days of school in a semester since the first grade.

Culture/Experience Factors
Michael had expected opportunities to be educated at grade expectancy. He has attended the same school since Kindergarten. There is no evidence of language, culture, or experience factors that would impact negatively learning.

Present Levels of Academic Achievement and Functional Performance - Academic:

Michael received supplemental reading services in both Kindergarten and first grade. In addition, he was identified by both fall and winter benchmark scores to receive intensive reading instruction through the RTI process. This instruction has been in place since September of 2008. This has included 30 minutes of daily instruction focusing on decoding, fluency, and comprehension. Michael's progress has been monitored periodically using second grade AIMSweb Oral Reading Fluency Passages. Fidelity of the intervention has been monitored at bi-weekly team meetings that review data probes and logs of instruction.

In September, Michael was able to read 16 words per minute while peers at the 50th percentile were reading 59 words per minute (using local district norms). In February, a significant change was made to his instruction, when his group size went from four students to two students. Currently, Michael is reading 31 words per minute while peers are reading 94 words per minute. Student gained .83 words per week while typical peers at the 50th percentile gained 1.9 words per week. Michael's progress compared to peers is summarized in the next section of this report.

Michael's progress can also be measured using DRA Reading Levels. In September, Michael was reading at Level 4, while peers at the 50th percentile were reading at the Level 16. Currently, Michael is reading at Level 15, 12th percentile while peers at the 50 percentile are reading at Level 23. Michael gained 5 levels while peers gained 7 levels in the same period of time.

Even with intensive instruction in the area of reading, Michael has not been able to make progress at a rate similar to peers. At his current rate of performance, he is not on track to close the gap with typical peers.

Current Level of Performance compared to typical same grade level peers:

Michael's performance compared to grade level peers is reported in the table below. Parents and teachers are reminded that whenever scores are reported, they are but one piece of information about a student.

Assessment: Percentile rank based on comparison to peers AIMSweb Grade 2

Assessment Michael's Performance		Performance of Typical Peers
Date	Oral Reading Fluency Passages	Oral Reading Fluency Passages
09/15/2008	16 words per minute <10th percentile	59 words per minute at the 50th percentile
02/15/2009	31 words per minute 12th percentile	94 words per minute at the 50th percentile

Michael is not currently performing near the level expected compared to typical peers. Michael currently receives Tier III reading instruction in a small group setting of two students at his reading level. In addition, he has a guided reading group in his classroom that also has only one other student and is presented at his level. According to his classroom teacher, Michael requires a significant amount of review and re-teaching on a regular basis as he has difficulty retaining and generalizing previously learned skills. In addition, the classroom teacher reports that Michael needs one-to-one assistance for any classroom activity that requires reading.

Classroom Observation:

Michael was observed in his general education classroom. Students were expected to work independently on a reading task. Michael required a great deal of adult assistance in order to complete the activity required. His teacher reports that he is able to successfully complete tasks independently in subject areas not requiring reading. According to the Reading Interventionist, Michael's reading is so slow and labored that it is impacting his ability to comprehend what he has read.

Educational Needs:

Michael needs to improve his reading skills, specifically decoding and fluency skills. After extensive individualized interventions, it is the recommendation of the team that Michael needs specialized instruction to benefit from the general education curriculum. His reading skills have not improved at the level or rate prescribed by previous intervention trials, with adjustments to his instruction.

Consistent with leading authorities on RtI (Fletcher, et. al., 2007), the Wayne County SLD Committee recommends a hybrid model that includes RtI plus normative testing.
See another sample report on Michael on page 129.

Guidance for Timely Decisions in the Response to Intervention (RtI) Framework

According to Federal rules, the public agency must promptly request parental consent to evaluate the child to determine if the child needs special education and related services, and must adhere to the timeframes described in §§ 300.301 and § 300.303, unless extended by mutual written agreement of the child's parents and a group of qualified professionals, as described in § 300.306(a)(1)—

> (1) If, prior to a referral, a child has not made adequate progress after an appropriate period of time when provided instruction, as described in paragraphs (b)(1) and (b)(2) of this section; and
> (2) Whenever a child is referred for an evaluation.

If the Student Support Team reviews presenting concerns and classroom data and suspects a handicapping condition, schedule a Review of Existing Education Data (REED) meeting to review the existing information and determine the next steps for evaluating the student.

The Student Support Team must NOT delay the referral to "wait for the student to fail" in the Response to Intervention paradigm if the team believes the interventions will not be effective or if the system is such that there will be adverse consequences for the student. If the impact of the interventions is unknown and there is reason to believe the student will benefit by taking the time for instructional assurances, then the team must give the student every opportunity to benefit from the instruction before proceeding to an evaluation.

If a parent suspects a handicapping condition and requests a referral for special education evaluation, the district must respond by scheduling a Review of Existing Education Data (REED) meeting to review the existing information and determine the next steps for evaluating the student.

Response to Intervention Was Not Attempted or Not Completed

The team may explain the district's response to intervention model and timeframes to the parent. If the parent agrees to give the model time, the team should not make a formal special education referral. Instead, develop a written plan of intervention and specify, in writing when data will be reviewed with the parent. Obtain parent written agreement to the plan and future meeting date.

If the parent does not agree to the instructional interventions of Response to Intervention, the team will proceed to complete the Review of Existing Evaluation Data. The team will identify the presenting concern. The team will establish the necessary data to complete the full and individual evaluation. A trial of interventions may be concurrent to the administration of standardized tests and other efforts to collect evaluation data.

All evaluations must be completed and go to initial IEP within 30 school days, consistent with Michigan rules.

Section 5

Equitable Educational Practices

and

Professional Standards of Practice

There is no seeing without looking, no hearing without listening and both looking and listening are shaped by expectancy, stance, and intention.

-Jerome Bruner

5.1 Equitable Educational Practices

The purpose of public education is a reflection of the common good that supports all democratic systems: equitable education. Therefore, public education systems must ensure that all students have access to, and are enabled to participate in, activities that foster the acquisition of the knowledge, skills and information necessary to participate in society as informed and engaged citizens, contributing to their communities (Kozleski, 2009).

The standards of practice and roles of the professionals who are involved in the analysis of student data and development of intervention/placement decisions must remain conscientious to the culture and context of learning for the individual student as well as the highest principles of the laws that are foundational to this work.

Ethnic, cultural, and linguistic diversity requires that all public school systems become equipped with the knowledge, skills and dispositions that not only foster access by all students, but also embrace the commitment necessary to allow all students to participate in education actively and equitably. Inclusive systems are characterized by models that emphasize the context of teaching and learning as the primary means of providing equitable environments, and in which there is a focus on the way in which all students respond to interventions, focusing on differentiated instruction approaches and a general pedagogy that is culturally responsive. Equitable systems go beyond equal education by going beyond providing the same resources and opportunities: "Equity goes beyond equality: It means that all students must be given the real possibility of an equality of outcomes" (Nieto & Bode, 2008, p. 11).

Teachers who have worked to make their classrooms more culturally sensitive consciously reflect on the way they teach: Then ask whether their approaches are currently successful with all students. From that perspective, culturally sensitive instruction is closely aligned with what is recognized as good teaching. According to Johnson and Protheroe (2003), the four features of culturally sensitive instruction are defined:

1. It is pro-student, and all students are seen as having the inherent resources and ability to experience academic success.

2. It recognizes that there is no single best teaching method that will effectively reach all students at all times. Effective teachers diversify their instruction in response to individual students' interests, personalities, and abilities. This naturally should take into account differences in culture while not ignoring students' need to learn skills necessary for success in the larger community.

3. It adheres to the "principle of least change." This framework suggests only the minimum number of changes necessary to produce desirable learning effects should be undertaken at any given time.

4. It maintains an emphasis on the maintenance of high expectations and high academic standards for all children. The key to success is seen in modifying instructional approaches, not the desired outcomes.

In inclusive schools, educators create environments designed for all students and the focus of assessment shifts from the individual students to the context in which learning is to occur. Response to Intervention (RtI) frameworks are problem-solving, community-based approaches to education which encompass the analysis of the many socio-cultural factors that converge upon communities and impact the interplay of social, cultural, and economic resources, as well as the varying expectations and pragmatics of teaching and learning.

A culturally responsive Response to Intervention (RtI) framework contributes to equitable practices by focusing on the monitoring and documenting of explicit skills and contexts. In turn, by focusing on specific skills and contexts, it shifts the focus from deficit theories that, in the past, linked a child's intelligence to their biological, social and cultural backgrounds. The essential culturally responsive and differentiated collaborative practices around student performance ensure that the student's opportunities to learn are being met, and reflect the tremendous conversion of decades of educational, socio-cultural and biological research.

As professionals who are examining student performance in the context of the educational systems, it will be imperative to uphold the practices and expectations that will ensure that student opportunities to learn are being met.

5.2 Professional Standards of Practice

The Michigan State Board of Education and Michigan Department of Education (2005) issued standards of professional ethics for Michigan educators. The ethics were developed to represent and uphold the standards of professionalism for each and every Michigan educator. The following ethical standards address the professional educator's commitment to the student and the profession.

1. **Service toward common good**
   ***Ethical Principle**: The professional educator's primary goal is to support the growth and development of all learners for the purpose of creating and sustaining an informed citizenry in a democratic society.*

2. **Mutual respect**
   ***Ethical principle:** Professional educators respect the inherent dignity and worth of each individual.*

3. **Equity**
   ***Ethical principle:** Professional educators advocate the practice of equity. The professional educator advocates for equal access to educational opportunities for each individual.*

4. **Diversity**
   ***Ethical principle:** Professional educators promote cross-cultural awareness by honoring and valuing individual differences and supporting the strengths of all individuals to ensure that instruction reflects the realities and diversity of the world.*

5. **Truth and honesty**
   ***Ethical principle:** Professional educators uphold personal and professional integrity and behave in a trustworthy manner. They adhere to acceptable social practices, current state law, state, and national student assessment guidelines, and exercise sound professional judgment.*

The ethical standards and the principles shall lead the intentions of the professionals who will participate in the processes of intervention, data collection, decision-making, and communications. The roles of leadership and the professions who collaborate together are described below:

Professional Roles

State level leadership:

- To provide up to date guidance to support implementation
- To support a statewide common understanding of the elements of RtI
- To identify exemplary school-based models and best practices

District level leadership:

- Create a district-wide plan for RtI implementation including the plan for monitoring, implementation of the interventions, and addressing issues of fidelity of instruction
- Determine reading, mathematics, and behavior expectations
- Establish and support a common set of characteristics of the tiers in all classrooms
- Support the implementation of each tier of the RtI pyramid

Building level leadership: The building leader aligns resources to ensure quality instruction for every student and to support staff to do the work of teaching. Responsibilities include:

- Implement the plan for RTI, including the plan for monitoring implementation of the interventions and addressing issues of fidelity
- Create a school wide focus on assessment driving instruction
- Develop staff understanding of the RtI process
- Establish schedules to provide various times for interventions
- Ensure Tier I standards based instruction occurs in all classrooms
- Establish standard protocols of support for students needing Tier II support

Every staff member must be invested in the learning and progress for every student.

General education teachers: The general education teacher who is considered highly qualified by the standards set forth in No Child Left Behind (NCLB), ideally in the suspected area of deficit contributes to the Student Study Team. General education teachers **must** participate by:

- Assume active responsibility for delivery of high quality instruction to ensure fidelity
- Provide research-based interventions
- Promptly identify individuals at risk, adhering to district procedures and professional standards of ethics
- Collaborate with special education and related services personnel
- Provide formal and informal data, which supports the prescriptive interventions and the effectiveness, or lack thereof, used to support the student in question
- Conduct progress monitoring, using probes to continually adjust instruction and adapt to student learning needs

Student Support Team Members may include:

- Reading/Literacy Specialist
- Teachers of English Language

- Resource Room Teacher
- Special Education Teacher
- Teacher Consultant
- Speech Pathologist
- School Social Worker
- School Psychologist

Each profession participates in the team, bringing the expertise from their field and enriching the understanding of the child and effectiveness of instruction through their collaborative interdisciplinary exchange. As teams evolve, the roles and responsibilities of team members may overlap and be implemented to best address the context of the team, the presenting concerns, and local procedures.

Suggested roles for Student Support Team Members are described:

- Review the data
- Support the interventions provided to the child as part of the general education curriculum and reporting data on these interventions to the team
- Consistently communicate with general education teachers
- Coach and model differentiated instruction, progress monitoring, and research-based interventions
- Increase adherence to fidelity of implementation of the intervention
- Observe the student to assist in determining appropriate general education interventions
- Determine affective factors that may impede academic progress
- Explore if the difficulties being experienced by the student are the result of emotional or environmental factors that are impacting him or her in the classroom setting
- Review records to identify learning opportunities and other factors that may contribute to learning difficulty
- Assess individual students using appropriate standardized instruments to develop a profile of student functioning
- Use standardized instruments, as well as informal techniques, to assess a student's pattern of strengths and weaknesses, and correlate these findings to current research as they relate to specific learning disability (SLD)

Parents

Parents play an important role in Student Support Team activities. They provide for their child's health, education, and care. Parents must be informed of interventions and their child's progress with interventions. Schools must provide parents with reports of repeated measures of student performance at reasonable intervals. It is important to seek parent input to make educational decisions that consider the child's development, learning patterns, and behaviors. Parents have responsibilities to communicate with the school and to be receptive to learning how to help their child succeed in school.

Section 6

Sample Forms for Documenting:

Student Support Team Data
Fidelity of Intervention Implementation
Intervention Plans

This section includes sample forms that may be used to document the work of the Student Support Team, the interventions, and the fidelity of the interventions.

Student Support Team Request for Support (Elementary)
District

General Information

Student Name: _____ Date: _____

School: _____ ID Number: _____

Grade: _____ Teacher(s): _____

DOB: _____Native Language: _____ Race/Ethnicity: _____

Parent/Guardian: _____ Home Phone: _____

Is attendance a concern? If yes, explain: _____ No. of tardies: _____ No. of absences: _____

How was parent notified of request for support? Letter: _____ Phone: _____ Other: _____

Date parent was notified of request for support: _____ By whom? _____

Reason for Request Academic: _____ Behavioral: _____

Did student receive Response-to-Intervention support in the past?

No: ___ Yes: ___ Describe interventions.

What are the student's strengths and interests?

In 25 words or more, please describe the specific concern.

If it is a behavioral concern, in what situations and/or settings does the behavior occur **most** often?

If it is a behavioral concern, in what situations and/or settings does the behavior occur **least** often?

Assessment Data

List the most recent data collected. Include classroom-based assessments as well as benchmark and progress monitoring assessment data. Attach data records.

DIBELS Benchmark	LNF	ISF	PSF	NWF	ORF	RETELL
DIBELS Progress Monitoring						
DIBELS Progress Monitoring						
DIBELS Progress Monitoring						
Developmental Reading (DRA)						
MLPP						
Other						

Page 2

Student name_____**Date**_____

Instructional strategies/interventions tried prior to request (If appropriate, attach sample work)

1. Describe the instructional strategy/intervention

   How well did it work?

   How many weeks was the instructional strategy/ intervention implemented?

   Who was responsible for implementing the instructional strategy/ intervention?

2. Describe the instructional strategy/intervention

   How well did it work

   How many weeks was the instructional strategy/intervention implemented?

   Who was responsible for implementing the instructional strategy/intervention?

Classroom Observation

If it is an academic concern, what is the best time to observe the student?

If it is a behavioral concern, what is the best time to observe the student

Additional Comments

Teacher Signature	**Date**
Building Administrator Signature	**Date request Was Received**
Team Member Signature	**Signature/Title**

Parent/Guardian Invitation to Student Support Team
District Name
Address
City, State

Date:

Dear Parents/Guardians of _____,

Our school is using a general education intervention process to help each student achieve school success. This process is known as Response-to-Intervention (RtI).

We would like to invite you to a Student Support Team meeting to explain this process to you and to discuss how we can work with you to provide school support for your son/daughter. The meeting is scheduled for:

Date:

Time:

Room:

Your child's classroom teacher as well as other staff members will be there to share information with you and to develop a Student Support Team Intervention Plan for your child.

Please feel free to contact your child's teacher if you would like us to invite someone to the meeting or if you need to reschedule.

Thank you. We are looking forward to meeting with you.

_____ _____
Building Administrator Date

_____ _____
Name/Title Date

Parent/Guardian Input and Survey

Student Name: _____ Grade: _____ Date: _____

School: _____ Teacher/Counselor: _____

1. What are your child's greatest strengths?

2. What are your child's interests?

3. What are your concerns about your child's progress and performance in school?

4. Does your child need help with homework on a regular basis?

5. Does your child receive special support outside of school (i.e. tutoring, therapy)?

6. How would you describe our child's feelings about school?

7. What do you think helps your child to be successful in school?

DIRECTIONS: Identify strengths with an "S" and difficulties with a "D".

READING
___ Vocabulary
___ Understands what he/she reads
___ Reading pace
___ Reading for fun

MATH
___ Basic math facts
___ Understands math
___ Solving problems

SPEECH
___ Speaks clearly
___ Grammar
___ Organization of ideas

WRITTEN LANGUAGE
___ Spelling
___ Grammar
___ Organization of ideas

WORK HABITS
___ Attention span
___ Following directions
___ Listening skills
___ Assignment completion
___ Organization of materials
___ Time management
___ Homework

___ Self-Image
___ Response to stress
___ Peer interactions
___ Adult interactions
___ Takes responsibility
___ Activity level
___ Impulsivity
___ Loner

SOCIAL ADJUSTMENT
___Withdrawal
___ Empathy towards others
___ Helpful to others
___ Leadership
___ Independence
___ Self-advocacy
___ Follows rules
___ Conflict resolution skills

ACADEMIC PERFORMANCE
___ Team work
___ Motivation
___ Independent work habits
___ Asks for help
___ Gets along with teacher
___ Attendance
___ Cheating

PHYSICAL
___ Appearance/hygiene
___ Appetite
___ Energy level
___ Eyesight
___ Hearing
___ Coordination
___ General health

Is there anything else you want us to know about your child that was not addressed here?

How is it best to communicate with you? Phone: _____ Email: _____ Other: _____

Phone: _____ Email: _____

Survey completed by: _____Relationship to student:_____

Student Interview

Student Name: _____ School: _____

Grade: _____ Age: _____ Teacher: _____

Interviewer: _____ Position: _____ Date: _____

Instructions: Interviewer should modify the language in this interview form to consider the age of the student. **This does not have to read word for word.**

1) What are your greatest strengths: In what areas do you do best? What are you most proud of doing?

2) In what area(s) could you improve the most? What things are most difficult about school for you?

3) What class/subject gave you the most difficulty last year? What is the one thing you can identify that made it difficult?

4) If we only picked one thing to focus on, what would you like for us to work on that would help you improve at school? What is one thing you would like to be different?

5) Are you involved in any sports/clubs/activities at school or outside of school? What organization?

6) When you think about what area you need help improving, think about what helps you learn best:

a) Curriculum: Are there certain material/papers/assignments that make learning more or less difficult? (e.g., true/false tests are confusing) What is your favorite kind of assignment? What is your least favorite kind of assignment?

b) Instruction: What does your teacher do that makes learning easier for you? (e.g., the teacher gives you review notes.) What does your teacher do that makes learning harder for you? (e.g., directions are confusing.)

c) Environment: Are there things about the classroom or where you study at home that make learning more or less difficult? (e.g., kids near me want to talk, so I join in.)

d) Learner: What things do you know about yourself that may help us help you to be more successful? (e.g., if I have to write down assignments, I seem to remember it better.) What will help you to be more successful in school and learn?

6.2 Fidelity of Implementation

Fidelity is critical to the design and implementation of a successful Response to Intervention (RtI) framework. Fidelity is the delivery of a program, intervention or system as it is intended with accuracy and consistency. To ensure that instruction and interventions are implemented with fidelity, a careful and systematic monitoring process by the building administrator or his/her designee must be established. Fidelity is important at the school level in documenting the implementation of the process and at the teacher level with instructional practice, interventions, and the monitoring of student progress.

How can schools ensure fidelity of implementation? (NRCLD 2006)

- Link interventions to improved outcomes (credibility)
- Definitively describe operations, techniques, and components
- Clearly define responsibilities of specific persons
- Create a data system for measuring operations, techniques, and components
- Create a system for feedback and decision making (formative)
- Create accountability measures for non-compliance

There are several approaches that can be used to assess fidelity (Roach & Elliott, 2008):

- **Self-report**
  The person who is delivering (teaching) the intervention keeps a log or completes a checklist which records the critical components of the intervention.

- **Permanent Products**
  Data and artifacts/documentation of the implementation of the intervention are analyzed to determine if critical components were followed.

- **Observations**
  Observations are conducted of the delivery of the intervention, checking for the presence or absence and accuracy of implementation and critical intervention components.

Essential Questions: What is fidelity (Parisi et. al., 2007)

Surface fidelity

- Were key components implemented?
- Was adequate time allowed?
- Was the specific amount of material covered

Quality of delivery

Teacher behaviors

- How is the teacher differentiating?
- Can you identify the standards based teaching practices?
- Is the teacher using formative assessment to guide instruction?
- Is there a range of teaching methods?

Student behaviors

- Are the students engaged in learning?
- What are the students doing?
- Are the students working together?
- Is there evidence of active or passive learning?

Fidelity Checklist
Tier I

Student: _____ Teacher: _____

Grade: _____ Age:_____ School: _____

Scientific, research-based core curriculum instruction and behavioral supports in general education have been implemented with fidelity for this student.

___ Yes **___** No **Evidence of Quality Tier I Core Level Standards-Based Learning**
The student is placed in a general education classroom where a highly qualified teacher is providing appropriate curriculum and instructional strategies.
If no, describe actions to improve fidelity:

___ Yes **___** No **Fidelity of Instruction**
The curriculum was implemented with fidelity for this student.
If no, describe actions to improve fidelity:

___ Yes **___** No **Differentiation of Instruction**
Instruction is differentiated to include appropriate accommodations and scaffolds to meet the needs of the student.
If no, describe actions to improve fidelity:

___ Yes **___** No **Repeated Measures of Student Performance**
Data for universal benchmark screening was collected at least three times a year and compared to grade-level peers in the district. The student scores in the lowest 25th percentile of his/her peer group based on this data.
If no, describe actions to improve fidelity:

Administrator/Designee Signature: _____ Date: _____

Fidelity Checklist
Tier II

Student: _____ Teacher: _____

Grade: _____ Age:_____ School: _____

Tier II targeted supplementary instruction was provided to this student as planned.

___ Yes **___** No **Evidence of Tier II Strategic Needs-Based Learning**
The student has received targeted scientific, research-based interventions for 4 - 9 weeks.
If no, describe actions to improve fidelity:

___ Yes **___** No **Fidelity of Intervention**
The intervention(s) was (were) implemented with fidelity for this student (including core curriculum, supplemental curriculum, and strategies).
If no, describe actions to improve fidelity:

___ Yes **___** No **Progress Monitoring Data**
The student's progress was monitored with repeated measures of the student performance, which was reported to parents. Assessment data was compared to peers, and the student's performance is less than the 15th percentile and/or less than 67% of benchmark proficiency.
If no, describe actions to improve fidelity:

___ Yes **___** No **Data-Based Decision Making**.
The student's individualized or small-group interventions were reviewed, revised, and/or discontinued based on the student's performance and progress with 2 – 5 data points. Performance less than 25th percentile.
If no, describe actions to improve fidelity:

Administrator/Designee Signature: _____ Date: _____

Fidelity Checklist
Tier III

Student: _____ Teacher: _____

Grade: _____ Age:_____ School: _____

Tier III direct, targeted, and intensive instruction was provided to the student with fidelity.

___Yes ___ No **Evidence of Tier III Intensive Needs-Based Learning**
The student has received targeted intensive, scientific, research-based interventions for 12-18 weeks.
If no, describe actions to improve fidelity:

___Yes ___ No **Fidelity of Intervention**
The intervention(s) was (were) implemented with fidelity for this student (including core curriculum, supplemental curriculum, and strategies).
If no, describe actions to improve fidelity:

___Yes ___ No **Progress Monitoring Data**
The student's progress was monitored with repeated measures of the student performance, which was reported to parents. Assessment data was compared to peers, and the student's scores are below the 10th percentile or in the lowest 67% of the grade level peer group.
If no, describe actions to improve fidelity:

___Yes ___ No **Data-Based Decision Making**
The student's individualized or small-group interventions were reviewed, revised, and/or discontinued based on the student's performance and progress with at least 12 weekly probes.
If no, describe actions to improve fidelity:

Administrator/Designee Signature: _____ Date: _____

6.3 Team Guidance: Data Collection on Instruction and Interventions

- ☐ Student was provided with appropriate instruction in general education with a qualified teacher
- ☐ Results of repeated measures of student performance at reasonable intervals during classroom instruction were provided to parents and reviewed by the team
- ☐ Academic interventions to provide supplementary instruction are documented, with attention to the fidelity of the efforts to impact student achievement
- ☐ Student is not achieving at proficiency with grade level content standards (as measured by state assessments and/or district benchmark assessments)
- ☐ Health, vision, hearing factors do not explain normative deficits or classroom performance deficits
- ☐ Environmental, cultural, economic factors do not explain the achievement performance deficits
- ☐ Multiple measures of achievement are considered

INSTRUCTIONAL INTERVENTION DOCUMENTATION SHEET

STUDENT:	**TEACHER:**	**DATE:**
STUDENT ID:	**SCHOOL:**	**REFERRAL DATE:**
GRADE:	**INTERVENTION START DATE:**	**INTERVENTION REVIEW DATE:**
What is the presenting concern? (State in specific and measurable terms)		
What data supports the existence of the problem? (Baseline data)		
What is the goal? (To be stated in specific and measurable terms)		
Describe the intervention to be attempted.		
List specific objectives of this intervention.	**Describe the activities for each objective involved.**	**List the specific measure of progress.**
CONDUCTED BY:	**NAME:**	**POSITION:**

INSTRUCTIONAL INTERVENTION PLAN	STUDENT NAME:	
TIMESPAN	**BEGIN DATE:**	**END DATE:**

SCHEDULE FOR DELIVERY OF INTERVENTION:

Number of contacts:

Length of contacts:

Interval between sessions (e.g., Daily, Number of Days)

Resources/Materials/Approach:

Number of students in intervention group:

How will the implementation of the intervention be monitored?

Progress Monitoring Checks to be Completed:

Frequency of Progress Monitoring:

Evaluation of success of intervention. Attach data charts from intervention. (Select from below).

☐ **Planned intervention was successful in meeting child's needs.** **This intervention will be continued in the current setting.** **Date**	☐ **Planned intervention was not successful in meeting the child's needs.** **Another instructional intervention will be conducted to attempt to meet child's needs.** **Date**	☐ **Planned intervention was not successful in meeting the child's needs.** **Referral for evaluation for special education is considered due to:** **Date**

Signatures:

(RtI Field Guides, Wayne RESA, 2007)

INTERVENTION TEAM FIDELITY CHECKLIST

Student: **School:**

Date:

1. The baseline data in the area(s) of concern was described in specific, measurable terms meaningful for the intervention?	Yes	No
2. The goal(s) for the student were described in measurable terms on the written intervention plan?	Yes	No
3. A method for measuring progress toward the goal was described in writing?	Yes	No
4. An intervention to improve student performance was designed in the form of a written intervention plan?	Yes	No
5. At least one person is assigned to SUPPORT the teacher in implementing the intervention plan?	Yes	No
6. The teacher was provided the time, materials, and training to implement the intervention plan?	Yes	No
7. An implementation integrity measure is available for checking how the intervention was implemented?	Yes	No
8. The parent of the student receiving intervention is aware and has the opportunity to be involved in the intervention process?	Yes	No
9. A date for the review of the intervention plan and progress monitoring data was specified in writing?	Yes	No
10. The student was in attendance in school and engaged in the intervention activities?	Yes	No
11. All parties followed the written intervention plan? If no, describe how the instruction deviated from the intervention plan.	Yes	No

(RtI Field Guides, Wayne RESA, 2007)

Student Data Summary

District

Date: _____ Student Number: _____

Student: _____ Gender: ____ DOB: _____ Age: _____

Address: _____ Home Phone: _____

School: _____ Grade: _____ Teacher/Counselor: _____

Parent/Guardian: _____ Relationship: _____ Phone: _____

Parent/Guardian: _____ Relationship: _____ Phone: _____

School History
Date of Entry into School: _____ Years in School: _____

Where did the student attend school? If the student moved, in what grades?
Elementary:

Middle Grades:

High School:

Family Information
With whom does the student live? (e.g., both parents, guardian, siblings)

How does student spend time after school? (e.g., day care, sports/activities, work)

Medical Information

Date of last vision exam: _____ Results: _____

Date of last hearing screening: _____ Results: _____
Prosthetic devices prescribed:
- ☐ Glasses Usage: All class work _____ Specific Tasks _____
- ☐ Hearing Aids Usage: All class work _____ Specific Tasks _____
- ☐ Other_____ Usage: All class work _____ Specific Tasks _____

Medications:
Reason: _____ Name: _____Dosage: _____Frequency:_____
Reason: _____ Name: _____Dosage: _____Frequency:_____
Chronic illnesses or allergies:_____

Special Education Summary
For currently identified Special Education students:

Initial MET/IEP: _____ Current MET/IEP: _____
Eligibility: _____
Current services: TC ____ SSW ____ TSLI/SLP ____ OT ____ PT ____
Current placement: _____
Assistive Technology: _____

Academic Information

Present Skill Levels:
Current Reading: _____ Assessment: _____
Current Math: _____ Assessment: _____
Current Written Language: _____ Assessment: _____

Education History
Describe Academic Supports: _____
ELL/Bilingual: _____
Other: _____

Testing Data:
Circle State Assessment: MEAP MEAP-Access MI-Access
Accommodations? ___No ___Yes, Describe:

Reading	_____	Math	_____
Writing	_____	Science	_____
ELA	_____	Social Studies	_____

District Benchmark Assessments:
Reading: _____
Math: _____
Writing: _____

Most Recent Academic Grades:

	Letter Grade	Instructional*		Letter Grade	Instructional*
Reading:	_____	_____	Social Studies:	_____	_____
Math:	_____	_____	Science:	_____	_____
Spelling:	_____	_____	Health/PE:	_____	_____
English:	_____	_____	Other: _____	_____	_____

*Refers to Instructional Level

Teacher Observations

For each area: Rate the student in comparison to classmates using the scale from 1-5
In Lowest 10% = 1; Below Average = 2; Average = 3: Above Average = 4; In Highest 10% = 5

	Rating		Rating		Rating
Completes assignments	_____	Functions independently	_____	Basic reading	_____
Motivation and effort	_____	Self-help	_____	Basic math	_____
Follows directions	_____	Sensitive to social cues	_____	Written language	_____
Follows rules	_____	Appropriate affect	_____	Listening	_____
Adult relationships	_____	Concentrates in class	_____	Comprehension	_____
Peer relationships	_____	Fine motor	_____	Speech articulation	_____
Health	_____	Gross motor	_____	Spoken language	_____

Teacher comments:

Discipline Record:

Number of discipline reports: _____
Number of office referrals: _____ Reasons: _____
Number of Suspensions:
In-school: _____ Reasons: _____
Out of school: _____ Reasons: _____

Exclusion Factors: Environmental, Cultural or Economic – Check all factors that apply to the student. Use available records, interviews with parents and other resources to obtain data.

Environmental Factors

___ Limited experiential background
___ Irregular attendance
___ Moved often
___ Home responsibilities interfering with learning activities

Cultural Factors

___ Limited experiences in majority based culture
___ Limited involvement in clubs, activities, etc
___ Live in isolated area
___ Family education expectations

Economic Factors

___ Homeless
___ Family challenges to afford enrichment materials and/or experiences
___ Student is eligible for Title I services

Are the above checked items compelling enough to indicate the student's educational performance is primarily due to environmental, cultural or economic disadvantage? Explain:

Limited English Proficiency
How long has the student spoken English? _____
Is there a language other than English spoken by the student? _____
Is there a language other than English spoken in the home? _____

ELPA: Total Score _____ Reading____ Writing ____ Speaking____ Listening ____
Does the ESL teacher indicate that the student is making progress in learning the English language? ___ Yes ___ No
If no, explain:

Motor Impairment
Does the student experience any motor limitations that impact educational performance?
If yes, explain further with summary of parent and medical reports.

Motivation: Please answer each question. If No, please explain:

Does the student seek assistance from teachers, peers, others? ___ Yes ___ No

Does the parent report that efforts are made at home to complete homework or study assignments? ___ Yes ___ No

Is the student making an effort to learn? ___ Yes ___ No

Are the student's achievement scores consistent with the student's grades? ___ Yes __ No

Situational Trauma

Has the student experienced a recent trauma (i.e. parents divorced, illness of student or family member, death of family member, serious accident or injury, financial crisis, crime victim, etc.)? ___Yes ___ No If yes, explain:

Is there any other situation that could be creating stress or emotional upsets for this student? ___ Yes ___ No If yes, explain:

Has there been a significant change in the student's classroom performance within a short period of time (6-12 months)? ___ Yes ___ No If yes, explain:

Team Data Collection: The "REED" and Beyond!

- ☐ Multiple measures of achievement are considered

- ☐ The study of abilities must include testing of intelligence skills to identify patterns of strengths and weaknesses that may further elucidate understanding of the student's learning difficulties

- ☐ The determination of learning disability is made by a team that includes the parent, teacher, and persons knowledgeable of the data and what it means

- ☐ The condition is not correctable without special education

- ☐ After considering the preponderance of evidence, the data support a determination of specific learning disability.

Note: The evaluation must lead to appropriate recommendations as to the best plan for instruction, which may include:

- classroom accommodations
- special education supports
- continued participation in response to intervention targeted small group instruction

Section 7

Full and Individual Evaluation (FIE)

…a full and individual evaluation is conducted for each student being considered for special education and related services. The evaluation will…determine…
…if the student is a "student with a disability; and
… the educational needs of the student.

-IDEA 2004

7.1 Full and Individual Evaluation (FIE)

A Full and Individual Evaluation (FIE) must be conducted to determine if an individual is entitled to special education services. Conducting a Full and Individual Evaluation is a continuation of the Response to Intervention (RTI) or problem solving process. The purpose of the FIE is to determine the educational interventions that are required to resolve the presenting problem, behaviors of concern, or suspected disability. Information collected during the RTI process is used along with additional assessment to assist in identifying effective interventions for a student experiencing difficulties.

A recommendation is made for the Full and Individual Evaluation when it is evident that additional resources and special education services may be needed to resolve the presenting concerns with student learning. The parents must give written permission before an FIE can be conducted. An FIE may be requested under any of the following circumstances:

- Academic and behavioral performance patterns demonstrate lack of adequate response to intervention
- The general education interventions have been successful but the resources needed to maintain success exceed the capacity of general education
- Parents have requested an evaluation or the team believes an evaluation is needed
- There are unusual circumstances such as injury or medical condition which suggest that an eligibility determination should be made as soon as possible.

The team should not rely on cut scores from standardized test data as the sole determining criteria. Rather, the team must carefully review all evidence from multiple sources over time to make a thoughtful, ethical, and valid determination of disability.

The Full and Individual Evaluation is completed by a multidisciplinary team using a variety of assessment tools and data sources. The multidisciplinary team consists of parents, the general education teacher or a teacher qualified to teach the student's grade or age, and other relevant personnel who can interpret the educational implications of the evaluation results. Results from outside sources, including medical or mental health reports, should be considered but the team is not obligated to use or follow these recommendations when making educational decisions. The team will be responsible for reviewing the results of all previous interventions and will define any additional assessments which may be needed in order to determine eligibility for special education services.

A variety of assessment tools will be used to provide information regarding the individual's educational performance. No single assessment tool or measure can be used as sole criteria for determining eligibility. Assessment tools and measures must be technically sound, valid, reliable, current, and administered by trained and knowledgeable personnel in accordance with any instructions provided.

The following Full and Individual Evaluation Data Matrix was developed to support the team in identifying and collecting necessary information to provide a thorough and complete assessment to make a determination of eligibility. Each of the components aligns to requirements of documented evidence to inform the recommendation of the team. The recommendations of the team must then lead to recommendations for relevant, necessary, and appropriate educational interventions.

Table 4. Specific Learning Disability Full and Individual Evaluation Data Matrix			
Multiple Data Sources	Data Available for ALL Students	Classroom Data Collected Prior and/or During Full and Individual Evaluation	Specialized Evidence Collected Prior and/or During Full and Individual Evaluation
Required by Federal Rules	**State Assessment** *(Required)* ***Does the student achieve at State standards for grade?*** MEAP/MI-Access Circle: Proficiency Level Reading 1 2 3 4 Writing 1 2 3 4 Math 1 2 3 4 *Non-tested MEAP Grades Option: Review most current year OR Rely on District Data*	**Classroom Observation** *(Required All Initial and Re-Evaluations)* ***Is the learning deficit observed by an independent rater in the classroom in which instruction is delivered?*** ☐ In area of referral concern ☐ Completed by team member Observation of learning difficulty noted in: ☐ Learner behaviors ☐ Work samples/products ☐ Difference from peer in meeting class expectation	**Exclusionary Factors** *(Required)* ***Are there other factors that explain the learning deficit?*** ☐ English as Second Language ELPA and Performance Data ☐ Adaptive behaviors < 2 standard deviations ☐ Health/Medical ☐ Sensory: Vision, Hearing ☐ Other handicapping conditions ☐ Environmental Factors ☐ Cultural Difference ☐ Economic Factors ☐ Limited access to appropriate instruction

Multiple Data Sources	Data Available for ALL Students	Classroom Data Collected Prior and/or During Full and Individual Evaluation	Specialized Evidence Collected Prior and/or During Full and Individual Evaluation
Multiple Measures of Achievement	**Repeated Measures of Student Learning** *(Required)* ***What is the learning improvement trend for the student with instruction?*** ☐ Progress Monitoring Data <10 percentile AND/OR ☐ Defined by District curriculum assessment method (i.e., DRA, Guided Reading) <50% Proficiency/Grade Repeated measures must be administered at evenly-spaced intervals, such as once per week over a reasonable interval, such as a 9 - 12 weeks or as defined by the District.	**Classroom Assessment Data In Achievement Area(s)** *(Highly Recommended)* ***What is the learning level of the student when compared to expectations for the age/grade of the general education program?*** District defined assessments that include expected performance levels for grade/age. Examples: Benchmark tests End of course exams Course entry exams MLPP levels Unit tests	**Normative Pattern of Strengths and Weaknesses** *(Required if using Pattern of Strength and Weakness Option)* ***What is the evidence of a pattern of normative specific deficits in a profile of a student with normative strength?*** ☐ Pattern of normative deficit for academic and cognitive skills that are linked by empirical evidence or validated logic. ☐ Pattern analysis includes identification of normative strengths in ability among cognitive and academic skills.

Multiple Data Sources	Data Available for ALL Students	Classroom Data Collected Prior and/or During Full and Individual Evaluation	Specialized Evidence Collected Prior and/or During Full and Individual Evaluation
Other Information Sources to Inform the Team Decision	**Parent Input** *(Required)* ***How does the parent's report describe the student's development, life experiences and the learning patterns observed in the home?*** Possible Areas of Concern: ☐ Developmental Concerns ☐ School/Learning Concerns ☐ Behavioral Concerns ☐ Social Concerns ☐ Describe:	**Teacher Input on Learning Behaviors and Progress** *(Required)* ***How does the teacher's report describe the instructional program, the student and the learning patterns?*** Information to consider: ☐ Student Learning Behaviors ☐ Student Engagement ☐ Instructional Program ☐ Differentiated Instruction ☐ Specialized Instruction Opportunities ☐ Describe:	**Other Evaluation Reports** *(Recommended for team consideration, when available)* ***What does other evaluation information tell us about the student?*** ☐ Previous evaluations ☐ Reports from other sources ☐ Previous specialized services

Multiple Data Sources	Data Available for ALL Students	Classroom Data Collected Prior and/or During Full and Individual Evaluation	Specialized Evidence Collected Prior and/or During Full and Individual Evaluation
Instructional Evidence to Support the Team Decision	**Report Card Grades** *(Team data review consideration)* ***How is the student succeeding in current classroom instruction?*** What do progress reports indicate regarding changes in performance over time? Does the student meet classroom expectations to achieve average and above grades? In what areas does the student obtain below average or failing grades? How do teacher comments inform the understanding of the student learning and instructional needs?	**Documentation of Instructional Intervention Delivered with Fidelity** *(Required if using Response to Intervention Option)* ***Was the student given opportunities to acquire skills using a process of instructional interventions?*** ☐ Interventions were delivered with fidelity ☐ Documentation of intervention goals and methods ☐ Intervention trials for a minimum of 9 weeks for each tier ☐ Data points include 9– 12 probes per intervention trial	**Additional Achievement Tests/Probes** *(Recommended)* ***Are normative achievement deficits evidenced with other measures of achievement?*** What additional tests within the skill areas will inform the determination of disability? How will additional achievement data inform the development of educational plans for the student?

Section 8

Classroom Observation Guidelines

"The most important single factor influencing learning is what the learner knows. Ascertain this and teach accordingly."

- David Ausubel

8.1 Classroom Observation Guidelines

The Law

(a) The public agency must ensure that the child is observed in the child's learning environment (including the regular classroom setting) to document the child's academic performance and behavior in the areas of difficulty.
(b) The group described in Sec. 300.306(a)(1), in determining whether a child has a specific learning disability, must decide to—

> (1) Use information from an observation in routine classroom instruction and monitoring of the child's performance that was done before the child was referred for an evaluation; or
> (2) Have at least one member of the group described in Sec. 300.306(a)(1) conduct an observation of the child's academic performance in the regular classroom after the child has been referred for an evaluation and parental consent, consistent with Sec. 300.300(a), is obtained.

(c) In the case of a child of less than school age or out of school, a group member must observe the child in an environment appropriate for a child of that age.
(Authority: 20 U.S.C. 1221e-3; 1401(30); 1414(b)(6))
From IDEA 2004: Sec. 300.310

Guidance on Classroom Observations

No one method of data collection or testing is sufficient as a basis for the identification of a learning disability. Assessment data must be validated with anecdotal records, developmental history, classroom performance measures, access to school records and documentation of such events as response to quality instruction. The psychometric measures of cognitive and achievement strengths and weaknesses provide more opportunities to observe the student during thinking and achievement tasks.

The direct classroom observation should serve the purpose of substantiating the academic deficits determined by standardized assessment tools and multidisciplinary reports. A systematic classroom observation is both quantitative and qualitative. The student's physical placement in the classroom setting and the physical design of the classroom should be noted.

In a systematic classroom observation the skills should be assessed in the areas of:

> **Work Habits** include participation in classroom activities, volunteering, organization, assignment completion, proficiency in the subject matter, eye contact, independence, time needed to get started on a an assignment, prompting required by the teacher, time needed to complete work, and ease of transition from one task to another.

Speaking Skills include clarity and fluency of speech, articulation, and the ability to communicate ideas logically and cogently.

Listening Skills are following directions, needing repeated or additional directions, asking for clarification, and preferring auditory instruction over other sensory modes.

Behavior Habits can influence or be influenced by the other areas. Behaviors such as restlessness, poor concentration, short attention span, distractibility, poor motivation, responsiveness to instruction, and interpersonal interactions with peers and adults are important to understanding students and difficulties with academic performance.

Academic Performance Observations may establish if, for the individual student, the difficulty level of instruction is at a level of frustration, instructional proximity, or independent level. Academic performance observations may note accuracy in comparison to class standards or peer performance. Observations of student errors and questions may inform of student fluency in applying academic skills to instructional tasks.

There are several types of observational procedures that an examiner may use to collect information. The types of observations may include:

- Rating Scales
- Charting Methods
- Checklists
- Narrative Descriptions

The following Classroom Observation Record encompasses many skills and behavior items needed for a global assessment of the student's academic performance in the regular classroom. It is suggested to use a code of "yes", "no" or "n/a" in the boxes and make comments when using "no." It is necessary to document and describe how the area of disability impacts the progress in the general education curriculum. The summary can be recorded in the section provided under each skill/behavior section that relates to the areas of difficulty.

At times it may be necessary to do multiple classroom observations to ensure student's academic performance is validated. When the student is involved in producing work during the observation it may be necessary to analyze the assignment at a later time. After analyzing the assignment, the observer can accurately complete the observation form. The observation data form becomes part of the verifying documentation of the student's academic performance for the M.E.T. report.

A Classroom Observation is Required for Every Initial Evaluation and Re-Evaluation

Classroom Observation Record

Date: **Name:**

School: **Teacher:**

Time Observation Began: **Time Observation Ended:**

Observation Area of Concern	Classroom Organization
Check area(s) of concern from REED ☐ Basic Reading Skill ☐ Reading Fluency ☐ Reading Comprehension ☐ Written Expression ☐ Mathematics Calculation ☐ Mathematics Concepts ☐ Oral Expression ☐ Listening Comprehension **Describe the Lesson:**	**Location of Observation:** Check all that apply: **Learning Activity:** ☐ Teacher Presentation ☐ Whole Group Recitation ☐ Small Group Work ☐ Individual Seat Work ☐ Partners **Student's Desk Location:** ☐ Front ☐ Back ☐ Same as peers ☐ Isolated

READING: Basic Reading Skills, Reading Comprehension, Reading Fluency Skills

- ☐ Age appropriate reading skills
- ☐ Confuses similar-looking letters and numbers or similar looking words (i.e., beard, bread)
- ☐ Has difficulty recognizing and remembering sight words
- ☐ Frequently loses place while reading
- ☐ Reverses letter order in words (ie, saw/was)
- ☐ Demonstrates poor memory for printed words
- ☐ Reads slowly
- ☐ Has trouble naming letters
- ☐ Has problems associating letters and sounds, understanding the difference between sounds in words or blending sounds into words
- ☐ Guesses at unfamiliar words rather than using word analysis skills
- ☐ Substitutes or leaves out words while reading
- ☐ Has poor retention of new vocabulary
- ☐ Dislikes and avoids reading or reads reluctantly
- ☐ Has weak comprehension of ideas and themes

Notes:

WRITTEN LANGUAGE
☐ Age appropriate ☐ Writing is messy and incomplete, with many cross-outs and erasures ☐ Has difficulty remembering shapes of letters and numbers ☐ Frequently reverses letters, numbers and symbols ☐ Uses uneven spacing between letters and words, and has trouble staying “on the line” ☐ Copies inaccurately (i.e., confuses similar-looking letters and numbers) ☐ Spells poorly and inconsistently (i.e., the same word appears differently other places in the same document ☐ Has difficulty proofreading and self-correcting work ☐ Fails to develop ideas in writing so written work is incomplete and too brief
Notes:

MATHEMATICS: Math Calculation, Math Computation
☐ Age appropriate ☐ Has difficulty with simple counting and one-to-one correspondence between numbers symbols and items/objects ☐ Has difficulty learning strategic counting principles (i.e., by 2, 5, 10, 100) ☐ Poorly aligns numbers resulting in computation errors ☐ Has difficulty estimating quantity (i.e., quantity, value) ☐ Has difficulty with comparisons (i.e., less than, greater than) ☐ Has trouble telling time ☐ Has trouble conceptualizing the passage of time ☐ Has difficulty counting rapidly or making calculations ☐ Has trouble interpreting graphs and charts
Notes:

Listening Skills	Speaking Skills
☐ Appropriate language comprehension ☐ Appears to learn from listening ☐ Follows directions to locate materials ☐ Follows directions to engage in tasks ☐ Repeats directions accurately ☐ Needs extra directions ☐ Frustration with assignment ☐ Difficulty locating pictures, objects, letters, words	☐ Appropriate verbal language in class ☐ Volunteers to answer questions ☐ Answers with logically sequenced ideas ☐ Speaks in full sentences ☐ Uses appropriate vocabulary ☐ Listeners ask student to repeat statements ☐ Difficulty relating ideas ☐ Mispronounces words ☐ Loses place when speaking ☐ Confuses words with others that sound similar ☐ Difficulty re-telling
Notes:	Notes:

Work Habits	
☐ Participates with class ☐ Volunteer to read orally ☐ Volunteer to answer question(s) ☐ Eye Contact with teacher/peers ☐ Materials on desk/Ready for lesson ☐ Gets to work promptly ☐ Works independently ☐ Works appropriate in group activities ☐ Appears motivated to learn ☐ Completes homework	☐ Does not contribute to class ☐ Slow to respond when called on ☐ Poor posture ☐ Does not look at teacher ☐ Disorganized ☐ Needs extra time ☐ Does not finish assignment(s) ☐ Rushes through tasks ☐ Messy
Notes:	

Behavior Habits	
☐ Attention span appropriate for age and activity ☐ Restless, inattentive during written work ☐ Restless, inattentive during lecture ☐ Off task ☐ Easily distracted ☐ Difficulty following directions ☐ Unable to keep place on page ☐ Unable to keep pace with class ☐ Written work messy ☐ Difficulty copying ☐ Out of seat ☐ Interrupts others ☐ Inappropriate comments to teacher/peers	Time Sample Option: Identify 1 behavior of concern. Every 20 seconds, record if the behavior did occur with +. If behavior did not occur, record a 0. Behavior: ☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐☐☐
Notes:	

Additional Observations

Section 9

Exclusionary Clause Considerations

…must include a statement of…the documentation of the group concerning the effects of a visual, hearing, or motor disability; mental retardation; emotional disturbance; cultural factors; environmental or economic disadvantage; or limited English proficiency on the child's achievement level…

-IDEA 2004

9.1 Exclusionary Clause Considerations

Listed below are key considerations for differentiating a specific learning disability from other causal factors, as much as possible:

1. When considering the existence of other handicapping conditions, if the challenges presented by the other handicapping conditions are addressed, would the student's academic skills improve?

2. Culture may refer to differences of heritage, values, or behaviors. Are the presenting concerns regarding student performance attributable to differences in heritage, values or behaviors, or are they indicators of a persistent learning deficit?

3. With respect to environmental or economic disadvantage, what does the school do to create access to learning opportunities for students from poverty? Is this a learning concern that may be addressed through compensatory education programs or is this a handicapping condition that cannot be ameliorated with exposures?

4. Is the student's learning difficulty explained by language acquisition factors?

Limited English Proficiency

NCLB uses the term "Limited English Proficient" (LEP) to refer to students in the process of acquiring the English language. These students are also at times referred to as English as a Second Language (ESL) students. Recent professional practice, in response to issues related to culturally responsive practices and a shift away from deficit theories, recommends the use of the term English Language Learners (ELL). Therefore, this document will use the most recent and appropriate terminology in lieu of all others.

The term *English Language Learner* includes students whose conversational English may seem adequate but struggle with English academic settings (Gersten & Baker, 2000). However, it is recognized that the term English Language Learners does not depict a homogeneous group. For English Language Learners, second language acquisition is a lengthy, developmental process, whereby students whose native language is not English acquire listening, speaking, reading and writing skills in the English language. At the same time, these students must also master content area instruction typically delivered in English.

According to Cummins' theory of language acquisition, there is a vast difference between the development of a native, or first, language, and the learning of a second language. To understand the process of second language acquisition, one must understand that, in order for a student to become proficient in a second language, both basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP) need to be developed. Cognitive Academic Language Proficiency (CALP) represents the basis for a student's academic

success, but it may take anywhere from five to seven years, or longer, to master. Basic Interpersonal Communication Skills (BICS), in contrast, are usually attained within the first two years of exposure to a second language, and are characterized by superficial oral language skills.

Erroneously, many teachers assume that because an English Language Learner can speak English, they should also be able to complete academic tasks in English. However, as specified above, this may not be the case. Cognitive Academic Language Proficiency (CALP) is a complex process that is impacted by previous schooling, age, and cognitive experiences. Students who have two to three years of schooling in their native language may require five to seven years to obtain academic proficiency in the second language, while students who have never received native language schooling may take seven to ten years to become proficient. In practical terms, children in the 8 to 11 year-old age group, who acquired solid literacy skills in their first language are more likely to become proficient (CALP) within the five to seven year mark. Conversely, younger children (i.e. preschool population) that have not had an opportunity to fully develop their native language will generally take longer to become proficient (CALP).

In the process of second language acquisition, a further complication may occur: that is the regression of the native language due to a lack of continued exposure to more complex concepts in the native language, and the introduction of a second language before the native language is fully developed. In this instance, there may appear to be a lack of proficiency not only in the second language, but also in the first. If a child is not competent in his/her native language, it will affect his/her competence in the second language. Native language loss may occur even while being used in the home. Therefore, a child's proficiency in their first language may regress, while lacking proficiency in the second language, due to limited exposure.

According to the federal government, an English Language Learner is an individual who:

- is 3 to 21 years of age; and
- is enrolled or preparing to enroll in an elementary or secondary school; and
- was not born in the United States, or
- whose native language is a language other than English;
- is a Native American, Alaska Native, or a native resident of the outlying areas and comes from an environment where a language other than English has had a significant impact on the individual's level of English language proficiency; or
- who is migratory, whose native language is a language other than English, and comes from an environment where a language other than English is dominant; and
- **whose difficulties in speaking, reading, writing, or understanding the English language may be sufficient to deny the individual –**
    - **the ability to meet the State's proficient level of achievement on State assessments**
    - **the ability to successfully achieve in classrooms where the language of instruction is English; or**
    - **the opportunity to participate fully in society.**

  [Public Law 107-110, Title IX, Part A, Sec. 9101, (25)]

As it is readily apparent in the above definition English Language Learners may display characteristics of academic deficits, when measured with comparable methods to the processes that might identify a student with a specific learning disability. Because of this, it is extremely important to ensure that English Language Learners are provided with appropriate instruction, that the methods of assessment are appropriate, and that a thorough review of information about the student's prior learning opportunities has been completed in order to allow for robust determinations.

In Michigan, and in order to meet the instructional needs of English Language Learners (ELLs), six levels of English language proficiency are used, to more accurately describe student proficiency in listening, speaking, reading (and comprehension), and writing skills. The instrument used to determine the level of each student's proficiency in English as a second language is the English Language Proficiency Assessment (ELPA).

An English Language Proficiency Assessment (ELPA) score below Level 3 indicates the student has not yet acquired the necessary level of language proficiency (CALP). Therefore, language acquisition cannot be ruled out as a factor involved in the student's learning difficulties. Students with English Language Proficiency Assessment (ELPA) scores of Level 4 and above are considered proficient in English.

Guidance for Student Support Team Considerations with English Language Learners

- ☐ Parent or teacher reports that an English Language Learner (ELL) student is experiencing school related problems that are not related to, or the result of, second language acquisition.

- ☐ The type of problem that the student is experiencing is specified (oral language, reading comprehension, etc.).

- ☐ The student's ELPA score is reviewed or, if none available, an English Language Proficiency Assessment is administered.

- ☐ The possible need for expanded bilingual/ESL service must be explored relative to ELPA scores and achievement in school.

- ☐ A classroom observation may be done by someone knowledgeable in second language learning, to evaluate the appropriateness of the student's current educational/learning environment.

- ☐ The existing plans for instructional intervention (RtI), as well as the existing second language learner services are reviewed for fidelity and records of student progress.

- ☐ The Student Support Team determines intervention plan for the student.

- ☐ If the Student Support Team is suspecting a handicapping condition, the recommendation is made to schedule a REED.

- ☐ A REED is convened to examine existing education data and determine the need of special education referral. The bilingual/ESL staff person must be included.
  Result of REED can produce:

    - ☐ Resolution of concern
    - ☐ Section 504 referral
    - ☐ Special education referral

Guidance of Specialized Considerations for English Language Learners during Full and Individual Evaluation

1. Selection/composition of team members
    - ☐ At least one team member is knowledgeable of the student's language and culture. Bilingual personnel are to be equal, sharing member(s) of the team

2. Determine language of assessment
    - ☐ Language dominance and proficiency, as well as language of prior schooling
    - ☐ Examine and determine the need and use of bilingual psychologist/translator/interpreter. A trained interpreter is an individual who is knowledgeable of the student's culture, language, and testing procedures
    - ☐ Determine whether cognitive and academic assessment should be performed in both the native language and in English in order to provide an accurate picture of the student's abilities (Students who score Level 1 or 2 on the Woodcock Munoz or the ELPA should be assessed in the native language.)

3. Examine the socio-cultural factors that impact the student's current performance
    - ☐ Length of time in U.S. and exposure to public schooling
    - ☐ Type of culture: impact on disability, assessment, and schooling
    - ☐ Cultural support for education
    - ☐ Impact of disability on family, community and student's future
    - ☐ Observations of the student in both home and community to gauge out of school functioning as compared to school performance
    - ☐ Student's motivation for English language learning
    - ☐ Effect upon present level of academic functioning as the result of the student's experiential background
    - ☐ Student's cultural/linguistic interaction patterns at school, in the home and the community
    - ☐ Family/community expectations for the student and their awareness/acceptance of the problem
    - ☐ Student's level of functioning as compared to siblings

4. Determine appropriate assessment instruments
    - Provide opportunities for Response to Intervention
    - Consider curriculum based assessment or direct assessment of skills as a more accurate basis for performance testing
    - Cognitive ability is best inferred from a wide range of behaviors including social, cognitive and educational tasks as posed within a variety of environmental settings
    - Use good “clinical judgment” when interpreting the results of any instrument for assessment. Data interpretation requires knowledge of and sensitivity to the linguistic and cultural heritage of the student
    - Assure assessment of academic functioning in both English and in the native language, if appropriate, as determined by the language proficiency test results
5. MET report/recommendations
    - A key factor in making appropriate educational decisions is to carefully observe the student’s response in learning environments that are appropriate to the student's language status and current level of functioning
    - Findings and recommendations should be shared with the student’s parent/guardian. Care must be taken to explain the information in a culturally/linguistically appropriate manner
    - Final recommendations are to be based upon the unique needs of the student within the cultural/linguistic picture of the environment. (Remember: The program must fit the student not the student fit the program.)
6. The Individualized Education Program (IEP) is designed with goals and support services that reflect the language of instruction. Coordination of services with ESL/bilingual staff must be appropriately planned

Section 10

Pattern of Strengths and Weaknesses

…the child exhibits a pattern of strengths and weaknesses in performance, achievement, or both relative to age, State-approved grade-level standards or intellectual development…

-IDEA 2004

10.1 Discussion on Pattern of Strengths and Weaknesses

Pattern of Strengths and Weaknesses
At § 300.309(a)(2)(ii), the Individuals with Disabilities Education Act regulations identify a pattern of strengths and weaknesses as an option in determining Specific Learning Disability eligibility. The Rules permit local districts to use this option. The MDE does **not** mandate any specific process to determine a pattern of strengths and weaknesses. Any determination of Specific Learning Disability requires a full and individual evaluation according to the evaluation procedures in the federal regulations at § 300.301 – § 300.311, including those particular to a student suspected of having a Specific Learning Disability in § 300.307 – § 300.311.

The "Pattern of Strengths and Weaknesses" (PSW) Approach
In review of research on methods of SLD identification, along with the scientific advances that have been documented with regards to cognitive processes and academic difficulties, we believe that sole reliance on the ability-achievement discrepancy model is problematic for reasons previously stated. Those students who do not respond to scientifically validated and researched based instruction may need a full and individual evaluation of academic and cognitive/intellectual functioning. Thus, a balanced approach to the evaluation of learning disability within the context of a full and individual evaluation should incorporate not only historical performance data (e.g., teacher based, work samples, benchmark assessments), but also, standardized cognitive and academic assessment.

The approach in these guidelines for a comprehensive framework follows established principles and standards for valid assessment and incorporates a contemporary and theory-based operational definition of a specific learning disability. This approach will also allow for alternative research-based methods to identify and intervene with students with SLD. So, this paradigm will integrate accepted concepts and research about learning disability with theories about cognitive and academic functioning in a comprehensive framework for making decisions about LD eligibility. These operational definitions provide an inherently practical method for SLD identification that carries the potential for increased agreement about the validity of SLD classification (Kavale, 2005). It is designed to look at abilities/processes that are most directly related to the development of academic skills and thus is the best predictor of those skills. This model is specifically designed to determine if

A balanced approach to the evaluation of Specific Learning Disabilities within the context of a full and individual evaluation should incorporate curriculum-based performance data, standardized cognitive and achievement data, and multiple sources of information about the student, the instruction, and the other circumstances that impact learning.

there is a pattern of strengths and weaknesses in a student's academic and cognitive profile that can account for the child's learning pattern. A specific learning disability is located if there is a conceptual and empirical link between academic skills weakness of concern and underlying cognitive processes or abilities. This should be consistent with referral concerns and other data (e.g., CBM, teacher report).

Specifically, this pattern of strengths and weaknesses paradigm offers an array of standardized data to *evaluate* a profile to determine if there are c*onceptually and empirically related cognitive and academic weakness(es)* that exist in an *otherwise normal ability/processing profile.*

That there are circumscribed deficits in the context of a normal ability profile represents the underachievement concept important in the construct of SLD. So, there must be average or better functioning in other cognitive abilities. Thus, the ability-achievement consistency is an important marker for SLD (i.e., cognitive deficits conceptually and empirically related /consistent with based academic deficits; also would expect academic strengths consistent with cognitive strengths).

Principles of Pattern of Strength and Weakness (PSW)

There are several "patterns of strengths and weaknesses" models that have been developed to evaluate students for learning disability. Each of these PSW models follows four general principles.

1. A global IQ is deemphasized in favor of pattern of strengths and weaknesses.
2. A SLD pattern of cognitive and academic strengths and weaknesses should be seen within an otherwise normal ability profile. Retain the conception of SLD being a circumscribed deficit and strengths and unexpected academic deficits.
3. Academic deficits and cognitive deficits should be conceptually and/or empirically linked.
4. Most cognitive abilities that do not relate to the area of academic concern are average or above. Cognitive abilities that are conceptually or empirically related to academic strengths should not be related to academic deficits.

10.2 The Cattell-Horn-Carroll (CHC) Theory

As stated earlier, the Cattell-Horn-Carroll (CHC) model of cognitive abilities is the empirically based, valid and measurable construct for the analysis of learning abilities. The Cattell-Horn-Carroll (CHC) Theory classifies cognitive skills within seven clusters of abilities that demonstrate moderate to highly significant correlations to academic achievement skills. The seven CHC areas are defined:

Comprehension-Knowledge: The breadth and depth of knowledge including verbal communication and information.

Fluid Reasoning: The ability to reason and solve problems that often involve unfamiliar information or procedures. Fluid reasoning abilities are manifested in the reorganization, transformation, and extrapolation of information.

Auditory Processing: The ability to discriminate, analyze, and synthesize auditory stimuli. Auditory processing skills are related to phonological awareness.

Long-Term Retrieval: The ability to store information efficiently and retrieve it later through association.

Short-Term Memory: The ability to hold information in immediate awareness and then use it within a few seconds, also related to working memory.

Processing Speed: The speed and efficiency in performing automatic or very simple cognitive tasks.

Visual-Spatial Thinking: Spatial orientation, the ability to analyze and synthesize visual stimuli, and the ability to hold and manipulate mental images.

Why Use the Cattell-Horn-Carroll (CHC) Theory?

Students use their whole brains to learn and we are interested in examining how the cognitive and achievement abilities are consistent with one another. For example, the skills that contribute to learning to read include auditory discrimination, short term memory, long term memory, processing speed and basic reading abilities. Instead of looking for a student's "true IQ" to predict learning, we will examine the learning skills that are consistent with the achievement skills students learn in school.

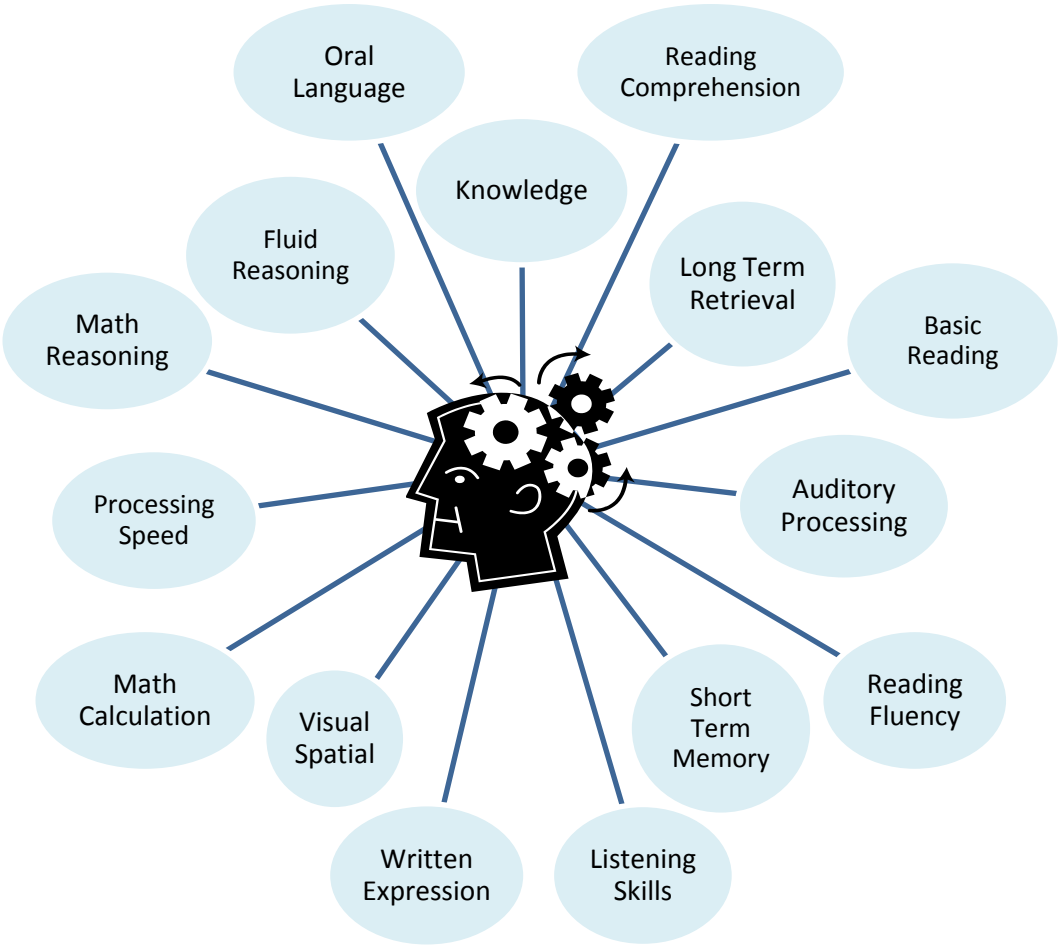


Figure 4. Cognitive and academic skills work together in the brain.

In the new model for SLD identification, we will look for consistencies among cognitive and academic skills. Consistencies are identified among the skills that cluster together as weaknesses and the skills that cluster together as strengths. The consistencies among skills are then examined relative to a normal ability profile.

10.3 The Aptitude-Achievement Consistency Model

The model is called the **Aptitude-Achievement Consistency Model** proposed by Flanagan, Ortiz & Alfonso (2007).

- This model documents low achievement in a specific area; identifies a deficit in a cognitive ability that is linked by research to the academic weakness; and provides a method to determine that most cognitive abilities are average or above.

- This model is based on Cattell-Horn-Carroll (CHC) intelligence theory. The CHC theory has a vast research base. Data sets from over half a million administrations of different cognitive and neuropsychological tests were used to determine what the actual specific human cognitive abilities are. Instead of relying on opinion or observation, the CHC theory has developed a factor structure based on fifty years of research on all kinds of intelligence tests. When using this model, practitioners are not limited to any one test or group of tests. Based on presenting concerns, tests are selected to probe cognitive and academic skills.

- The aptitude-achievement consistency model has particular utility for discriminating between cases of borderline intellectual functioning (and mild mental retardation) and specific learning disability. The model discriminates between normally developing English Language Learners (ELL) students and ELL students with specific learning disability (SLD).

Rationale for a New Operational Definition for the Assessment of SLD

The psychological practice of specific learning disability identification has relied historically on methods and procedures that have virtually no inherent reliability, much less validity. Practitioners have often searched for discrepancies wherever they may exist.

Analysis of intra-individual differences is fraught with both psychometric problems and errors in logic. Most individuals have significant variability in their profile of cognitive ability/processing scores. Significant test variation in performance is normal. The expectation of a flat profile is unwarranted. And there has been no standard or guide regarding what types of scores should be compared. A discrepancy between two scores of any kind is neither necessary nor sufficient to establish the presence of a specific learning disability. Differences that are infrequent in the general population are often prescribed a tremendous significance in evaluations of suspected learning disability.

The operational definition of SLD proposed by Flanagan, et al. (2007) requires an evaluation of the relationship between specific academic skills and underlying cognitive processes and abilities. Evaluations which include assessments of broad CHC academic and cognitive ability domains, from within Cattell-Horn-Carroll (CHC) theory, facilitate this process.

The CHC theory is based on a more thorough network of validity evidence than any other contemporary multi-dimensional model of intelligence within the psychometric tradition. It was arrived at by synthesizing hundreds of factor analyses conducted over decades by independent researchers using many different collections of tests.

The Pattern of Strengths and Weaknesses paradigm offers an array of standardized data to *evaluate* a profile to determine if there are c*onceptually and empirically related cognitive and academic weaknesses* that exist in an *otherwise normal ability profile.*

The CHC model is a true hierarchical model covering all major domains of intellectual functioning and appears to offer the most well-founded and reasonable approach to an accepted theory of the structure of cognitive abilities.

Flanagan and her colleagues (2007) expanded the concept of consistency between cognitive and academic deficits. The difference between discrepancy analysis and consistency analysis in evaluating performance is based on understanding the difference between ability and aptitude. Unlike global ability scores, aptitude scores comprise the specific measures of ability that are closely associated with their respective criterion measures. An aptitude is comprised of tests that measure abilities/processes that are most directly relevant to the development and acquisition of specific academic skills and thus is the best predictor of those skills. The presence of a deficiency in a particular cognitive ability or process that is either empirically or logically related to and is the presumptive cause of the observed academic deficits is the most salient aspect of an operational definition of LD. As such, an aptitude-achievement consistency is an important marker for specific learning disability.

A finding of consistency between an individual's reading aptitude and reading achievement, for example, would be a marker for specific learning disability if both reading aptitude and reading achievement were below average. If reading aptitude was average and reading achievement was significantly below average, however, then the possibility remains that factors other than a disorder in one or more basic psychological processes constitute the underlying cause of the academic skill deficiency.

Specific or narrow abilities across many of the CHC areas can be combined to yield specific aptitudes for learning in different areas. These aptitudes are expected to be consistent with their respective academic areas. The relationships between cognitive and achievement skills continue to be validated with current research (see McGrew & Wendling, 2009).

REFER TO APPENDIX A TO REVIEW, IN DETAIL, THE DISCUSSION ON BASIC AND ADVANCED APPROACHES TO THE ANALYSIS OF THE PATTERN OF STRENGTH AND WEAKNESSES USING THE CO-NORMED BATTERIES AND/OR CROSS BATTERY ANALYSIS

10.4 Basic and Advanced Analysis Options for Evaluators

The identification of Specific Learning Disability is moving from a paradigm in which the general populace considered the test analysis to be a simple rule of "a difference of 15 points" for a student with "IQ above 85". Well intended practitioners did not understand that there are a number of reasons why children would be mis-identified or not identified when they should have been under this over-simplified approach. See Appendix A for a detailed technical discussion on these options.

In the paradigm of Pattern of Strength and Weakness, schools may choose to use a basic approach to test analysis or they may apply a more advanced cross battery approach.

Under the basic approach, the student is administered a cognitive and academic measure that are co-normed. Schools may choose the instrument they are using based on preferences and what they deem to be most appropriate to the student and situation. The co-normed measures are then analyzed applying the Aptitude-Achievement Consistency model to constructs of abilities from CHC theory. The guidance offers recommended score ranges as markers of probable disability. All test scores must be reviewed relative to the meaning of the information, and validating other indicators of ability.

With the advanced approach, the student is administered with subtests from a number of different intelligence tests and achievement tests. This is a complex approach for the highly skillful test interpreter who is experienced with broad and narrow band abilities and who understands the research-based relationships of those abilities with academic skills.


Notes of Caution on "Cut Scores" *Do NOT regard the suggested cut scores as absolute values.*

"Cut Scores" are offered as guidance. A student may be regarded as having a weakness when academic skills are <1 standard deviation below the mean. A specific learning disability is a handicapping condition, not low achievement that could be manifested by nearly 1 in 5 people. At least 17% of the general population could be functioning at the level of <1.0 standard deviation below the mean. Therefore, the recommendation was made to consider performance that is <1.5 standard deviations below the mean to be indicative of a learning level that is more likely to identify a true and substantial learning handicap. Whether using the basic or advance analysis model, the committee is recommending the < 1.5 standard deviation criterion for achievement data. HOWEVER, a group must also consider test error ranges and other types of test scores, such as Relative Proficiency Index scores or percentiles, to establish level of academic functioning. The guidance offers recommendations. The professionals doing the work make the best judgments for the students. When examining cognitive skills, scores that are <1.0 standard deviations from the mean were considered sufficient to indicate an area of

weakness. A normal ability profile is identified by at least three cognitive areas that are within normal limits (>-1.0 standard deviations from the mean). It is the interpretation of the total profile that is meaningful in the identification of the specific learning disability.

It is the interpretation of the total profile that is meaningful in the identification of the specific learning disability.

The following table provides a comparison of the Basic and Advanced Pattern of Strength and Weaknesses test analysis approaches.

Table 5. Comparison of Basic and Advanced Models

Basic Model: Woodcock-Johnson III/NU	Advanced Model: Cross Battery
Based on CHC Theory	Draw from 7 major test batteries using CHC Theory
Provides 7 CHC ability cluster scores	Provides 10 CHC cluster scores
Each Broad Ability Cluster includes 2 Narrow Abilities	Clusters of Narrow Abilities can be constructed for in-depth analysis
Cognitive and Achievement Batteries are co-normed	Measures of Narrow Abilities most pertinent to individual's difficulties can be selected
Comprehensive assessment of 8 major academic areas in Federal definition of LD	Comprehensive assessment of 8 major academic areas in Federal definition of LD
Measures all narrow abilities for reading	Narrow Abilities can be combined to yield specific aptitudes for learning in skill areas
Research-supported measures of executive functioning	Classifies >500 tests on the basis of CHC theory
Provides criterion-based scores including Relative Proficiency Index that are useful in planning instruction	Custom batteries for individuals
Provides intra-ability analyses that are useful in planning instruction	Automated and psychometrically defensible interpretation of clusters and ability profile
One co-normed battery offers efficiency of time and cost	Use of subtests from various test batteries can lead to more time and costs

Section 11

Considerations for the Analysis of Pattern of Strengths and Weaknesses

A full and individual evaluation is a problem-solving process strengthened by our willingness to consider all perspectives and possibilities, question and re-question our findings, and view results in the context of the whole child.

-Wayne County LD Committee 2009

11.1 Considerations for the Analysis of Pattern of Strengths and Weaknesses

Merging Response to Intervention (RtI) with our most current understanding of learning disability ties research to practice, involves multiple sources of data, requires collaboration at all stages, and informs individualized instruction. Schools systems have the ingredients to advance the technical quality and the practical utility of their decisions.

At each step of the problem-solving process we gain information that adds to our understanding of the child. Here are some questions and considerations:

Establish Achievement Areas of Normative Strength and/or Weakness

- Is the area of deficit consistent with the teacher's and parent's referral concern?

- Was the area of deficit adequately assessed? Are there component skills (fluency with word recognition and fluency with decoding), additional measures (norm-referenced and/or curriculum-based), informal assessments (reading together), work samples or further sources of data you would like to investigate in order to increase your understanding of the student and the best direction for treatment?

- Were the interventions the child received directed toward the deficit area(s)? Are there any additional interventions you'd like to try before going further?

- Do comparisons across the academic domains indicate a disparity between the student's fluency and acquisition of basic skills, and his/her ability to understand and apply academic knowledge in context that leads to a new direction in assessment/intervention?

  For example, when the student earns lower scores on measures of basic skills, automaticity and fluency, his/her response to specific instruction, repeated practice and accommodations that reduce demands on memory and speed might be especially informative.

  As another example, relative weaknesses are apparent in the application and transfer of skills, a closer examination of the student's language comprehension, fluid reasoning skills and/or long term memory may help pinpoint useful adjustments in the content and level of instruction.

Consider Extrinsic Factors

- RTI is directly concerned with Educational Opportunity; presupposing instruction from a highly qualified teacher targeted toward specific skills and supported by research. Re-examining the data with attention to the child's rate of progress relative to his/her own baseline performance is an indicator of the importance of exposure to specific material and quality instruction.

- Educational Opportunity includes participation in preschool or other early learning programs, adjustment to a formal school setting, moves or changes in schooling, and attendance.

- Regard for the child's Educational Opportunity requires sensitivity to economic conditions, parental health, community awareness, and the numerous environmental stressors families may face. Not all families have access to early learning programs, transportation, adequate health care, or community resources. They may be struggling to cope with significant emotional stress, battling illness or meeting basic survival needs.

- Did the testing conditions (rapport, privacy, absence of distraction, lighting, etc.) support the student's "best" performance?

- Were there any situational factors, such as a recent loss, preoccupation with conflict or distress, or an uncharacteristically poor mood that lead you to question the validity of the results?

and Intrinsic Factors

- A past history of health problems, or an ongoing medical condition could have a lasting impact on a child's growth as well as short-term effects on energy, concentration, memory, physical comfort, or attendance. Is the child taking any medications that might cause fatigue, mood changes, or slowed processing? Does the student typically sleep well, and get adequate nutrition?

- Similarly, it is important to consider how past and/or current hearing or vision problems impact the student's learning.

- Are there pressing worries about the child's motivation and self-confidence? When did the student begin to express negative feelings about school or avoid

work? Is he/she often reluctant to participate in classroom activities or engage with others? Are there any particular interests and activities in school that instill pride and satisfaction?

- Does the child's performance appear to vary with changes in mood, feelings of overwhelming anxiety or periods of profound sadness that raise concerns about his/her emotional adjustment?

- To what degree does the student's impulse control or ability to regulate attention appear to impact their performance? Do high levels of distractibility, over-activity, mental fatigue or a pressured pace warrant further concern?

- Cultural and familial traditions, values and social expectations shape our learning experiences, and acquisition of knowledge. An appreciation of these differences leads to a better understanding of the child's learning style (e.g. preference for group vs. independent activity; written vs. oral expression).

- How are particular difficulties with listening comprehension, oral expression, vocabulary and/or general academic knowledge related to the student's English Language Proficiency (vs. a possible language impairment).

Establish Cognitive Strengths and Weaknesses Relative to Age Norms and Same-Age Peers

- Is there evidence of a processing deficit consistent with the prevailing definition of specific learning disability?

- Is the processing deficit consistent with the concerns at home and in the classroom? Do you need more information to help understand the specific nature of apparent processing difficulties? Would observing a particular type of activity, examining work samples, taking another look at historical data, talking further with the classroom teacher, using rating scales, or administering additional tests expand the team's understanding of how the student appears to think through problems, acquire and store knowledge, and manage demands on attention and organization?

- Do the results reveal processing strengths that indicate intact functioning in areas that would not be expected to be affected by the disability?

- Were the interventions the child received intended to build areas of apparent weakness and/or capitalize on apparent strengths? In light of additional information, are there other targeted interventions the team would recommend?

Critical Test Pattern Analysis

- Does research support a causal link between the processing deficit and the academic deficit? Is the deficit area consistent with the referral concern?

- Does research support a logical relationship between the child's cognitive strengths and the areas of greatest academic growth.

- Are broad developmental delays apparent; deficits of more than one and a half standard deviations below the mean across multiple areas of cognitive processing and academic achievement?

- Did the pattern analysis take into account what we are learning about the changing relationship between cognitive factors and academic performance associated with age and stage of development?

  For example, auditory processing skills, working memory and naming facility have the strongest correlations with reading achievement in the elementary school years. As the student gets older, the relationship between crystallized knowledge, including; verbal reasoning, vocabulary, and general information and reading achievement strengthens. Crystallized knowledge also assumes an increasingly important role in the development of math skills with age. Processing speed and efficiency are closely tied with math achievement at all ages, but the strongest relationships emerge during elementary school.

- Current research places a particular emphasis on the relationship between language development and learning disabilities in reading, writing and math. Findings indicate language-based deficits occur with greater frequency than deficits in non-verbal processing among people with learning disability.

- Does the examiner have a good understanding of the child's language, including; the progression from early milestones to current functioning, and the

relationships between listening comprehension vs. reading comprehension, spoken language vs. written language, and the understanding of word meanings vs. naming facility?

Are results characteristic of students with learning disability or do they raise concerns about a more global language impairment? Is further consultation and/or assessment by a speech/language pathologist needed?

Consider Extrinsic and Intrinsic Factors

The interplay among factors; physical behaviors, emotions, language, attention, cognition and academic skill development is complex. We know that specific learning disabilities often co-exist with other disruptions or differences in development (i.e. pre-natal and post natal complications, emotional trauma, language delay, ADHD, Tourette syndrome, Autistic Spectrum disorders, etc.) Designating a single cause or a single solution for a student's struggles in school would seem highly unlikely and short-sighted.

- Do the patterns and the information accumulated up to this point suggest that a specific learning disability is the primary cause of the student's failure to achieve and/or make sufficient progress?

- Is additional information needed from the student, his/her parents or the child's teacher? Is further observation or assessment necessary to help clarify the "primary cause"?

- Do significant concern about the impact of extrinsic and intrinsic factors indicate the need to consider other areas of disability, review existing evaluation data (REED), and involve additional staff?

Application to Activities of Daily Living that Require Reading, Math or Writing

When **professional judgment** and the weight of evidence indicate a specific learning disability, the team must discuss the impact of the disability on the child's daily experiences, and his/her functioning at school and in the community.

- Does a broad survey of current and historical information (early development, previous educational experiences, progress reports, prior evaluation results, etc.) add together to strengthen each team member's appreciation of the whole child, and provide clear direction for planning, setting expectations, delivering instruction and attaining the skills he/she needs to reach grade-level standards?

- Does the disability affect the child's level of independence, ease with routines and transitions, participation in classroom activities, or ability to follow directions and carry out tasks in school or at home?

- Does the student's disability clearly impact his/her performance on state, district and teacher-made tests, quarterly grades, and ability to complete daily assignments?

- Does the disability impact the student's judgment, impulse control, social skill or ability to regulate attention?

- Is the impact of the disability on the child's self-esteem and/or emotional adjustment a concern? Are feelings of frustration, anger, sadness or shame impeding his/her engagement in learning or relationships with peers and adults?

- Does the student's disability limit his/her opportunity to participate in extracurricular activities and organizations, enjoy recreation, or choose electives that expand on interests and strengths?

Section12

Wayne County
Pattern of Strengths and Weaknesses
Decision Process

"…cognitive abilities are measures of achievements, and measures of achievements are just as surely measures of cognitive abilities"

-John L. Horn

12.1 Wayne County Pattern of Strengths and Weaknesses Decision Process

<table>
<tr><th>Consideration</th><th>Task Description</th><th colspan="5">Measurable Normative Ranges</th></tr>
<tr><th>Steps</th><th>Area</th><th>Normative Deficit</th><th>Normative Weakness</th><th>Normal Limits</th><th>Normative Strength</th><th>Normative Exception</th></tr>
<tr><td rowspan="3">Step1:
Begin with a Profile of Normative Score Ranges
Begin by assuming strength and normally occurring variances across student skills.</td><td>Standard Deviations</td><td>-< 2.0</td><td>- <1.0 to -2.0</td><td>-1.0 to +1.0</td><td>+ 1.0 to +2.0</td><td>+>2.0</td></tr>
<tr><td>Standard Scores</td><td><-69</td><td>70 - 84</td><td>85-115</td><td>116-130</td><td>+131</td></tr>
<tr><td>Percentiles</td><td><2</td><td>2-15</td><td>16-84</td><td>85-98</td><td>98+</td></tr>
<tr><td>Step 2:
Using Curriculum-Based Measures, Establish Relative Standing In Comparison to Peers in IDEA Achievement Area
*Note: Measurement of repeated underachievement should be accompanied by documented instructional interventions for at least 9 weeks.</td><td>Identify the academic performance level of the student using progress monitoring and/or curriculum based measurement, as defined by the instructional program of the school.</td><td colspan="2">THE CLASSROOM EVIDENCE OF ACHIEVEMENT WEAKNESSES
Repeated Measures < 10th Percentile on Curriculum Based Measure
AND/OR
Repeated Measures At/Below 50% Proficiency Target for the Specific Skill</td><td colspan="3">THE CLASSROOM EVIDENCE OF ACHIEVEMENT STRENGTHS

Establish Performance Consistency with Consistency with Performance Levels of Peers
AND/OR
Benchmark Targets

Identify normative strengths that will support instructional planning for the student.</td></tr>
<tr><td>Step 3:
Review Quality of Curriculum Measurement</td><td>Establish the reliability, validity, and relevance of the available measures progress and performance in the curriculum.</td><td colspan="5">1. Do the test items align to the pacing of the content in the grade level curriculum?
2. Is the difficulty of the test items aligned to classroom performance targets?
3. When using measures based on teacher judgment (i.e., rubrics, leveled readers, ratings) is the teacher scoring consistent with the scoring of another independent rater?
4. Did repeated measures include a minimum of 12 probes on specific skills?</td></tr>
<tr><td>Step 4:
Consider Extrinsic and Intrinsic Factors</td><td>Consider the range of possible explanations other than a disability within the student that could explain their performance level.</td><td colspan="5">Intrinsic Factors: Health, Sensory, Attention, Motivation, Emotion, Limited English, Other Handicapping Conditions
Extrinsic Factors: Education Opportunity, Fidelity of Implementation of Interventions, Teacher Qualifications, Data Integrity

If extrinsic or intrinsic factors explain performance, revisit REED to identify other areas of suspected handicap. Student may or may not have a suspected Learning Disability. Other conditions may or may not also exist and may require instructional planning/accommodation.</td></tr>
</table>

<table>
<tr><th>Consideration</th><th>Task Description</th><th>Normative Deficit <2.0 SD</th><th>Normative Weakness <1.0 SD</th><th>Normal Limits -1.0 - +1.0 SD</th><th>Normative Strength +1.0 - +2.0 SD</th><th>Normative Exception >2.0 SD</th></tr>
<tr><td>Step 5- Part A:
Establish Achievement Areas of Strength and/or Weakness Based on 1 or More Normative Measures that Incorporate a Minimum of 2 Subtests within IDEA Achievement Area</td><td>Use 1 or more tests in the achievement area.

Look for the pattern of academic skills across normative levels.

Identify the cluster(s) of skills that emerge as strengths.

Identify the cluster(s) of skills that emerge as weakness/deficit based on normative data.</td><td colspan="2">THE NORM-REFERENCED EVIDENCE OF ACHIEVEMENT WEAKNESS

< - 1.5 Standard Deviation
< 78 Standard Score
< 7 Percentile
AND/OR
<67/90 RPI

*Note: This recommended score range is NOT sufficient evidence to identify a learning disability. The team must consider test error along with all other data and information sources.</td><td colspan="3">THE NORM-REFERENCED EVIDENCE OF ACHIEVEMENT STRENGTHS

Establish Consistency of Achievement Skills Across Normative Levels

Identify the normative strengths among academic skills that will validate classroom indicators and shape the total profile of student learning and ability.</td></tr>
<tr><td>Step 5 – Part B
Option:
Explanation for use of Relative Proficiency Index (RPI) and developmental achievement data instead of standard score data.</td><td>Different skills emerge at different ages. Look at developmental level data, such as RPI scores, that will indicate how the individual compares to age-mates in learning the skill.</td><td colspan="5">Considerations for Emphasizing RPI and Other Developmental Data: Standard Score may be >-1.5 Standard Deviation IF the following conditions are documented:
1. RPI is <67/90 on 1 or more norm referenced tests (2 subtests) within IDEA area
2. Response to Intervention trials of no less than 9-12 weeks
3. Documentation of fidelity of Response to Intervention
4. Repeated measures document proficiency at <50% proficiency (benchmark) target and/or proficiency below the 10th percentile on repeated measures of target skills.
5. Deficits of cognitive and academic skills exist in an otherwise normal ability profile</td></tr>
<tr><td>Step 6:
Consider Extrinsic and Intrinsic Factors That May Explain the Achievement Scores</td><td>Consider the range of possible explanations other than a disability within the student that could explain the performance level(s).</td><td colspan="5">Intrinsic Factors: Health, Sensory, Attention, Motivation, Emotion, Limited English, Other Handicapping Conditions
Extrinsic Factors: Testing Conditions, Education Opportunity, Social Economic Status, Fidelity of Implementation of Interventions, Teacher Qualifications, Data Integrity

If other extrinsic or intrinsic factors explain performance, there is not sufficient evidence to regard the student as a person with a specific learning disability.</td></tr>
</table>

<table>
<tr><th>Step</th><th>Task Description</th><th>Normative Deficit <2.0 SD</th><th>Normative Weakness <1.0 SD</th><th>Normal Limits -1.0 - +1.0 SD</th><th>Normative Strength +1.0 - +2.0 SD</th><th>Normative Exception >2.0 SD</th></tr>
<tr><td>Step 7:
Establish Normative Cognitive Strengths and Weaknesses Based on Cattell-Horn-Carroll (CHC) Clusters of Cognitive Abilities</td><td>Analyze cognitive cluster scores using a minimum of 2 subtests per cluster.

Identify the CHC cluster(s) of skills that emerge as strengths.

Identify the CHC cluster(s) of skills that emerge as weakness/deficit based on normative data.</td><td colspan="2">THE NORM-REFERENCED EVIDENCE OF COGNITIVE WEAKNESSES

< 1.0 Standard Deviation
<85 Standard Score
<15 Percentile
AND/OR
<67/90 RPI

*Note: This recommended score range is NOT sufficient evidence to identify a learning disability. The team must consider test error along with all other data and information sources.</td><td colspan="3">THE NORM-REFERENCED EVIDENCE OF COGNITIVE STRENGTHS

Identify the normative strengths among cognitive skills that help to explain learning strengths and develop instructional planning.

A Normative Strength is 1 cognitive area

>-1.0 to +2.0 SD
>85 Standard Score
>15 Percentile
>75/90 RPI</td></tr>
<tr><td>Step 8:
Consider Extrinsic and Intrinsic Factors</td><td>Consider the range of possible explanations other than a disability within the student that could explain the performance level(s).</td><td colspan="5">Intrinsic Factors: Health, Sensory, Attention, Motivation, Emotion, Limited English, Other Handicapping Conditions
Extrinsic Factors: Testing Conditions, Education Opportunity, Social Status

If other extrinsic or intrinsic factors explain performance, student is not Learning Disabled.</td></tr>
<tr><td>Step 9:
Establish Pattern of Ability/Achievement Consistency Across Cattell-Horn-Carroll (CHC) Clusters</td><td>Analyze test cluster patterns to determine the alignment of the area(s) of cognitive weakness to the achievement area(s) of weakness/deficit.</td><td colspan="2">PATTERN OF COGNITIVE-ACHIEVEMENT WEAKNESS

Minimum of 1 cognitive cluster aligned to a minimum of 1 achievement area(s) that represent a circumscribed learning deficit.</td><td colspan="3">PATTERN OF COGNITIVE-ACHIEVEMENT STRENGTH

Establish how the student profile is representing the cognitive and achievement areas that are normative strengths.

Are the cognitive strengths consistent with the academic strengths?</td></tr>
</table>

Consideration	**Task Description**	***Essential Analysis Questions***
Step 10: Critical Test Pattern Analysis Questions	Think about how the test patterns fit together based on research, psychometric analysis, logic, and other information about the student.	*1.) Is the potential presence of a normative deficit in a specific cognitive ability related to the observed academic deficit?* *2.) What is the logic or empirical evidence that the cognitive deficit is causally linked to the academic deficit?* *3.) Is the deficit consistent with the concerns at home, in the classroom, and other information sources?*
Step 11: Establish Whether or Not an Otherwise Normal Ability Profile Exists	Combine the measurement data, using test analysis procedures, research reference, and logic to answer this essential question.	*Do the deficits in academic and cognitive abilities exist within an otherwise normal ability profile?* A Normal Ability Profile is defined as 3 or more cognitive areas >-1.0 SD to +2.0 SD >85 Standard Score >15 Percentile >75/90 RPI
Step 12: Application to Activities of Daily Living that Require Reading, Math, or Writing	Review of student educational functioning, including : • Classroom Observation – evidence of disability in class performance - Required • State Assessment Performance (MEAP) • Grades • Additional Classroom Assessment Data • Results of Prior Evaluations • Evidence of hindrance in school, work, social, or recreational activity explained by deficit	

Section 13

Examples of
Pattern of Strengths and Weaknesses
in
Specific Learning Disability Areas

"The intelligent design of assessments does not come from a higher power—it comes from integrating the research … with professional and clinical experience."

-Kevin McGrew

13.1 Examples of Pattern of Strengths and Weaknesses in Specific Learning Disability Areas

The following graphic portrays the constellation of academic and cognitive skills that are considered when establishing a pattern of strength and weakness. The profile of normative test data and presenting information are analyzed for goodness of fit to research-based subtypes of specific learning disability. Academic area deficit is identified by normative deficit that is approximately 1.5 standard deviations or more below the normal range or, using Developmental Data, a Relative Proficiency Index less than 67% of age proficiency. Cognitive weakness is identified by evidence of Carroll-Horn-Cattell cluster scores that are approximately 1.0 or more standard deviations below the normal range. Academic and cognitive skills are analyzed by patterns of consistencies in the skills that describe the learning deficit. The normative strengths are then examined to complete the profile of the student's learning abilities. Again, the consistencies among academic and cognitive skills are established. The profile of strengths and weaknesses are then analyzed relative to evidence of normative strengths in general abilities. The test data analysis are then validated by considering the multiple measures of student performance from parent input, teacher report, classroom measures, educational history, and other evidence of learning patterns. The outcome of the analysis must always be focused on educational relevance and lead to instructionally appropriate recommendations.

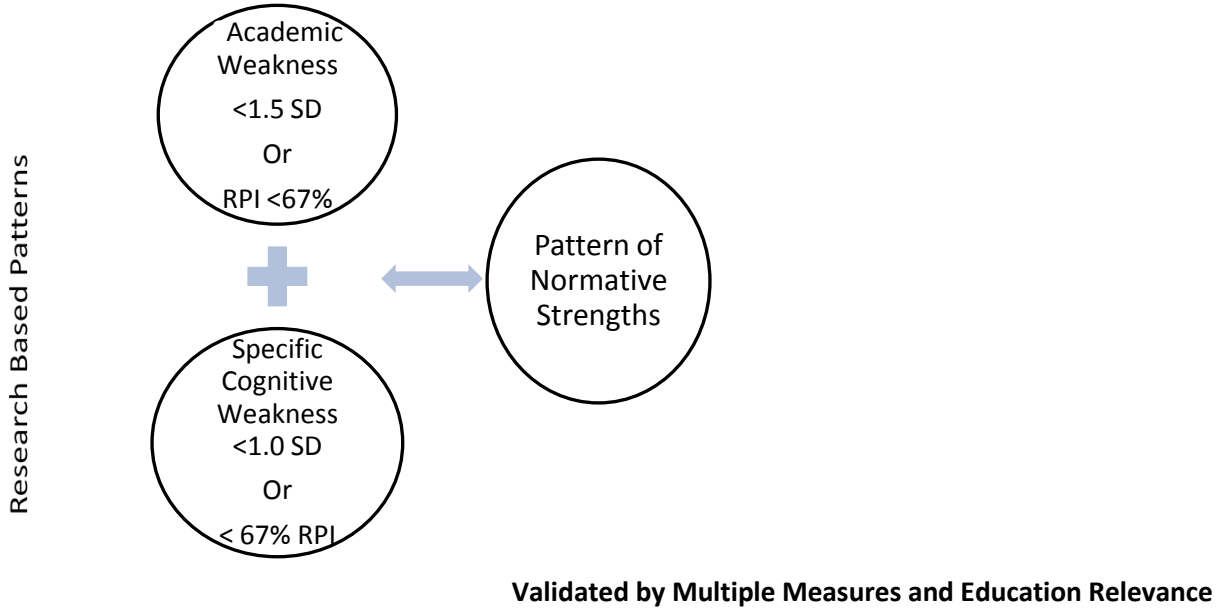


Figure 5. Model for analysis of pattern of strengths and weaknesses based on validity studies of specific learning disability.

The following graphic represent the patterns of strengths of weaknesses among academic and cognitive skills that have been established in research on types of learning disability and on validity studies on the relationship of academic skills to clusters of cognitive skills that align to the Cattell-Horn-Carroll (CHC) model of intelligence and cognition.

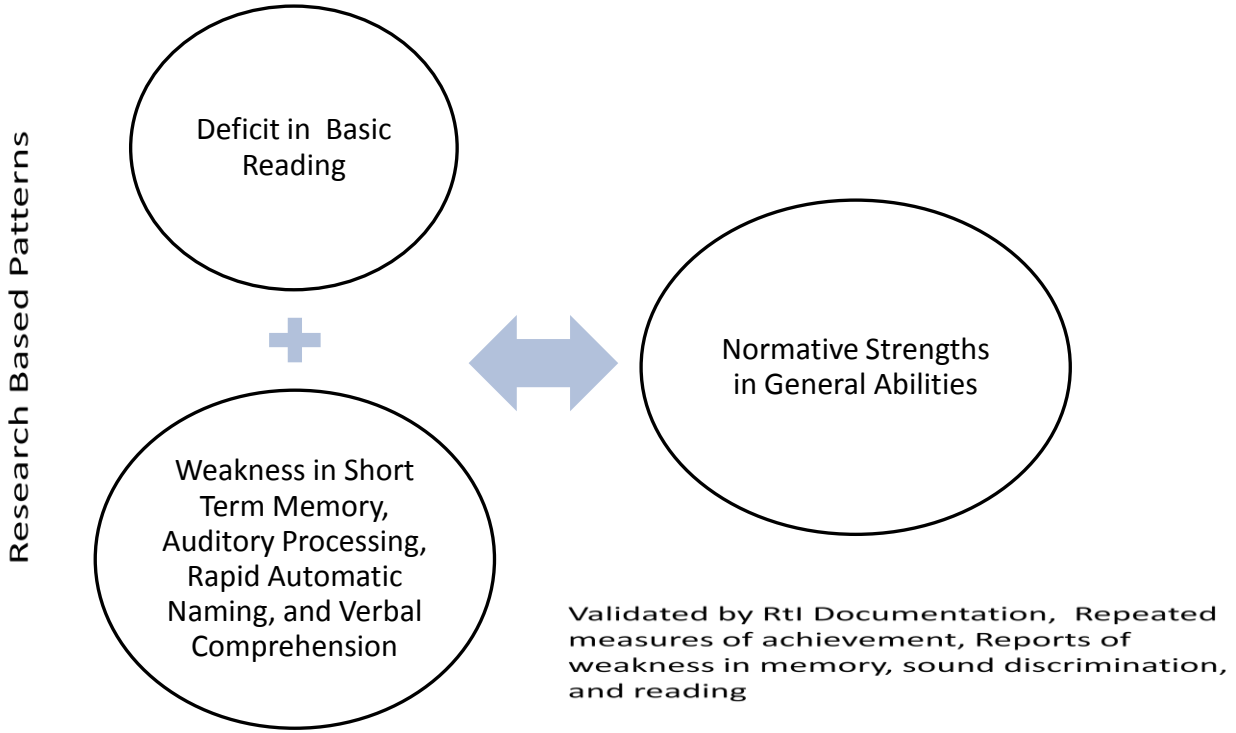


Figure 5. Example pattern of specific learning disability in basic reading.

Applying this model to the analysis of patterns of strength and weaknesses involves many considerations, including evidence from validity studies on specific learning disabilities, subtypes, age factors, and educational implications. The following table summarizes characteristics of Specific Learning Disabilities from validity studies of cognitive and achievement patterns. The summary is intended to serve as an example of considerations in conducting an analysis of patterns of strengths and weaknesses.

Table 7. Example Profiles of Specific Learning Disabilities: Pattern of Strengths and Weaknesses and Educational Considerations

Specific Learning Disability	Deficit in Achievement Area	Weakness in CHC Cognitive Area	Other Indicators Validating Evidence	Age Considerations	Educational Considerations
Basic Reading **Definition:** A learning disability in basic reading is characterized by difficulties in basic letter and word identification skills.	Basic Reading Word Identification	Short Term Memory, Auditory Processing, Rapid Automatic Naming, Verbal Comprehension	Slow reading rate. Weaknesses in sound discrimination and memory. Slow rate of performance. Does not read accurately at grade benchmarks	**6-8:** Short term memory plays moderate relationship to reading difficulties. **9-20**: As students get older, verbal comprehension skills are strongly related to basic reading skills. Short term memory continues to be related to basic memory skills. **17+:** Visual spatial reasoning skills related to basic reading deficits with adults.	Direct instruction of letters and words. Decoding skills Train automatic recognition of common high frequency words. Strategies to improve immediate recall of words and images.
Reading Fluency **Definition:** Reading fluency is the ability to read accurately and quickly. In the context of specific learning disability identification, this achievement area refers to subtypes commonly referred to as Phonological Core Deficit.	Reading Fluency Reading Rate Reading Accuracy	Long Term Memory, Short Term Memory, Auditory Processing, Processing Speed Is not related to General Intelligence or Verbal Comprehension.	Difficulty with decoding skills. Slow reading rate. *May be associated with disability in Math Calculation, fact fluency subtype.*	**6-8:** Period of rapid acquisition of reading fluency skills. Moderate relationship to skills long term memory, short term memory, and auditory processing. Most students respond to explicit direct instruction. **9-12:** Strong correlation with Verbal Comprehension. Moderate relationship to short term memory. **13+:** Increasing relationship to verbal comprehension.	Direct instruction in learning to read accurately and quickly with expression develop letter-sound fluency, irregular word fluency, oral reading fluency provide repeated oral reading practice

Specific Learning Disability	Deficit in Achievement Area	Weakness in CHC Cognitive Area	Other Indicators Validating Evidence	Age Considerations	Educational Considerations
Reading Comprehension **Definition:** A learning disability in reading comprehension is characterized by limitations in the ability to understand the meaning of words and passages.	Reading comprehension May be oral reading and/or silent reading activities, as appropriate to age, grade, or state standard benchmarks.	Verbal Comprehension, Long Term Memory, Processing Speed, Fluid Reasoning	Slow reading rate. Errors in accuracy of reading complex material. Difficulty retaining information and dealing with length of text. May be associated with Basic Reading Deficits.	**6-8:** Moderate relationship to auditory skills at young age. Memory factors moderately correlated with reading deficits. **9-12:** Strong correlation with verbal comprehension. Short term memory continues to be moderately related to reading comprehension. **13+:** Relationship to verbal comprehension increases through adolescence.	With young children, multiple exposures to words, language, and print material. Across age levels: Guided reading. Activation of prior knowledge. Pre-teaching of vocabulary and concepts. Reading strategy lessons.
Math Calculation (General) **Definition:** A learning disability in math calculation generally refers to deficits in the ability to count and to perform basic mathematical operations.	Math calculation skills for basic operations of addition, subtraction, multiplication, and division	Fluid Reasoning, Long Term Memory, Processing Speed, Auditory Short Term Memory	Counting errors. Counting strategies are those of developmentally younger child. Difficulty with basic number and operations content standards. Difficulty with visual reasoning tasks. Student does not recall math facts.	**6-8:** Moderate relationship to short term memory and long term memory skills. **9-12:** Verbal comprehension skills become more strongly related to math calculation than at younger age. Moderate relationship of processing speed, fluid reasoning, and short term memory to calculation ability. **13+:** Short term memory is less important. Verbal comprehension has moderate correlation. **17+:** Short term memory	Activities to improve memory of numbers, ordering, and procedures. Speeded recall trials. Counting strategies. Manipulative learning tools. Applications of calculations to real world situations. Even with calculators, use instructional supports for reasoning and application of rules.

Specific Learning Disability	Deficit in Achievement Area	Weakness in CHC Cognitive Area	Other Indicators Validating Evidence	Age Considerations	Educational Considerations
Math Calculation **(Math Fluency Subtype)** **Definition:** Math Fluency Subtype of Math Calculation Disability is characterized by difficulties retrieving math facts and, when retrieved, there is a high error rate. This subtype is often also referred to as the "Semantic Memory Subtype".	Math Calculation Poor math fact fluency as measured by rate and accuracy of performance with math facts.	Long Term Retrieval, Auditory Processing, Short Term Memory, Processing Speed	Student is inaccurate with basic math operations. Student is slow with completion of math calculation problems. Student does not accurately recall math facts. May be associated with Basic Reading Deficits.	This subtype of Math Calculation disability does not improve with age.	Use of calculators. Training on compensatory strategies.
Math Reasoning **(General)** **Definition:** Students with Learning disability in applied math skills have difficulty solving math problems that involve using math computation to solve real world problems.	Math Reasoning	Fluid Reasoning, Long Term Retrieval, Verbal Comprehension	Difficulty with inferential reasoning. Difficulty retrieving math facts. Difficulties with verbal reasoning. May be associated with math calculation deficits.	**6-8:** Moderate relationship to short term memory and long term memory. **9-12:** Increasing relationship of fluid reasoning, verbal comprehension, and short term memory to math reasoning. **13+:** Strong relationship of fluid reasoning to math reasoning. Declining role of short term memory.	Direct instruction of math facts. Activities that emphasize inferential reasoning. Instruction that provides experience with concepts of properties and relationships that apply to mathematical solutions.

Specific Learning Disability	Deficit in Achievement Area	Weakness in CHC Cognitive Area	Other Indicators Validating Evidence	Age Considerations	Educational Considerations
Math Reasoning **(Procedural Math Disability Subtype)** **Definition:** This math disability subtype is characterized by the student's relatively frequent use of developmentally immature procedures with frequent errors in the execution of procedures.	Math Reasoning Features: (1) The ability to follow sequential directions when applied to abstract and math concepts; (2) The ability generalize and apply understood classifications; (3) to order, organize, and sequence quantitative ideas; (4) to have a command of spatial orientation and organization; (5) to understand and employ estimation; (6) to visually cluster objects; (7) to recognize and extend patterns; (8) to visualize quantitative ideas; (9) to think deductively; and (10) to think inductively- easily seeing patterns in situations, and interrelationships between procedures and concepts.	Executive Functioning, Verbal Comprehension, Fluid Reasoning, Long Term Memory	Counting errors. Student applies strategies that are developmentally immature for counting and math solution. Difficulties sequencing steps in complex procedures. Frequent errors in the execution of math procedures. Poor understanding of concepts underlying procedure use.	**6-8:** Most apparent with young children, as observed in the strategies they spontaneously employ to count and order operations. **9-12:** With most students, there is improvement with age and grade. Persistence of deficits with age with relationship to verbal comprehension and fluid reasoning. **13+:** Improvements with age and grade. Difficulties may persist with complex higher order math courses.	At young ages, direct instruction on basic computation numbers, operations, and relationships. Rehearsal of math procedures and steps. Instruction of math concepts that demonstrates essential components to patterns and relationships in math problems. Compensatory strategies adhering to sequential directions.

Specific Learning Disability	Deficit in Achievement Area	Weakness in CHC Cognitive Area	Other Indicators Validating Evidence	Age Considerations	Educational Considerations
Nonverbal Learning Disorder **Definition:** The disorder is characterized by impaired abilities to organize the visual-spatial field, adapt to new or novel situations, and/or accurately read nonverbal signals and cues. The student will have difficulty "producing" in situations where speed and adaptability are required. *Not one of the 8 IDEA LD areas. Often is identified as a math or language disability, if not as version of Autism Spectrum Disorder.*	Reading Comprehension AND Math Calculation AND Math Concepts AND Language Skills, Pragmatics, Semantics, and Prosody	**Weaknesses:** Fluid Reasoning, Short Term Memory, Visual-Spatial Thinking **Strengths:** Verbal Comprehension, Auditory Processing, Basic Reading	Poor social judgment, often missing subtle non-verbal social cues in communication. Difficulty with math calculation, math reasoning, and reading comprehension. Inflexible. Often associated with Asperger's Syndrome and there are some who believe NLD is a form of ASD.	The condition worsens with age. The student becomes more impaired in social functioning, academic performance, and less adaptive.	Lesson scaffolds that provide organizational and semantic structures to support student learning. Development of instructional plans with instructional and ancillary service providers that support language/social cues and academic learning.

Specific Learning Disability	Deficit in Achievement Area	Weakness in CHC Cognitive Area	Other Indicators Validating Evidence	Age Considerations	Educational Considerations
Written Expression **Definition:** The student's ability to communicate in writing is substantially below grade expectations. This disability affects both the physical reproduction of letters and words and the organization of thoughts and ideas in written compositions. The disability area most likely represents a constellation of disabilities that may be further sub-typed in future research.	Written expression Not to be limited to deficits in spelling. The deficit is typically characterized by deficit in the ability to express ideas in writing.	Long-Term Memory, Auditory Processing, Processing Speed, Executive functions May also include grapho-motor features.	Student has difficulty retrieving words in spontaneous writing. Student has substantial difficulty with organizing thoughts for the production of writing. Fine motor coordination may be implicated for difficulties in letter formation. May be associated with Basic Reading Disability.	**6-8:** Observed in spelling errors and limited production of words and sentences on paper. Ortho-graphic features to writing. Memory for words and memory for sounds in words. **9-12:** As grade level writing demands increase, the written expression deficits become more apparent. Organization and long term memory skills of increasing relationship to writing. Memory of words, writing structures, and ideas. **13+:** Grapho-motor features less important. Skills for verbal comprehension, organization, reading, and language of increasing emphasis.	The most complex academic skill to teach and learn. At young ages, explicit instruction of basic skills for reading and for the production of words in print is fundamental. All ages, instruction on language structure and examples of writing. Use of graphic representations to support memory and to structure organization.

Specific Learning Disability	Deficit in Achievement Area	Weakness in CHC Cognitive Area	Other Indicators Validating Evidence	Age Considerations	Educational Considerations
Listening Comprehension **Definition:** Learning disability in listening comprehension typically refers to a developmental disorder in the understanding of spoken language that aversely impacts academic learning.	Listening Comprehension Refers to the ability to comprehend spoken language.	Auditory Processing, Verbal Comprehension, Short Term Memory, Long Term Memory, Fluid Reasoning	Student does not follow directions. Student is confused by auditory directions. May be associated with deficits in Basic Reading, Math Reasoning, Reading Comprehension, and Oral Expression.	In young children, listening comprehension may impact acquisition of skills for learning sounds in words and language components foundational to reading.	Typically addressed through the services of the Speech and Language Pathologist. Direct training on sound and meaning of words in isolation and in context of meaningful communication.
Oral Expression **Definition:** The student has difficulty formulating age appropriate verbal responses. The hallmark feature to a learning disability in oral expression is the adverse impact on academic performance.	Oral Expression Refers to the ability to express ideas so that they are understandable.	Verbal Comprehension, Long Term Memory	Oral expression interferes with acquisition of basic skills. May be associated with deficits in Reading Fluency, Reading Comprehension, and Written Expression, and Listening Skills.	Many young children get identified for speech and language services. As they reach middle years and academic skills fail to develop at expectation, their eligibility is changed to represent the impacted achievement area.	Typically addressed through the services of the Speech and Language Pathologist.

Section 14

Final Considerations in Specific Learning Disability Identification

"In the hybrid model…an evaluation of LD requires an assessment of RtI, norm-referenced assessments of achievement, and an evaluation of contextual factors and associated conditions that may explain the achievement problem and, most important, suggest alternative intervention needs that differ from those that directly address achievement issues through instructional methods."

-Fletcher, Lyon, Fuchs, Barnes (2007)

14.1 Final Considerations in Specific Learning Disability Identification

Referring to the Wayne County model for the identification of Specific Learning Disability, the purpose of the evaluation is to surround the student of concern with the best and most comprehensive information possible to make a valid and appropriate recommendation as to the student's instructional program. Having completed the essential requirements to understand the learner and the context of learning for the individual, the team must apply their knowledge and interpretation of the multiple sources of data to make their best judgments as to the existence of the handicapping condition and the instructional interventions the student will require to progress in the general education curriculum.

QUESTIONS TO CONSIDER

- ☐ Does the student achieve at State standards for grade?
- ☐ Is the learning deficit observed by an independent rater in the classroom in which instruction is delivered?
- ☐ Are there other factors that explain the learning deficit?
- ☐ What is the learning improvement trend for the student with instruction?
- ☐ What is the learning level of the student when compared to expectations for the age/grade of the general education program?
- ☐ What is the evidence of a pattern of normative specific deficits in a profile of a student with normative strength?
- ☐ How does the parent's report describe the student's development, life experiences and the learning patterns observed in the home?
- ☐ How does the teacher's report describe the instructional program, the student and the learning patterns?
- ☐ What does other evaluation information tell us about the student?
- ☐ How is the student succeeding in current classroom instruction?
- ☐ Was the student given opportunities to acquire skills using a process of instructional interventions?
- ☐ Are normative achievement deficits evidenced with other measures of achievement?

Section 15

Sample Report Using RtI

and

Pattern of Strengths and Weaknesses

"I couldn't read. I just scraped by. My solution back then was to read classic comic books because I could figure them out from the context of the pictures. Now I listen to books on tape.

-Charles Schwab

15.1 Sample Report Using RtI and Pattern of Strengths and Weaknesses

District
FULL AND INDIVIDUAL EVALUATION SUMMARY

Student Name: Michael
Gender: M
Age: 8 years, 2 months
Grade: 2

Briefly Summarize the Conclusion of the Multidisciplinary Team

Based on full and individual evaluation findings, it is the team consensus that Michael is eligible for special education services with a specific learning disability in the areas of basic reading and written expression. Student's rate of progress (.83 words per week) and current level of discrepancy (below the 10th percentile) are both significantly discrepant from peers with measures of his response to intervention. Using standardized assessments, specific deficits in basic reading, written expression, auditory processing, phonemic awareness, and working memory are present in an otherwise normal ability profile. The student's lack of response to intervention is such that he may benefit from specialized instruction. Michael's needs are currently greater than what can be provided in the general education setting.

Parent Comments and Concerns

Michael's parents are concerned about his ability to keep up with his peers in the area of reading.

Educational Strengths

Michael is currently performing at grade level in math.

Achievement strengths were evidenced in normative testing with the Woodcock-Johnson III/NU Tests of Achievement. Consistent with teacher report, math is an area of strength for Michael. Basic math skills are well within normal limits as demonstrated by a standard score of 105. Math reasoning skills are also within normal limits with a standard score of 98.

Reading comprehension skills, as measured with the Woodcock-Johnson III/NU Tests of Achievement were found to be within normal limits, as indicated by a 95 standard score in reading comprehension. Reading comprehension skills were not tested further as there was no evidence of concern from teacher report or from this assessment.

Review of Exclusionary Factors

Health/Vision/Hearing
Health: There are no health related needs identified in Michael's health file.
Vision: Student passed the vision screening in second grade.
Hearing: Student passed the hearing screening in second grade.

English Language
Michael is English speaking. The language in the home is English.

Communication
There are no concerns in the area of communication at this time.

Oral expression and listening comprehension skills were assessed using the Woodcock-Johnson III/NU Tests of Achievement. This normative assessment data confirms the report of no additional concerns in these achievement areas. Michael obtained a standard score of 106 in Oral Expression (93/90 Relative Proficiency Index) and a standard score of 96 in Listening Comprehension (87/90 Relative Proficiency Index). These scores are all within normal limits.

Motor
There are no motor concerns at this time.

Social/Emotional/Behavioral
Formal social/emotional/behavioral assessments were not necessary for this evaluation. Michael's classroom teacher did indicate that he is more on-task in other subject areas than he is in reading. Upon further interview, following the standardized testing, it was learned that Michael tends to lose his train of thought with writing activities. His writing samples are very brief and he makes many spelling errors. There is concern that his academic inattention is attributable to difficulties in processing the demands of written expression.

Cognitive
Michael displays age appropriate skills for personal care. According to parents, developmental milestones were met at expected ages. He is considered, by his teachers and parents, to be a student who comprehends at age/class expectancy. There were no concerns of suspected cognitive impairment identified by the team.

Normative assessment with the Woodcock-Johnson III/NU Tests of Cognitive Abilities identifies a normal ability profile. Cognitive clusters with standard scores within the normal range are listed: Comprehension-Knowledge (94); Visual-Spatial Thinking (119); Fluid Reasoning (105). Other areas of cognitive strength include: Cognitive Fluency (107) and Executive Processes (105).

Attendance
Michael has a history of good school attendance. He has not missed more than 5 days of school in a semester since the first grade.

Culture/Experience Factors
Michael has had expected opportunities to be educated at grade expectancy. He has attended the same school since Kindergarten. There is no evidence of language, culture, or experience factors that would impact negatively learning.

Present Levels of Academic Achievement and Functional Performance - Academic

Michael received supplemental reading services in both Kindergarten and first grade. In addition, he was identified by both fall and winter benchmark scores to receive intensive reading instruction through the Response to Intervention process. This instruction has been in place since September of 2008. This has included 30 minutes of daily instruction focusing on decoding, fluency, and comprehension. Michael's progress has been monitored periodically using second grade AIMSweb Oral Reading Fluency Passages. Fidelity of the intervention has been monitored at bi-weekly team meetings that review data probes and logs of instruction.

In September, Michael was able to read 16 words per minute while peers at the 50th percentile were reading 59 words per minute (using local district norms). In February, a significant change was made to his instruction, when his group size went from four students to two students. Currently, Michael is reading 31 words per minute while peers are reading 94 words per minute. Student gained .83 words per week while typical peers at the 50th percentile gained 1.9 words per week. Michael's progress compared to peers can be viewed on the attached graph.

Michael's progress can also be measured using DRA Reading Levels. In September, Michael was reading at Level 4, while peers at the 50th percentile were reading at the Level 16. Currently, Michael is reading at Level 15, 12th percentile while peers at the 50 percentile are reading at Level 23. Michael gained 5 levels while peers gained 7 levels in the same period of time.

Even with intensive instruction in the area of reading, Michael has not been able to make progress at a rate similar to peers. At his current rate of performance, he is not on track to close the gap with typical peers.

Current Level of Performance Compared to Typical Same Grade Level Peers

Michael's performance compared to grade level peers is reported in the table below. Parents and teachers are reminded that whenever scores are reported, they are but one piece of information about a student.

Assessment: Percentile Rank Based on Comparison to Peers - AIMSweb Grade 2

Assessment Michael's Performance		Performance of Typical Peers
Date	Oral Reading Fluency Passages	Oral Reading Fluency Passages
09/15/2008	16 words per minute <10th percentile	59 words per minute at the 50th percentile
02/15/2009	31 words per minute 12th percentile	94 words per minute at the 50th percentile

Michael is not currently performing near the level expected compared to typical peers. Michael currently receives Tier III reading instruction in a small group setting of two students at his reading level. In addition, he has a guided reading group in his classroom that also has only one other student and instruction is presented at his level. According to his classroom teacher, Michael requires a significant amount of review and re-teaching on a regular basis as he has difficulty retaining and generalizing previously learned skills. In addition, the classroom teacher reports that Michael needs one-to-one assistance for any classroom activity that requires reading.

Current Level of Performance Using Normative Assessments

Achievement Areas

Cluster/Tests	**RPI**	**Standard Score**	**Percentile**
Oral Expression	93/90	106	65
Listening Comprehension	87/90	96	40
Broad Reading	38/90	77	6
Broad Math	96/90	112	79
Broad Written Language	44/90	73	4
Basic Reading Skills	5/90	71	3
Reading Comprehension	85/90	95	37
Math Calculation Skills	93/90	105	64
Math Reasoning	87/90	98	44
Basic Writing Skills	15/90	70	2
Written Expression	77/90	88	22

The Woodcock-Johnson III/NU Tests of Achievement were administered to assess achievement skills on a norm-referenced scale. As described above, normative strengths are found in the areas of oral expression, listening comprehension, reading comprehension, basic math, and math reasoning.

Basic reading ability is an area of significant weakness. When compared to age-mates who perform at 90% proficiency, Michael succeeds with 5% proficiency. Further analysis of test

performance identifies specific weaknesses with Letter-Word Identification (2/90 Relative Proficiency Index) and Word Attack (8/90 Relative Proficiency Index). The test data concurs with the evidence of basic reading difficulties from progress monitoring data sources.

Michael's Broad Written Language score was a substantial weakness as indicated by a standard score of 73, at the 4th percentile. Further analysis of the component writing skills indicated that written expression skills were a strength relative to his basic writing skills. On a grade level written expression task, he can succeed with 77% accuracy compared to 90% accuracy for peers. Basic writing skills are at a standard score of 70 or the 2nd percentile. Basic writing skills include spelling and editing skills.

Due to the limited systematic samples of written expression in the classroom, a second test of writing skills was administered. Michael was administered the Test of Early Written Language (TEWL-2). In the area of Basic Writing, Michael obtained a standard score of 68. This score was consistent with the measure from the Woodcock-Johnson III/NU in basic writing skills. Among the tested skills, he had the most difficulty with spelling. With Contextual Writing, Michael was asked to write a story based on picture prompts. He seemed to have good ideas that he verbally shared with the examiner. In writing, he was much less fluent and he used limited vocabulary and very short sentences. Many errors with spelling were noted. Vocabulary was less than expected for his age. He obtained a standard score of 78. These observations and test scores appear to validate early signs of substantial weaknesses in written expression that involve deficits with word finding and language encoding for print.

There are no additional intrinsic or extrinsic factors that would explain the achievement test score patterns obtained within this evaluation. Test scores are considered to be reliable and valid measures of student abilities.

Cognitive Areas

Woodcock-Johnson III/NU

Cluster/Tests	**RPI**	**Standard Score**	**Percentile**
GIA	80/90	87	19
Verbal Ability	84/90	94	34
Thinking Ability	89/90	97	42
Cognitive Efficiency	55/90	73	4
Comprehension-Knowledge (Gc)	84/90	94	34
Long Term Retrieval (Glr)	82/90	79	8
Visual-Spatial Thinking (Gv)	97/90	119	90
Auditory Processing (Ga)	65/90	72	3
Fluid Reasoning (Gf)	94/90	105	62
Processing Speed (Gs)	92/90	103	59
Short Term Memory (Gsm)	12/90	66	1

Cluster/Tests	RPI	Standard Score	Percentile
Phonemic Awareness	53/90	67	1
Working Memory	34/90	73	3
Broad Attention	69/90	80	10
Cognitive Fluency	93/90	107	69

The Woodcock-Johnson III/NU Tests of Cognitive Abilities were administered to assess cognitive skills. Overall, the Global Index of Abilities is in the low average range, as indicated by a standard score of 87. The pattern of cognitive cluster scores meets the criteria of a normal ability profile. Visual-spatial thinking skills are a substantial strength for Michael, at the 90th percentile. Abilities in the areas of comprehension-knowledge, fluid reasoning and processing speed are strong for age standards.

Scores Comprising Normative Strengths

Comprehension-Knowledge

Test	Relative Proficiency Index	Standard Score	Percentile
Verbal Comprehension	90/90	100	50
General Information	74/90	89	23

Fluid Reasoning

Test	Relative Proficiency Index	Standard Score	Percentile
Concept Formation	91/90	101	53
Analysis-Synthesis	95/90	107	69

Processing Speed

Test	Relative Proficiency Index	Standard Score	Percentile
Visual Matching	92/90	104	60
Decision Speed	91/90	102	54
Rapid Picture Naming	95/90	106	67
Pair Cancellation	96/90	107	69

Visual-Spatial Thinking

Test	Relative Proficiency Index	Standard Score	Percentile
Spatial Relations	96/90	114	82
Picture Recognition	97/90	116	86
Planning	88/90	95	36

Normative and significant weaknesses are observed in the areas of short term memory, auditory processing, long term retrieval skills, phonemic awareness and working memory.

Short Term Memory

Test	Relative Proficiency Index	Standard Score	Percentile
Numbers Reversed	19/90	73	4
Memory for Words	8/90	70	2
Auditory Working Memory	53/90	82	11

In the area of Short Term Memory, Michael obtained a standard score of 66. This score is in the deficient range and is at the 1st percentile. On tasks for short term memory that could be accomplished by classmates at 90% accuracy, Michael would perform with 12% accuracy.

Auditory Processing Skills

Test	Relative Proficiency Index	Standard Score	Percentile
Sound Blending	45/90	70	2
Incomplete Words	61/90	75	5
Auditory Attention	80/90	84	14

Auditory processing skills were at the 3rd percentile, with a standard score of 72. When compared to age-mates, Michael would succeed at 65% proficiency while others are at 90% proficiency. Examination of component skills to auditory processing reveals a deficient level of skill development in sound blending (70 Standard Score). On the Incomplete Words task, performance was at the 5th percentile. Auditory attention skill, while stronger than the sound blending skills, is normatively weak and approximates 1 standard deviation below the mean.

Long Term Retrieval

Test	Relative Proficiency Index	Standard Score	Percentile
Visual-Auditory Learning	60/90	70	2
Retrieval Fluency	93/90	113	82

Long term retrieval skills are more than 1 standard deviation below normal limits and at the 8th percentile. Visual-auditory learning skills are deficient (70 Standard Score) and in sharp contrast to above average retrieval fluency skills (113 Standard Score). This test pattern is further evidence of possible processing deficits in the storage and retrieval of sight-sound associations that are foundational to basic achievement skills.

Phonemic Awareness

Test	Relative Proficiency Index	Standard Score	Percentile
Sound Blending	45/90	70	2
Incomplete Words	61/90	75	5
Sound Awareness	53/90	82	11

Phonemic awareness skills represent a clinical clustering of tests from the Woodcock-Johnson III that are of relevance in understanding a student's learning abilities. For Michael, phonemic awareness skills are at the 1st percentile and at a standard score of 67. His proficiency would be about half that of peers, with a 53/90 relative proficiency index score. Phonemic awareness is measured by tests of sound blending, incomplete words, and sound awareness. As noted earlier, it is the blending of sounds and filling in sounds of words that were especially troublesome for Michael. Sound awareness is a weakness as defined by <1.0 standard deviation from normal.

Working Memory

Test	Relative Proficiency Index	Standard Score	Percentile
Numbers Reversed	19/90	73	4
Auditory Working Memory	53/90	82	11
Auditory Attention	80/90	84	14
Pair Cancellation	96/90	107	69

Michael obtained a standard score of 73 in the cluster area of working memory. This score is at the 1st percentile. Working memory skills are assessed by evaluating the student's performance with tasks of numeral reversal, auditory working memory, auditory attention, and paired cancellation. Michael was high average with the paired cancellation task (107 Standard Score), which relies on visual processing speed and memory. Other measures of memory involved auditory processing and those were the areas that were low relative to normative ranges of performance.

There are no additional intrinsic or extrinsic factors that would explain the achievement test score patterns obtained within this evaluation. Test scores are considered to be reliable and valid measures of student abilities.

Achievement-Ability Consistencies

Consistencies among Areas of Strength

Achievement-ability consistencies are noted among Michaels's strengths in math and noted cognitive strengths. Math calculation ability and math reasoning abilities are associated with strengths in fluid reasoning, processing speed, and visual-spatial thinking. Consistencies are also noted between the report of strengths in classroom math performance and Michael's test performance.

Consistencies are observed among Michael's language abilities. His teacher has noted that there are no communication difficulties in the classroom. Michael performed at normative levels in oral expression and listening comprehension with achievement measures. Among cognitive skills, his scores in verbal ability and comprehension-knowledge clusters align to normative strengths in the communication and verbal areas.

Consistencies among Areas of Weakness

Achievement-ability consistencies represent a substantial weakness in basic reading in combination with weaknesses in phonemic awareness, auditory processing, working memory, short-term memory, and long term retrieval. Essential cognitive skills for basic reading include sound awareness, blending, recall, and association with visual symbols. These consistencies among Michael's skills are representative of a specific deficit in basic reading.

When examining written expression skills, there are more consistencies noted in Michael's profile of strengths and weaknesses. Written expression skills were a substantial weakness for Michael. Examination of component skills reveal that he has problems with spelling and the same components of sound awareness, blending, recall and association of visual-auditory symbols that are essential for reading and for the production of words in print. Just as Michael is not mastering skills to decode words, those same skills are foundational to his ability to encode language in writing tasks.

Existence of Specific Learning Disability in Normal Ability Profile

Analysis of functioning information and cognitive testing indicate that Michael is a student with a profile of normal abilities. There is evidence of specific learning disability in the areas of basic reading and written expression. Normative assessment of reading skills identify below age proficiency. Skills in phonemic awareness, auditory processing, working memory, short-term memory, and long-term retrieval were consistent with the basic reading deficit that is demonstrated in the classroom and in normative assessment. While teacher concerns did not initially identify a concern in the area of written expression, testing identified consistencies among specific written expression deficits that include broad written language skills, consistent with challenges in basic reading, working memory, long term retrieval, and phonemic awareness.

Classroom Observation

Michael was observed in his general education classroom. Students were expected to work independently on a reading task. Michael required a great deal of adult assistance in order to complete the activity required. His teacher reports that he is able to successfully complete tasks independently in subject areas not requiring reading. According to the Reading Interventionist,

Michael's reading is so slow and labored that it is impacting his ability to comprehend what he has read.

Additional classroom observation occurred on 11/10/2008. Michael was observed during an independent writing activity. The teacher read a brief story to the class. The assignment was to write at least three sentences about the story. New words and names were posted on the board. The entire class was given time to work independently on the assignment. Michael took a long time to get started. He often looked at the word wall and the board to find words to copy onto his paper. He took more time than his classmates to complete the assignment. Examination of his writing sample showed that he wrote 3 very short sentences that each consisted of 5 words. Errors were evidenced with 20% of the words. His ideas were congruent to the assigned activity.

Educational Needs

Michael needs to improve his reading skills, specifically decoding and fluency skills. After extensive individualized interventions, it is the recommendation of the team that Michael needs specialized instruction to benefit from the general education curriculum. His reading skills have not improved at the level or rate prescribed by previous intervention trials, with adjustments to his instruction.

Michael also needs to improve his basic written expression skills. As he demonstrates difficulty with reading decoding skills, he also displays difficulties with encoding words to express his ideas in writing.

Working memory skills and phoneme awareness skills are related to these areas of academic difficulty. Michael needs explicit training to increase his memory for auditory information and to teach sound-visual associations that are critical to print.

Instructional Recommendations

Instructional recommendations include specialized instruction with modifications to support Michael's progress in the general education curriculum. Educational interventions will need to continue to support his participation with the core curriculum with direct instruction on basic reading and basic written expression skills.

Learning Based on Strengths

Use visual cues, diagrams, pictures, and icons to support his skill development with print.

Graphic organizers may be used to support building prior knowledge for reading activities and organization of ideas for writing activities.

Allow Michael to talk about his ideas and work with peers to explore ideas and reinforce new information.

Basic Reading
Explicitly teach phonics.

Train on synthetic phonics to teach phonic skills. Suggested programs may include Orton-Gillingham or the Slingerland method.

Provide high interest reading material. Provide phonic clues with unfamiliar words.

Point out letter patterns. Incorporate activities to draw his attention to letter patterns with color coding, circling, or searching for letter patterns.

Have Michael make a word box, like a recipe file, to use as a reference.

Use computer programs for drill and practice of sight words.

Increase reading fluency with the use of graded/leveled text. Practice word drills.

Spelling
Practice spelling on a daily basis. Use only phonically regular words; dictate words and sentences for Michael to write.

Accept phonically correct misspellings while he learns spelling patterns.

Written Expression
Increase writing fluency with non-graded writing experiences on a daily basis (e.g., journals).

Use sentence starters.

Set a goal for the number of words used in the story.

Academic Strategies
Pre-teach words/vocabulary for new text.

To reduce the interference of basic reading deficits with reading comprehension, provide books on tape and readers.

Teach memory strategies to “Picture It”, “Associate It”, and “Review It”. Practice the strategy with words.

Appendix A

Rationale for Basic and Advanced Models of Psychological Assessment and Interpretation

To conduct the analysis of pattern of strength and weaknesses, it will be important to establish the analysis procedure being applied to the test data to make the appropriate decision process considerations. Schools have an option of applying a basic model of analysis or a more advanced cross battery approach to test data analysis. The following discussion is intended to describe these options in technical detail.

Rationale for Basic and Advanced Models for Psychological Assessment and Interpretation

Schools may opt to use one of two models for psychological assessment and interpretation: a basic model in which Flanagan's operational definition for identifying learning disabled students is employed utilizing the Woodcock-Johnson III/NU as the only measure of intellectual functioning or an advanced model in which Flanagan's definition is employed utilizing cross-battery assessment technique.

The Woodcock-Johnson III/NU was chosen as the primary instrument for the Basic Model as the theoretical foundation of the Woodcock-Johnson III/NU is derived from the Cattell-Horn-Carroll theory of cognitive abilities (CHC theory), and it is the only instrument that provides adequate coverage of all seven CHC broad cognitive abilities/processes.

Because each CHC cluster score on the Woodcock-Johnson III NU consists of at least two different, narrow abilities for each of the seven broad cognitive abilities, it can be used effectively to gather information and test hypotheses relative to Flanagan's operational definition of LD.

Additionally, the Woodcock-Johnson III/NU offers numerous procedures for discrepancy analysis. Though these procedures are not pertinent to Flanagan's operational definition for diagnosing LD, useful information is obtained for understanding individuals' difficulties and formulating appropriate interventions.

As the norms for the Woodcock-Johnson III/NU Cognitive Battery and the Woodcock-Johnson III/NU Achievement Battery are based on data from the same sample of subjects, the Woodcock-Johnson III/NU batteries provide the most valid methods for determining patterns of strengths and weaknesses based on actual discrepancy norms. Comparisons among and between a subject's general intellectual ability, specific cognitive abilities, oral language, and achievement scores can be made with greater accuracy and validity than would be possible by comparing scores from separately normed instruments.

While the Woodcock-Johnson III/NU is the most comprehensive intelligence battery in terms of the CHC abilities/processes measured, other intelligence batteries, though less comprehensive, offer unique features that may be important for evaluating certain children. Flanagan describes, for example, that the DAS-II is particularly effective for evaluating preschoolers and the KABC-II is particularly effective for evaluating children who are from culturally and linguistically diverse backgrounds.

Using the advanced model, practitioners are able to combine CHC theory and students' case history information to construct individualized batteries of tests in which subtests from more than one instrument are administered.

In the Cross-Battery approach, practitioners are able to select the subtests to administer from all seven of the major intelligence batteries and various other instruments. A Table of Human Cognitive Abilities classifies over 500 tests according to the broad and narrow CHC abilities/processes they measure. The more knowledgeable and experienced the clinician, the more resourceful he or she will be in planning the selective measurement of abilities/processes that are deemed to be most important with respect to the examinee's presenting problems.

Similar to the manner in which the Woodcock-Johnson III/NU is constructed, each CHC theory-based cluster in the Cross-Battery approach is represented by two or more qualitatively different measures of narrow abilities/processes. But in the Cross-Battery approach, the practitioner is able to choose the measures of narrow abilities/processes that are most pertinent to the individual. Furthermore, only by using cross-battery assessment are practitioners able to obtain more than one measure of a narrow ability in an achievement area when indicated as none of the major test instruments including the Woodcock-Johnson III/NU provide more than one measure of a narrow ability.

The Cross battery approach, then, provides practitioners with the means to make systematic, valid, and up-to-date interpretations of intelligence batteries and to augment them with academic ability tests in a way that is consistent with the empirically supported Cattell-Horn-Carroll theory of cognitive abilities. The Cross-Battery approach bridges current intellectual theory and research with practice.

In the Cross-Battery assessment program, Flanagan and her colleagues provide a Data Manager and Interpretive Assistant computer program to automate their procedures for interpreting clusters and an SLD Assistant for use in identifying profiles of overall normal ability.

Furthermore, using the Cross-Battery approach, practitioners can develop custom batteries for individuals of culturally and linguistically diverse backgrounds that differ as a function of both the specific language competencies and the cultural experiences of the individual.

Basic Model for Psychological Assessment and Interpretation Utilizing the Woodcock-Johnson III/NU

1. Assessment of Academic Achievement: The process at step one involves comprehensive assessment of the eight major areas of academic achievement specified in the federal definition of LD as outlined in the Individuals with Disabilities Education Act (IDEA): basic reading, reading comprehension, reading fluency, written expression, math calculation, math problem solving, listening comprehension, and oral expression. All academic domains can be assessed with the Woodcock-Johnson III/NU, some more comprehensively than others.

While CHC theory now includes quantitative ability (Gq) and reading-writing ability (Grw) clusters for which no measures are provided in the Woodcock-Johnson III/NU, Gq abilities are tapped by Woodcock-Johnson III ACH Tests 5, 10, and 18: Calculation, Applied Problems, and Quantitative Concepts and Grw abilities are tapped by ACH Tests 1, 7, 9, 11, 16, and 22: Letter-Word Identification, Spelling, Passage Comprehension, Writing Samples, Editing, and Punctuation and Capitalization.

The Woodcock-Johnson III/NU Tests of Achievement includes a range of cluster scores in the areas of reading, oral language, math, and written language. Additionally, Academic Skills, Academic Fluency, and Academic Applications clusters provide measures of overall basic achievement skills including reading decoding, math calculation, and spelling; overall academic fluency in the areas of reading, math, and writing; and the application of academic skills to academic problems.

Other Clusters/tests include the Phoneme/Grapheme Knowledge cluster which provides in-depth diagnostic information about basic understanding of sound/symbol relationships and the test of

Academic Knowledge which measures a broad sample of the individual's range of scientific knowledge, social studies knowledge, and cultural knowledge.

The Total Achievement cluster is a combination of the nine tests included in Broad Reading, Broad Math, and Broad Written Language and can be viewed as representing a person's overall performance across the various achievement domains.

2. **Assessment of Intellectual Functioning:** Next, the evaluation focuses on the comprehensive assessment of cognitive abilities/processes. The Woodcock-Johnson III/NU Cognitive Battery contains 20 tests, each measuring a different aspect of cognitive ability. Tests are combined to form clusters that are organized according to the broad abilities/processes specified in the Cattell-Horn-Carroll (CHC) theory of cognitive abilities: Gs, Gsm, Glr, Ga, Gv, Gf, and Gc.

The Woodcock-Johnson III/NU Cognitive Battery has at least one subtest that measures each of the narrow abilities/processes considered important for reading achievement, except Listening Ability (LS). This narrow ability/process is assessed by the Woodcock-Johnson III/NU achievement battery, however

The Woodcock-Johnson III Cognitive Battery also includes three clusters representing broad categories of cognitive abilities that are causally related to cognitive performance: Verbal Ability, Thinking Ability, and Cognitive Efficiency. These clusters are considered important predictors of cognitive performance.

Several additional clinically useful clusters may be obtained from other combinations of tests on the Woodcock-Johnson III/NU Cognitive Battery: Phonemic Awareness, Working Memory, Broad Attention, Cognitive Fluency, and Executive Processes. Two additional clusters, Delayed Recall and Knowledge, may be obtained when combined with certain tests from the Woodcock-Johnson III/NU Achievement Battery.

Phonemic Awareness measures the knowledge and skills related to analyzing and synthesizing speech sounds. A substantial body of research has documented the relationship between poor phonological awareness and delayed literacy development. Deficits in phonological skill have been identified as a major cause of severe reading problems. Results from longitudinal studies suggest that 75% of the children who struggle with reading in third grade, particularly with the development of phonological awareness, will be poor readers at the end of high school.

Working Memory measures the ability to hold information in immediate awareness while performing a mental operation on the information.

Broad Attention provides a global measure of attention including focused or selective attention, vigilance or sustained attention, divided attention, and attentional capacity or working memory.

Cognitive Fluency measures the ease and speed by which an individual performs cognitive tasks.

The Executive Processes cluster measures strategic planning, proactive interference control or inhibition, and the ability to shift repeatedly one's mental set or mental flexibility. Attention and Working Memory clusters also provide information about the executive functions.

The executive functions refer to a constellation of several complex, inter-related, mental operations or constructs, including the allocation of attentional resources, working memory, planning, problem-solving, response inhibition, self-monitoring and regulation, and the maintenance of mental sets. Interpretation of certain Woodcock-Johnson III/NU tests as measures of executive functioning is supported by research reported in the Technical Manual.

Delayed Recall measures the ability to both recall and re-learn associations that were previously learned.

The Knowledge cluster provides a measure of general information and curricular knowledge.

Additionally, Speed of Lexical Access measures the ability or efficiency with which individuals are able to retrieve phonological codes (pronunciations of letters, word segments, or entire words) from long-term storage. This narrow ability (Naming Facility), an aspect of long-term storage and retrieval (Glr), has received considerable attention as it relates to understanding the process of learning to read.

(3) Inter-individual Diagnostic Analysis: After assessing academic and cognitive abilities, the practitioner determines whether performance in each of these areas is within normal limits relative to same-age peers in the general population.

Population-relative information offered by the Woodcock-Johnson III/NU includes standard scores, percentiles, T-scores, normal curve equivalents, and stanines. Information from these scores provides the necessary data to determine whether performance is within or outside of normal limits.

If both academic and cognitive deficiencies relative to same-age peers in the general population are identified, the practitioner then evaluates the examinee's underachievement in order to determine whether the academic and cognitive deficiencies are related, or in other words, whether there is aptitude-achievement consistency.

If the practitioner has documented one or more academic skill deficits and one or more cognitive ability/processing deficits and has determined that the identified academic and cognitive deficits are related and are not primarily the result of exclusionary factors, it is then necessary to determine whether the identified academic and cognitive deficits exist within an otherwise normal ability/processing profile.

Below average aptitude coupled with below average academic achievement is insufficient to meet the criterion for specific learning disability unless the below average aptitude-achievement consistency occurs within the context of an otherwise normal ability profile. If an individual performs within normal limits relative to same-age peers from the general population on a majority of abilities/processes in the cognitive area, then the practitioner can be reasonably confident that consistency, for example, between reading aptitude deficits and academic deficits in reading represents underachievement indicative of learning disability. Underachievement (aptitude-achievement consistency) in an otherwise normal ability profile supports the presence of a specific learning disability because the intact abilities/processes suggest the likelihood of average or better academic performance if the domain-specific deficiencies are either accommodated or remediated.

If an individual does not display an otherwise normal ability profile, this finding alone does not indicate that no disability is present. Rather it indicates that a specific learning disability is not likely present. Constellations of cognitive and academic deficits that are not consistent with the specific learning disability construct may indicate other problems such as severe language problems or developmental difficulties.

(4) Instructional Analysis: The greatest amount of information from an assessment is derived when the results of both intra- and inter-individual ability analyses are considered. Inter-individual ability analyses are most useful for diagnostic purposes while intra-individual ability analyses are most useful in formulating recommendations for service delivery and designing appropriate treatment programs.

There are three types of intra-ability comparisons in the Woodcock-Johnson III/NU that allow comparison of performance among skills and abilities. Differences between test scores identified using intra-ability analyses available with the Woodcock-Johnson III/NU may be statistically significant and rare, but they are not always or necessarily clinically meaningful. Practitioners should always seek to establish meaningful clinical significance as well as statistical significance.

Intra-achievement discrepancies allow comparison of one area of academic achievement with the subject's average performance in other achievement areas. Intra-achievement discrepancies are present within individuals who have specific achievement strengths or weaknesses. Intra-cognitive discrepancies reflect either strength or a weakness in one ability relative to the average of all other cognitive abilities. Intra-individual discrepancies reflect the amount of disparity among all cognitive and academic abilities. Intra-individual discrepancies allow comparison between areas of cognitive ability and academic achievement that are known to be tied together, for example, verbal comprehension and reading comprehension.

These discrepancies can assist the practitioner in comparing cognitive and academic abilities. The information generated from this type of person-relative analysis can be used to develop remedial strategies, educational plans, and specific academic interventions. The Woodcock-Johnson III/NU offers criterion-referenced scores including Instructional Range, Developmental Level Band, and Relative Proficiency Index, that may be very helpful in developing educational plans and interventions.

Flanagan and her colleagues caution, however, that intra-ability discrepancies, no matter how large, should not be interpreted as indicators of dysfunction unless one or more of the examinee's scores falls below and outside the normal limits of functioning.

Several ability/achievement discrepancies are also calculated in the Woodcock-Johnson III/NU in order to predict academic performance using certain intellectual or linguistic abilities. Ability/achievement discrepancies compare an individual's current academic performance to others of the same age or grade with the same ability score. Predicted Achievement or General Intellectual Ability may be used from the Woodcock-Johnson III/NU Cognitive Battery as a predictor or measure of ability. Oral Language from the Woodcock-Johnson III/NU Cognitive Battery may also be used to predict level of achievement based on the individual's level of oral language development.

On the Woodcock-Johnson III/NU, each test 1 through 7 measures one narrow ability which, when combined with a second measure from tests 11 through 17, comprise the seven CHC broad

ability/processing clusters. On the Woodcock-Johnson III/NU, the predicted achievement scores are differentially weighted combinations of Tests 1 through 7. The best mix of these cognitive tasks correlated with the curricular area is identified statistically and assigned weights that vary by subject age to provide the optimal prediction of achievement in specific curricular areas (reading, mathematics, written language, oral language, and academic knowledge). Using Flanagan's operational definition for identifying students with learning disability, however, the practitioner is evaluating the examinee's performance to determine whether specific academic and cognitive deficiencies are related (aptitude-achievement consistency) . And so the mix of tests 1 through 7 used to generate the predicted achievement scores on the Woodcock-Johnson III/NU is an intra-ability procedure that has very limited utility in Flanagan's model for identifying students with learning disability.

The Woodcock-Johnson III/NU Cognitive Battery does offer two interpretive models that may be useful in understanding a subject's performance. The Woodcock-Johnson III/NU Cognitive Performance Model identifies four broad components which contribute to cognitive performance (acquired knowledge, thinking abilities, cognitive efficiency, and facilitators-inhibitors) but does not suggest how these components interact in real time to produce cognitive performance. The Woodcock-Johnson III/NU Information Processing Model is an extension of the Woodcock-Johnson III/NU Cognitive Performance Model. Paths from conscious awareness through executive control and from stores of knowledge to cognitive performance (and/or conscious awareness) at lower to higher levels of processing complexity are represented in this model. A Woodcock-Johnson III/NU Diagnostic Worksheet based on the Woodcock-Johnson III/NU Information Processing Model is available to help clinicians evaluate cognitive and non-cognitive information about an individual.

(5) Evaluation of Interference with Learning: The legal and diagnostic specifications of SLD necessitate that practitioners' review the collected data and make a professional judgment about the extent of the negative impact that any measured deficit has on an individual's performance in one or more areas of academic achievement. This final criterion requires practitioners to take a very broad survey not only of the entire array of data collected during the course of the assessment but also of the real-world manifestations and practical implications of any presumed disability.

(6) Eligibility Determination: Now, the practitioner reviews the following criteria to determine an individual's eligibility to receive special education services as a learning disabled student:

a) One or more measures of achievement are significantly below normal limits relative to same-age peers in the general population.

b) One or more measures of cognitive ability are significantly below normal limits relative to same-age peers in the general population.

c) The academic and cognitive deficiencies are related, that is, there is valid evidence for specific, circumscribed aptitude-achievement consistency.

d) The related academic and cognitive deficiencies exist within an otherwise normal ability profile.

e) The deficiencies are not primarily due to non-cognitive factors.

f) The impairment is observed in real life activities.

(7) Recommendations: Interventions are formulated on the basis of all the test results.

D. Advanced Model for Psychological Assessment and Interpretation Utilizing Cross-Battery Assessment

(1) Select Primary Battery: The process begins by selecting an intelligence battery that is appropriate and responsive to several factors, including age and developmental level of the examinee, English language proficiency of the examinee, the specific referral concerns, and so forth. Flanagan explains that while the Woodcock-Johnson III/NU may be the battery of choice for one eight-year old with reading difficulties, for example, it would not necessarily be the battery of choice for all eight-year olds with reading difficulties. This is because intelligence tests differ with regard to the extent to which they are engaging to young children, the amount of receptive language requirements needed to comprehend the subtests directions, the level of expressive language necessary on the part of the examinee to demonstrate success, the extent to which exposure to mainstream U.S. culture is necessary for success, and so forth.

Therefore, when selecting an intelligence battery, evaluators should consider a number of factors above and beyond the broad and narrow CHC abilities/processes measured by the instrument. Practitioners should become familiar with a variety of tests that may be used to supplement their intelligence battery of choice. Table 2.2 from Flanagan et.al.'s book, Essentials of Cross-Battery Assessment (page 49) provides basic examples of Cross-Battery assessment using mainly the Woodcock-Johnson III/NU to supplement each of the other test batteries listed.

(2) Plan the Cross-Assessment Battery: Next, CHC theory is combined with case history information in order to plan the Cross-Assessment Battery. The assessment and interpretive process requires careful evaluation of case history information, for example, educational records, response to intervention, measures of achievement, medical records, the inclusion of data from relevant sources, and the framing of an individual's difficulties within the context of CHC theory and research. By coupling case history data and current information with knowledge of CHC theory and research, defensible connections between academic achievement and cognitive abilities/processes can be made. After making a connection between individual's presenting difficulties and related cognitive abilities/processes, a practitioner may construct a battery of tests in accordance with Cross-Battery principles and procedures.

In the Cross-Battery Assessment approach, practitioners use Flanagan's classification of tests (the Table of Human Cognitive Abilities) to select subtests at the broad ability/processing level to ensure that the CHC constructs are organized into construct-relevant clusters, clusters that contain only measures that are relevant to construct of interest.

When constructing the broad ability/processing clusters, the practitioner includes two or more relatively pure and qualitatively distinct narrow ability/processing indicators to represent each broad ability/process (appropriate construct representation). By constructing ability clusters that contain

qualitatively different indicators of each broad CHC cognitive ability/process, the identification of processing strengths and weaknesses relative to same-age peers in the general population using cross-battery procedures is both psychometrically defensible and theoretically sound.

Although practical, the use of just two, qualitatively different, subtests to measure any given construct may not be sufficient. However, when there exists a statistically significant or unusual difference between the two subtest scores or when a more in-depth assessment of the construct is warranted.

If, on the primary battery, one or more subtest standard scores representing a single narrow ability that is not part of an interpretable broad cluster falls in the below-average range of functioning, then there will be a need to supplement this battery to determine the individual's true ability in the narrow ability/processing domain(s) because none of the test batteries include more than one measure of most narrow abilities/processes.

Additionally, two or more relatively similar indicators are necessary to make inferences about specific or narrow CHC abilities in an in-depth assessment, and this will require cross-battery planning.

(3) Assessment of Academic Achievement: The process at step three involves comprehensive assessment of the eight major areas of academic achievement specified in the federal definition of LD as outlined in the Individuals with Disabilities Education Act (IDEA): basic reading, reading comprehension, reading fluency, written expression, math calculation, math problem solving, listening comprehension, and oral expression.

Flanagan's program includes measures of Quantitative ability (Gq), Reading-writing ability: reading (Grw-r), and Reading-writing ability: writing (Grw-w). Gq and Grw have emerged as distinct human cognitive abilities in research.

Quantitative knowledge (Gq) is the ability to comprehend quantitative concepts and relationships and to manipulate numerical symbols. Gq is measured both by tests of the elements of mathematics (tests of addition, subtraction, multiplication, and division) and by tests of applications of quantitative thinking (solving word problems, determining rate calculations, and using percentages and statistics).

Gq must be distinguished from the narrow quantitative reasoning (RQ) ability that may be subsumed under Gf. Gq represents an individual's store of acquired mathematical knowledge, whereas RQ represents only the ability to reason inductively and deductively when solving quantitative problems.

Reading-writing ability (Grw) is a common factor underlying both reading and writing including basic reading and writing skills and the skills required for comprehension and expression. Grw includes both basic skills, for example, reading decoding and spelling, and more complex abilities, for example, reading comprehension and the ability to write a story.

But it is important to distinguish between adequate assessment or representation of the CHC broad abilities (Gq and Grw) and adequate assessment of a federally specified academic achievement area. A broad ability domain is adequately represented when the assessment includes two qualitatively different narrow abilities. This, however, provides a sampling of functioning in a broad ability domain, as opposed to an in-depth assessment. This sampling of functioning provides important baseline

information that can be used to draw inferences about performance within a broad ability domain. Below average performance in a broad ability area may be insufficient to conclude that an individual is limited in one of the areas of academic achievement listed in the federal definition of LD. A specific area of academic achievement may be represented by only a single test even when the broad ability area is adequately represented by two qualitatively different narrow abilities. And a single test would not be sufficient to assess an area of academic achievement.

Beyond an adequate, or in-depth, assessment of broad ability areas, adequate or in-depth assessment of the LD areas in the federal definition requires that two or more tests providing measures of performance in a specific area of academic achievement be administered. Therefore, prior to concluding that an individual has a deficit in one of the academic areas of LD from the federal definition, practitioners should ensure that the specific area in question is assessed adequately. That is, at least two CHC narrow abilities that correspond to an LD area should be included in an assessment of that academic skill. The more qualitatively different aspects of an academic skill that are measured, the better the estimate is of functioning in that area.

Once more, when referrals are specific to difficulties in one or more academic areas, practitioners should include measurement of the narrow cognitive abilities/processes.

(4) Assessment of Intellectual Functioning: Next, the evaluation focuses on cognitive abilities/processes. The cognitive abilities/processes evaluated are organized according to the broad abilities/processes specified in CHC theory: Gs, Gsm, Glr, Ga, Gv, Gf, and Gc. But Flanagan further organizes these abilities according to the processes they represent when embedded within an information processing perspective, including attention and cognitive deficiency, memory, thinking abilities, and language abilities. From this perspective, the language abilities represent the collection of Gc narrow abilities that more accurately reflect processing skills as opposed to the Gc abilities that represent the stores acquired knowledge that were assessed in evaluation of academic achievement.

Specific or narrow abilities/processes within many of the CHC areas may be combined in different ways to yield specific aptitudes for learning in different skill areas, for example, reading, math, and writing. Aptitude performance, therefore, is expected to be consistent with its corresponding academic skill area. Thus, if the child's reading skill deficit is the result of a disorder in one or more basic psychological processes, then his or her reading aptitude performance would be consistent with, not discrepant from, his or her actual reading performance.

The Cross-Battery approach includes a set of interpretive guidelines that allows practitioners to interpret data from one or more batteries from CHC theory and research using psychometrically defensible methods.

Interpretations that are made within the context of the Cross-Battery approach are based on inter-individual comparisons. In general, the Cross-Battery approach is based on a hierarchical model of interpretation which emphasizes interpretation of broad ability/processing constructs over narrow ability/processing constructs because they are typically more reliable and valid. Narrow ability/processing clusters are also derived from two subtests that each measure single, specific or narrow abilities. Broad ability/processing clusters comprise level one interpretation and narrow abilities/processing clusters comprise level two interpretation.

Interpretation of a broad ability/process may be made when two conditions are met: (1) two or more qualitatively different narrow ability/processing indicators are used to represent the broad ability/process and (2) the broad ability/processing cluster is considered unitary and, thus, interpretable. In general, a unitary ability/process is represented by a cohesive set of scaled scores or standard scores, each reflecting slightly different or unique aspects of the ability/process. When the difference between the subtest standard scores is not statistically significant, then the cluster may be interpreted as a reliable and valid estimate of this broad abilities/process. However, if the difference between the subtest standard scores is statistically significant, then the broad ability/process cannot be considered to represent a unitary ability/process and, therefore, this cluster should not be interpreted.

The Cross-Battery Data Manager and Interpretive Assistant (DMIA) provides the user with information regarding the interpretability of the clusters, scales, indexes, and IQs that comprise the seven major intelligence batteries included in the program. The criteria used to determine whether or not the cluster is unitary and, thus, interpretable varies by battery as a function of unique statistical qualities of the battery. In all instances, however, the criteria used ensure that the designation of non-unitary or non-interpretable is based on the finding of a statistically significant difference between the highest and lowest scores comprising the composite.

When one or more clusters are found to be non-unitary and thus not interpretable, then it is often (but not always) necessary to gather additional data. If the broad ability/processing domain is not a construct central to the referral, and if the scores for both subtests comprising the domain were within normal limits or higher, despite being significantly different from one another, then practitioners can be reasonably confident that this broad ability/process is intact. However, if the broad ability domain was central to the referral, or if performance on one of the two narrow ability/processing indicators that comprised it was below normal limits, then there would be a need to secure more definitive information about functioning in the narrow ability/processing area that was found to be deficient to create a more defensible basis for interpretation.

It is important to note that deficiency in a cognitive ability or process may be established through means other than standardized test performance. For example, deficient orthographic processing may not manifest itself on standardized tests of ability in the form of low score performance simply because no existing, valid measures have been designed specifically to assess this skill. However, difficulties with orthographic processing may be documented through appropriate, supported, error-analysis procedures and clinical observations that are consistent with current research.

(5) Inter-individual Diagnostic Analysis: After assessing academic and cognitive abilities, the practitioner determines whether performance in each of these areas is within normal limits relative to same-age peers in the general population.

If both academic and cognitive deficiencies relative to same-age peers in the general population are identified, the practitioner then evaluates the examinee's underachievement in order to determine whether the academic and cognitive deficiencies are related, or in other words, whether there is aptitude-achievement consistency.

If the practitioner has documented one or more academic skill deficits and one or more cognitive ability/processing deficits and has determined that the identified academic and cognitive deficits are

related and are not primarily the result of exclusionary factors, it is then necessary to determine whether the identified academic and cognitive deficits exist within an otherwise normal ability/processing profile.

Below average aptitude coupled with below average academic achievement is insufficient to meet the criterion for specific learning disability unless the below average aptitude-achievement consistency occurs within the context of an otherwise normal ability profile.

In the Cross-Battery approach, the SLD Assistant computes a "g-value" utilizing developmentally-based g-loadings across the lifespan for seven broad CHC abilities/processes and combining them with a weighting system that recognizes the changing nature of formal instruction with respect to abilities/processes that are utilized, taught or developed across the general education curriculum. The g-value is then used in conjunction with other information, for example, the specific normative classifications of intact abilities/processes, to generate an informed, well-reasoned, defensible opinion regarding the presence or absence of an otherwise normal ability profile.

If an individual performs within normal limits relative to same-age peers from the general population, then the practitioner can be reasonably confident that consistency, for example, between reading aptitude deficits and academic deficits in reading represents underachievement indicative of learning disability. Underachievement (aptitude-achievement consistency) in an otherwise normal ability profile supports the presence of a specific learning disability because the intact abilities/processes suggest the likelihood of average or better academic performance if the domain-specific deficiencies are either accommodated or remediated.

If individual does not display an otherwise normal ability profile, this finding alone does not indicate that no disability is present. Rather it indicates that a specific learning disability is not likely present. Constellations of cognitive academic deficits that are not consistent with the specific learning disability construct may indicate other problems such as severe language problems or developmental difficulties.

(6) Instructional Analysis: The greatest amount of information from an assessment is derived when the results of both intra- and inter-individual ability analyses are considered. Inter-individual ability analyses are most useful for diagnostic purposes while intra-individual ability analyses are most useful in formulating recommendations for service delivery and designing appropriate treatment programs.

Various types of intra-ability comparisons are provided by the major test instruments that allow comparison of performance among skills and abilities. Differences between test scores, identified using intra-ability analyses may be statistically significant and rare, but they are not always or necessarily clinically meaningful. Practitioners should always seek to establish meaningful clinical significance as well as statistical significance.

These discrepancies can assist the practitioner in comparing cognitive and academic abilities. The information generated from this type of person-relative analysis can be used to develop remedial strategies, educational plans, and specific academic interventions. The Woodcock-Johnson III/NU, in particular, offers criterion-referenced scores including Instructional Range, Developmental Level Band, and Relative Proficiency Index, that that may be very helpful in developing educational plans and interventions.

Flanagan and her colleagues caution, however, that intra-ability discrepancies, no matter how large, should not be interpreted as indicators of dysfunction unless one or more of the examinee's scores falls below and outside the normal limits of functioning.

Ability/achievement discrepancies are also calculated utilizing various procedures in the major test batteries. Using Flanagan's operational definition for identifying students with learning disability, however, the practitioner is evaluating the examinee's performance to determine whether specific academic and cognitive deficiencies are related (aptitude-achievement consistency). And so the various intra-ability procedures that are available in this respect have very limited utility in Flanagan's model.

(7) Evaluation of Interference with Learning: The legal and diagnostic specifications of LD necessitate that practitioner's review the whole of the collected data and make a professional judgment about the extent of the negative impact that any measured deficit has on an individual's performance in one more areas of learning or academic achievement. This final criterion requires practitioners to take a very broad survey not only of the entire array of data collected during the course of the assessment but also of the real-world manifestations and practical implications of any presumed disability.

(8) Eligibility Determination: The practitioner reviews the criteria to determine eligibility to receive special education services as a learning disabled student:

a) One or more measures of achievement are significantly below normal limits relative to same-age peers in the general population.

b) One or more measures of cognitive ability are significantly below normal limits relative to same-age peers in the general population.

c) The academic and cognitive deficiencies are related, that is, there is valid evidence for specific, circumscribed aptitude-achievement consistency.

d) The related academic and cognitive deficiencies exist within an otherwise normal ability profile.

e) The deficiencies are not primarily due to non-cognitive factors.

f) The impairment is observed in real life activities.

(9) Recommendations: Interventions are formulated on the basis of all the test results.

APPENDIX B

Case Studies

The following case studies were prepared to demonstrate the analysis of pattern of strength and weakness using the Basic and Advanced models.

SLD IDENTIFICATION USING BASIC APPROACH

Name: Joseph Smith
Birthdate: 06/05/1998
Age: 11 years, 0 months
Grade: 5

Reason for Referral

Joseph was referred for an evaluation by his 5th grade teacher due to ongoing difficulties with the acquisition of mathematics and written language skills. Specific issues reported by his teacher and noted on assessments include poor understanding of math concepts, difficulty retaining and using appropriate math procedures, and trouble applying math concepts to solve story problems. Joseph also has some difficulty with remembering math facts. In the English/language arts area, Joseph's basic reading and spelling skills are an area of strength yet he struggles with written language. Although he is typically able to comprehend what he reads, his reading comprehension performance tends to be inconsistent on tests. In writing, he has trouble organizing his thoughts, connecting ideas, and editing his work. Additionally, Joseph has experienced increasing difficulty with organizational skills, completing assignments and turning in work in a timely manner. Joseph is described as an engaging and talkative boy who displays a desire to do well. Some of his teachers report that he displays good general knowledge. He can be impulsive at times and may require occasional redirection from his teacher, which he responds to in a compliant manner. Joseph has been diagnosed with ADHD and is treated with medication. He has also received RTI intervention in math four times weekly and writing three days weekly during this school year. Joseph parents have also provided private tutoring for him. He has also been involved in a study skills group with the school counselor twice weekly and his assignment completion is monitored at the end of each day to assist him with organizational skills. Some improvement has been recently noted in this latter area since the inception of this intervention. Despite this intensive intervention, Joseph has displayed nominal academic growth, most notably in math. Most recent assessment reveals that his math skills are at the early 3rd grade level. The purpose of this evaluation is to determine Joseph's eligibility for Special Education Services and to determine his present level of cognitive and academic functioning.

Background Information

Information was provided by Mrs. Smith, Joseph's mother, during an interview. Joseph is an 11-year-old child who lives with his mother and his younger brother who is 4 years of age. His father lives out of state and he has limited contact with him. With regards to school, his mother reports that his strengths include reading and spelling and his weaknesses are in math, science, social studies and English. She reports that Joseph was diagnosed with ADHD during his 1st grade year and has been treated with medication since that time. He has previously taken numerous stimulants with varying degrees of effectiveness. Joseph also has facial tics (eye blinks, opens eye wide), throat clearing, and jerks his head sideways.

Joseph's dominant language is English. Joseph's speech during testing was clear and intelligible and he demonstrated English proficiency.

Evaluation Procedures

Woodcock-Johnson III/NU Tests of Cognitive Ability (WJ-III COG)
Woodcock-Johnson III /NU Tests of Achievement (WJ-III ACH)
Curriculum Based Assessments/Measurements (DIBELS, DRA, Math probes)
Teacher Interview
Parent Interview
Classroom Observation
Review of Academic Records
Work samples/Permanent Product Reviews

Observations

Rapport was easily established due to Joseph's engaging style. He displayed good conversational skills and spoke candidly about home and his school difficulties. He was responsive to questions asked and shared much information about himself. He reported that he has trouble with math and finds it frustrating at times. He does not prefer to read but feels that he is stronger in reading than in the math area. Joseph appeared to demonstrate adequate persistence on verbal test items but seemed to have less persistence on items involving math. He displayed a good sense of humor. Joseph was treated with stimulant medication during the evaluation process.

Inter-Cognitive Analysis: Performance in Abilities/Processes and Learning Efficiency

Among a selected set of his cognitive abilities, Joseph's performance falls into the average range on the Visual-Spatial Thinking cluster (Gv- 94). Visual-Spatial Thinking is an index of Joseph's ability to perceive, analyze, synthesize, and think with visual patterns, including his ability to store and recall visual representations. His visual processing standard score is within the average range (standard score of 94) when compared to others of his age. This indicates that he will probably find age-level tasks requiring visual memory or mental manipulation of visual images manageable.

Comprehension-Knowledge is also a relative cognitive strength for him. Comprehension-Knowledge (Gc) is a measure of the breadth and depth of Joseph's language-based knowledge. It includes the ability to verbally communicate his verbal knowledge and comprehension. His comprehension-knowledge standard score is within the average range (standard score of 107) for his age. Joseph's verbal knowledge and comprehension are average. It is likely that he will find age-level verbal communication, knowledge, and comprehension tasks manageable.

Additionally, when compared to others of his age, Joseph's cognitive abilities are in the average range in Phonemic Awareness and Auditory Processing (Ga – 99). This is an area of relative strength and correlates with his basic reading skills. Long-Term Retrieval is also in the average range with an obtained standard score of 97.

Joseph's short-term memory standard score is within the low average range (Gsm -83) for his age. Joseph's short-term memory capacity is limited. Short-Term Memory is the ability to hold information in immediate awareness and use it within a few seconds. This suggests that he will find age-level tasks such as remembering just-imparted instructions or information or mentally manipulating information in immediate awareness very difficult. Specifically, working memory measures Joseph's ability to hold information in immediate awareness while performing a mental operation with the information. His working memory standard score is within the low range for his age (SS- 79). Thus, Joseph's working memory capacity is limited and represents a normative and relative weakness. It is predicted that he will find age-level tasks requiring complex processing of information in immediate memory very difficult.

Joseph's processing speed is an area of normative weakness (Gs -82). This ability involves the speed and efficiency in performing automatic or very simple cognitive tasks.

Among a selected set of his cognitive abilities, he has a relative weakness in Fluid Reasoning. Fluid Reasoning is the ability to reason, form concepts, and solve problems using unfamiliar information or novel procedures. Joseph's fluid reasoning standard score is within the low range (Gf – 76) for his age. This indicates that Joseph's fluid reasoning ability is limited. He demonstrated much difficulty on the analysis-synthesis subtest (which approximates a rudimentary arithmetic system). He had trouble transferring procedures to more complex items. On the concept formation test, his difficulties with shifting mental set were noted. As a result, he will likely find age-level tasks requiring identifying categories and relations, drawing and generalizing inferences, recognizing and forming concepts, and drawing conclusions very difficult.

In the areas of cognitive fluency and executive processing, Joseph's overall ability to plan, monitor, and arrive at solutions to problems is normative weakness. Specifically, his performance on Planning and performance on Pair Cancellation are limited and well below average. His performance on Concept Formation is limited. During testing, Joseph's ability to focus his attention on relevant stimuli for information processing purposes was rather variable. This suggests that he has difficulty with aspects of executive functioning, such as shifting a mental set, weak interference control and strategic thinking.

Inter-Academic Analysis

A global review of the data suggested that Joseph's performance was below average/normative weakness in the IDEA SLD areas of math calculation, math problem solving, and written language. Performance was within the average range in the areas of basic reading skill, reading fluency, listening comprehension skills and oral expression skills.

More specifically, among his achievement and oral language abilities, Joseph displays a relative strength in Basic Reading Skills. Basic Reading Skills includes sight vocabulary, phonics, and structural analysis skills. His basic reading skills standard score is within the average range (standard score of 105). Given this finding, Joseph will probably find age-level tasks requiring accurate word identification and use of decoding skills manageable. His verbal ability was within the average range (standard score 106).

His listening comprehension standard score is within the average range for his age (standard score of 90). Listening Comprehension includes listening ability and verbal comprehension. When compared to others of his age, Joseph's academic achievement is in the average range in Reading Comprehension (standard score of 92). Based on Joseph's relative strengths in language skills and literacy achievement, it can be concluded that his mathematics difficulties are not caused by a language-based problem.

Academic Knowledge is also a relative achievement strength for him. Academic Knowledge is a sampling of Joseph's knowledge in the sciences, history, geography, government, economics, art, music, and literature. This indicates that his acquisition of knowledge in various areas is within the average range (standard score range of 105) for his age.

Although his basic writing skills standard score is within the low average range, his performance varied on two different types of tasks measuring effective expression in written language. Basic Writing Skills includes spelling skills and knowledge of English language usage. Joseph's performance is average on tasks requiring the ability to spell orally presented words correctly (standard score of 97). His performance is very limited and a normative weakness on tasks requiring the ability to identify and correct errors in punctuation, capitalization, spelling, and word usage (standard score of 77). In the area of written expression, Joseph demonstrated difficulty putting his thoughts down on paper (standard score of 68). His writing reflected limited written output, disjointed sentence structure and was rather immature in quality. This was in marked contrast to his oral expression ability. Joseph's limited proficiency with writing skills may be related to his limited short-term memory, processing speed, and associated attentional difficulties. This is consistent with teacher reports of his trouble with written expression. He may have some difficulty with holding all of the components involved in producing a writing product (spelling, capitalization, punctuation, vocabulary, ideas etc.) in memory due to his attentional and memory weaknesses.

Joseph has a normative weakness in Math Calculation Skills with an obtained standard score of 72. This falls into the Below Average range. Math Calculation Skills measures Joseph's computational skills and automaticity with basic math facts. His mathematics calculation difficulties are likely related to his limited fluid reasoning, short-term memory/and working memory discussed in the preceding section. He displayed some difficulty remembering the multiple steps in calculation problems to correctly execute a response. The RPI of 31/90 reveals limited proficiency and that Joseph will have much difficulty performing similar math tasks in school.

Joseph's mathematics reasoning standard score is within the Below Average range for his age (standard score range of 75) and is a normative weakness. Mathematics Reasoning includes mathematical knowledge and reasoning. Thus, his mathematics reasoning ability is very limited. Joseph's very limited mathematics reasoning may be related to his limited fluid reasoning, short-term memory, and working memory weaknesses. For example, Joseph had trouble remembering math procedures (trading in a subtraction problem, multistep problems – multiplication and division). This difficulty with procedural learning is noted in children with math difficulties and likely related to memory difficulties.

This may also be linked to weakness noted on the Analysis –Synthesis subtest, that is, he was able to deduce a basic procedure, but was unable to apply it to complex examples or to apply it consistently. His calculation weakness made it difficult for him to use math facts and procedures with automaticity to solve applied math problems. The RPI of 26/90 reveals limited proficiency (26% proficiency) and that Joseph will have much difficulty performing similar math tasks in school.

Overall, Joseph's difficulty with math can most likely be attributed to underlying deficits in attention, memory, and cognitive flexibility, the ability to think categorically and abstractly, which has direction implications for math reasoning. Trouble with math calculation and quantitative concepts were noted. Calculation difficulties subsequently affect his math problems solving ability. Weaknesses in executive functions, such as on the pair cancellation task, may be linked to difficulty inhibiting irrelevant associations when solving math problems (7 x 5 may result in an answer of 30 instead of 35, another multiple of 5). Executive function deficits are also found to be associated with ADHD.

Exclusionary Factors

Although many possibilities related to Joseph's observed learning difficulties had been raised and investigated during the RTI process, a careful review of the data focused on his history of difficulty with attention, impulsivity and overactivity (diagnosis of ADHD). In review of the data, his problems do not appear to be attributed to factors such as cultural-linguistic differences, sensory-motor impairment or economic disadvantage. Although his parents' divorce and lack of consistent contact with his father may have some impact of his emotional functioning, the fact that the divorce occurred as a preschooler, approximately 7 years ago, and there are no reports from his mother or teachers about mood or anxiety issues, it is unlikely that it plays a primary role in his school difficulties. The main focus has been on the impact of Joseph's attention and impulse control difficulties on his school functioning. Given that he was diagnosed early in his school career, that he has consistently been treated medically for this disorder, that his reading and language skill mastery has been average to above, along with the intensive academic intervention that he has had, it is thought to have been somewhat of a contributing factor in his learning issues, but it could not be reasonably considered as the primary cause of his difficulties. Joseph has been taking medication for many years and was treated with medication during the testing process. However, it should be noted that children with ADHD may have trouble with memory, particularly working memory, procedural learning, executive functions which may impact the development of academic skills. Additionally, Joseph appears to have signs of Tourette's Syndrome (i.e., throat clearing, head jerking) and does not appear to be the cause of his learning issues. Having considered and rejected reasonable hypotheses related to potential external factors causing his learning difficulties, it is appropriate to continue the assessment process.

Integrated Ability Analysis: Evaluation of Underachievement- Consistency

The documented cognitive deficits in Fluid Reasoning (Gf), Short Term Memory (Gsm) , and Processing Speed (Gs) are empirically related to Joseph's academic difficulties as determined on the academic assessment (i.e., math calculation, math problem solving, and writing). This suggests that his difficulties with mathematics can most likely be attributed to underlying deficits in attention, cognitive flexibility, and processing speed. That is, Joseph's difficulty with Fluid reasoning (cognitive flexibility and possibly failure to inhibit retrieval of associated but inaccurate information) was deficient, which plays a role in

his trouble with the development of math reasoning and problem solving skills. His weakness in calculation is also likely related to memory, specifically, working memory and procedural learning. Math calculation issues, in turn, impact problem solving skills. Math reasoning difficulty is most likely related to difficulty in cognitive flexibility and processing speed. His RPI's in math calculation (31/90) and math reasoning (26/90) demonstrate that compared to other average students of his age who have 90% success on their math, he will perform with 31% and 26% accuracy, respectively. With regards to written language weakness, his deficient fluid reasoning skills, that is, inductive and sequencing issues, along with working memory deficits and processing speed, have an impact of the development of written language skills. Memory and processing speed are implicated in more advance writing skills. Thus, Joseph's difficulty with organizing and connecting ideas and concepts in a written and cohesive text (construction of complex sentences and paragraphs) are linked to both memory and fluid reasoning. Attention may also play a role in his noted writing issues (i.e., difficulty holding all of the components involved in the writing process due to disruption of memory by distraction/attentional issues). **These cognitive and academic weaknesses have been shown to be empirically related. In summary, there is consistency between the observed academic deficits and the cognitive deficits presumed to underlie them.**

There is also sufficient evidence to support the notion of a normal pattern of functioning in areas largely unrelated to the development of mathematics and writing skills. This evidence includes average/intact functioning in the areas of auditory skills (Ga), comprehension-knowledge skills (Gc), long term retrieval (Glr), and visual processing (Gv). These areas are more largely related to the acquisition of language arts skills of reading and oral language, which are areas of relative strength and within normal limits. **So, based on this data, it appears that Joseph has circumscribed academic and cognitive deficits within an otherwise normal ability profile.** *These findings rule out the possibility that performance might be due to a broad cognitive and academic impairment. This pattern of results, then, provides evidence to also support the notion of underachievement within an otherwise normal ability profile.*

Exclusionary Factors: Review of Factors Again

Alternate explanations for his academic difficulties were considered and reasonable hypotheses related to potential external factors causing his learning difficulties were rejected as being the primary cause of academic difficulties.

Evaluation of Interference with Functioning

A broad array of data was obtained from Joseph's teacher, curriculum based measures, current standardized testing findings, and behavioral observations to document that his academic and cognitive difficulties have a prominent impact on his school functioning. He has received various levels of increasingly greater intervention and private tutoring since starting formal schooling, and nonetheless, continues to struggle with the development of writing and math skills. His daily classroom performance is affected by his learning difficulties, most notably in the language arts domains of math and writing.

Summary and Conclusion

Based on this evaluation, Joseph displays a pattern of academic and cognitive weakness that is shown to be empirically linked, within an otherwise normal ability profile. Normative academic and cognitive weaknesses fall at or below eligibility guidelines for certification under the category Specific Learning Disability in the areas of math calculation, math reasoning and written language. **T**hese weaknesses are

not primarily attributed to any exclusionary factors that could better account for these difficulties. Thus, he appears eligible for certification under the SLD category. Programming recommendations with be offered at the MET/IEP meetings.

However, as noted in the referral concerns, Joseph has experienced increasing difficulty with organizational skills, completing assignments and turning in work in a timely manner. This is likely associated with the heightened impact that his ADHD has upon the increased demands of the curriculum in terms of amount of written work, longer assignments, and greater need for organization. Issues with assignment completion are also thought to be related to the impact of learning difficulties on his frustration level and tendency to avoid schoolwork, despite his observed desire to do well. Also, as noted in the referral concerns, Joseph was inconsistent in his performance on tests of reading comprehension. Given that his performance was within normal limits on tests of language based knowledge (Gc), his basic reading skills and reading comprehension, the inconsistency reported may be due to attentional issues and subsequent issues with sustained mental effort and cognitive engagement while reading.

Recommendations

Memory and Learning

Repetition is an important factor in building speed. It frees up working memory space. Repeated and extensive practice may enable Joseph to perform some tasks in a more automatic fashion to increase speeded performance. Activities can be teacher-directed or student-directed; related computer programs or games can provide opportunities to practice responding quickly.

Speed drills focus performance on completing a task quickly. When Joseph's performance on familiar tasks is timed and progress monitored, speed may increase. For example, Joseph might be asked to count aloud, or say the letters of the alphabet, as quickly as he can for 10 seconds. The number of numerals or letters named is recorded. The speed drill is repeated at regular intervals, recording the number of items named each time. Allowing Joseph to chart his progress can provide additional motivation.

Accommodations may be useful in compensating for Joseph's limitations in working memory. Some examples include keeping oral directions short and simple, asking Joseph to paraphrase directions to ensure understanding, and providing visual cues for directions or steps to be followed. He will also need extended wait time to respond to questions and extended time on tests, particularly as the curriculum gets more challenging.

Within the context of his academic support program, teach Joseph how to use a variety of learning strategies (e.g., rehearsal, chunking, use of mnemonic devices, visualization) to increase the likelihood of him remembering specific information.

Fluid Reasoning

Provide Joseph with the opportunities to learn problem solving techniques and strategies.

Use of concrete examples to illustrate more abstract concepts would be helpful to improve understanding of concepts.

Teach flexible use of math strategies by teaching math procedures in more than one method.

Assist Joseph with his ability to discern essential from nonessential information in story problems.

Math

Provide many opportunities for practice and mastery of skills and facts.

Use graph paper to assist with alignment of multistep math procedures.

Verbal explanations and discussions should also be modeled and encouraged to facilitate learning quantitative concepts and math procedures (i.e., verbal talk-through strategies).

Give him a written list of steps for math procedures (e.g., step by step list of the long division process).

Provide accommodations and adapted material as necessary (calculators, math fact charts) and modifications as necessary (untimed tests).

Teach organizational strategies to assist Joseph with visualizing, setting up and carrying our multistep problems.

Specific instruction in the language of mathematics, including signs, symbols, and terms as well as the vocabulary used to express mathematical ideas.

Highlighting important information when solving math problems (e.g., math signs, directions, key words/concepts).

Give Joseph a list of key math terms to assist him in the completion of math word problems. This list could potentially also be used as an aid during math exams where the goal of the exam is to assess specific computational skills as opposed to assessing knowledge of mathematical concepts.

Due to some difficulty with retrieval of math facts, Joseph should use a math facts chart (addition, multiplication) to free up working memory space to solve the math problem more efficiently.

Provide organizational strategies to assist the individual with visualizing, setting up and carrying out multi-step problems.

Writing

To minimize the demands on Joseph's working memory during writing tasks, allow him to focus on one aspect of writing at a time (e.g., organizing thoughts, developing content, focusing on basic mechanics).

Provide Joseph with organizational writing problems by providing outlines and/or graphic organizers.

Provide explicit instruction and practice in proofing, editing, outlining, and note taking.

Consider the amount of writing that Joseph is required to demonstrate in specific classes and determine whether it is necessary to provide accommodations and/or modifications for his work.

Attention and organizational skills

Use of an assignment planner with contingencies for its effective use both at school and home and with verification and cross checking

Decrease work load to fit Joseph's attentional capacity, for example, smaller quotas or work assigned, more frequent but shorter work periods, or eliminate high appeal distracters.

Set time limits for work completion.

Use timers if possible for external time references

TABLE OF SCORES
Woodcock-Johnson III Normative Update Tests of Cognitive Abilities and Tests of Achievement (Form A)
Woodcock Interpretation and Instructional Interventions Program, Version 1.0
Norms based on age 11-0

CLUSTER/Test		Raw	RPI	SS (68% Band)	GE
GIA (Std)		-	*87/90*	*93 (88-98)*	*4.6*
GIA (Ext)	-		*88/90*	*94 (90-99*	*4.7*
COMP-KNOWLEDGE (Gc)	-		*91/90*	*107 (102-110)*	*6.6*
L-T RETRIEVAL (Glr)	-		*88/90*	*97 (92-102)*	*5.4*
VIS-SPATIAL THINK (Gv)	-		*86/90*	*94 (89-99)*	*5.1*
AUDITORY PROCESS (Ga)	-		*89/90*	*99 (93-105)*	*5.3*
FLUID REASONING (Gf)	-		*46/90*	*76 (72-80)*	*2.0*
PROCESS SPEED (Gs)	-		*57/90*	*82 (78-86)*	*3.6*
SHORT-TERM MEM (Gsm)	-		*51/90*	*81 (76-86)*	*2.5*
PHONEMIC AWARE	-	*505*	*91/90*	*103 (96-109)*	*6.3*
PHONEMIC AWARE 3	-	*505*	*93/90*	*106 (100-112)*	*6.8*
WORKING MEMORY	-	*485*	*47/90*	*79 (74-84)*	*2.4*
BROAD ATTENTION	-	*490*	*65/90*	*78 (74-82)*	*2.7*
COGNITIVE FLUENCY	-	*502*	*91/90*	*101 (98-104)*	*5.8*
EXEC PROCESSES	-	*490*	*68/90*	*80 (77-83)*	*2.4*
KNOWLEDGE	-	*513*	*95/90*	*107 (103-111)*	*6.6*
ORAL LANGUAGE (Ext)	-	*498*	*83/90*	*92 (88-95)*	*4.2*
ORAL EXPRESSION	-	*501*	*88/90*	*97 (93-102)*	*5.0*
LISTENING COMP	-		*76/90*	*90 (86-96)*	*4.6*
BRIEF ACHIEVEMENT	-	*503*	*78/90*	*94 (92-96)*	*4.6*
BROAD READING	-	*507*	*90/90*	*100 (97-104)*	*5.7*
BROAD MATH	-	*486*	*44/90*	*74 (71-78)*	*3.1*
BROAD WRITTEN LANG	-	*488*	*38/90*	*79 (76-83)*	*3.1*
BRIEF READING	-	*511*	*91/90*	*101 (97-105)*	*5.8*
BASIC READING SKILLS	-	*516*	*94/90*	*105 (101-108)*	*6.5*
READING COMP	-	*501*	*79/90*	*92 (89-95)*	*4.2*
BRIEF MATH	-	*485*	*33/90*	*76 (72-80)*	*3.2*
MATH CALC SKILLS	-	*489*	*31/90*	*72 (67-77)*	*3.3*
MATH REASONING	-	*480*	*26/90*	*75 (72-79)*	*2.8*
BRIEF WRITING	-			*79 (75-84)*	*3.0*
BASIC WRITING SKILLS	-		*48/90*	*77 (74-83)*	*2.9*

CLUSTER/Test	Raw	W	RPI	SS (68% Band)	GE
WRITTEN EXPRESSION	-	*480*	*38/90*	*68 (63-73)*	*2.2*
ACADEMIC SKILLS	-	*506*	*83/90*	*96 (93-98)*	*5.0*
ACADEMIC FLUENCY	-	*492*	*73/90*	*81 (77-85)*	*3.5*
ACADEMIC APPS	-	*484*	*42/90*	*77 (73-80)*	*2.9*
ACADEMIC KNOWLEDGE	-	*512*	*94/90*	*105 (100-110)*	*6.4*
PHON/GRAPH KNOW	-	*508*	*91/90*	*101 (97-105)*	*6.0*
VERBAL ABILITY (Ext)	-	*511*	*94/90*	*106 (102-110)*	*6.6*
THINKING ABILITY (Ext)	-	*496*	*89/90*	*94 (89-99)*	*5.1*
COG EFFICIENCY (Ext)	-	*496*	*76/90*	*88 (83-92)*	*3.8*
Verbal Comprehension	-	*508*	*93/90*	*103 (98-108)*	*6.2*
Visual-Auditory Learning	*33-D*		*82/90*	*96 (91-201)*	*5.6*
Spatial Relations			*79/90*	*94 (90-99)*	*>5.1*
Sound Blending	*20*	*506*	*92/90*	*102 (97-108)*	*6.3*
Concept Formation	*15-C*	*485*	*48/90*	*82 (77-86)*	*2.3*
Visual Matching	*39-2*	*502*	*85/90*	*93 (88-99)*	*4.8*
Numbers Reversed	*10*	*489*	*57/90*	*87 (81-93)*	*3.0*
Incomplete Words	*22*	*504*	*91/90*	*102 (94-110)*	*6.2*
Auditory Working Memory	*10*	*481*	*38/90*	*77 (71-82)*	*1.9*
General Information	-	*514*	*95/90*	*108 (102-114)*	*6.8*
Retrieval Fluency	*55*	*500*	*88/90*	*94 (88-100)*	*4.4*
Picture Recognition	*48-D*	*502*	*91/90*	*101 (96-107)*	*6.3*
Auditory Attention	*36*	*499*	*86/90*	*93 (84-102)*	*3.6*
Analysis-Synthesis	*16-C*	*482*	*44/90*	*77 (72-82)*	*1.8*
Decision Speed	*31*	*505*	*92/90*	*104 (99-109)*	*6.4*
Memory for Words	*15*	*487*	*54/90*	*87 (81-94)*	*2.3*
Rapid Picture Naming	*107*	*502*	*91/90*	*101 (98-103)*	*5.8*
Planning	-	*494*	*81/90*	*80 (68-81)*	*K.7*
Pair Cancellation	*45*	*491*	*71/90*	*85 (89-93)*	*3.3*
Letter-Word Identification	*59*	*522*	*96/90*	*107 (103-110)*	*6.7*
Reading Fluency	*44*	*499*	*89/90*	*99 (94-104)*	*5.4*
Story Recall	-	*498*	*86/90*	*90 (81-98)*	*3.6*
Understanding Directions	-		*77/90*	*84 (79-89)*	*3.1*
Calculation	*14*	*490*	*44/90*	*78 (72-84)*	*3.5*
Math Fluency	*34*	*489*	*69/90*	*74 (71-77)*	*2.5*
Spelling	*35*	*505*	*86/90*	*97 (94-101)*	*5.1*
Writing Fluency	*11*	*487*	*52/90*	*78 (72-84)*	*3.0*
Passage Comprehension	*30*	*500*	*81/90*	*92 (88-97)*	*4.2*
Applied Problems	*29*	*481*	*23/90*	*80 (76-84)*	*3.0*

CLUSTER/Test	Raw	W	RPI	SS (68% Band)	GE
Writing Samples	*13-B*	*472*	*25/90*	*67 (61-73)*	*1.9*
Story Recall-Delayed	-	*502*	*90/90*	*101 (91-110)*	*6.0*
Word Attack	*25*	*510*	*92/90*	*101 (97-106)*	*6.0*
Picture Vocabulary	*26*	*505*	*90/90*	*100 (95-105)*	*5.6*
Oral Comprehension	*20*	*502*	*86/90*	*97 (92-102)*	*4.9*
Editing	*5*	*471*	*17/90*	*73 (68-78)*	*2.3*
Reading Vocabulary	-	*503*	*77/90*	*92 (89-96)*	*4.2*
Quantitative Concepts	-	*479*	*21/90*	*70 (64-75)*	*2.5*
Academic Knowledge	-	*512*	*94/90*	*105 (100-110)*	*6.4*
Spelling of Sounds	*30*	*506*	*91/90*	*101 (94-108)*	*5.9*
Sound Awareness	*39*	*505*	*94/90*	*109 (101-117)*	*7.7*
Punctuation & Capitals	*15*	*493*	*64/90*	*84 (78-90)*	*3.5*

SLD Assessment Using a Cross-Battery Model

Name: David Sample
Birthdate: 9/30/2000
Age: 9 Years, 1 Month
Grade: 3

Reason for Referral

David (BD: 9/30/2000) was referred for an evaluation by his 3rd grade teacher due to his limited acquisition of academic skills. Review of David's school file reveals that he repeated Kindergarten and he has been involved in various intensive academic interventions for reading and writing. He has also received speech and language services since age 4 due to moderate articulation disorder and oral expressive language weakness. Improvements have been noted in his articulation and language skills since his preschool years. He still has a mild articulation disorder and continues to receive SLI services. He has also received RTI early literacy intervention 4 days a week since his first year in kindergarten up to the present time. Despite this intensive intervention, David continues to struggle academically across all academic areas and has displayed nominal academic growith, most notably in reading and written language. The purpose of this evaluation is to determine David's present level of cognitive and academic functioning in order to determine his eligibility for Special Education services under the category Specific Learning Disability.

Classroom Performance Data and Teacher Report

Most recent DRA assessment indicates that he is at a Level 14. Recent Dibels assessment indicates that his phoneme segmentation skills, nonsense word fluency, and word fluency skills are near or below the 5th percentile requiring intensive intervention. He displays considerable difficulty with decoding unfamiliar words, with phoneme segmentation, and with spelling. Reading fluency is poor and his comprehension of text is variable. David is able to comprehend text at a higher level when it is read to him. Sight word recognition is below average yet better than his ability to identify unfamiliar words. Writing also poses difficulty for David. His teacher reported that noted areas of difficulty for him include basic writing skills such as spelling as well as written expression.

In the area of math, he seems to grasp math concepts, although he has some trouble with retrieving math facts, with story problems and often does poorly on unit tests. The math curriculum is heavily loaded with language (math concepts, story problems). His fine-motor skills are average for his age. Initially, it was thought that his difficulties were maturational, but as he progressed through the grades, his literacy skills have steadily fallen further behind that of his age and grade peers. David is also described as a cooperative young boy who puts forth good effort in school. According to his teacher, his strengths include his cooperative style, printing, and artistic skills. He has good attendance at school.

Developmental History

Background information and developmental history were obtained through review of his school records and oral and written communications with his mother. David is a 9-year-old child who lives with his mother, twin brother, and younger sister. His parents have recently separated and are in the process of obtaining a divorce. Although he spends most of time with his mother, he has weekly contact with his father. His mother reports that David becomes very frustrated with his difficulty with verbal expression due to his articulation problems. He often uses nonverbal cues to assist in communication because he has trouble with being understood by others and is cognizant of this issue. David enjoys learning new information and likes to have others read to him. David's dominant language is English.

Review of David's early history reveals that David was born prematurely and weighed 3 pounds, 6 ounces. He spent time in a neonatal intensive care unit and required assistance with breathing. It was reported that David's motor skills were attained within normal limits. He reached language milstones later than expected (speaking first words and speaking in short sentences). Further review of his medical history also reveals that David vision and hearing screening results found that he has normal visual and hearing at present. At age 4, David had several ear infections and failed a hearing screening the summer before starting Kindergarten. Upon a follow up hearing evaluation several months later, his hearing was found to be within normal limits. He has been diagnosed with asthma and had previously received breathing treatments. He had no signs of neurological concerns in the past. During the assessment, it was observed that David appeared to be in good health. Currently, he is not taking any prescription medications.

Evaluation Procedures

Wechsler Intelligence Scale for Children – 4th Edition (WISC-IV)
Woodcock-Johnson III/NU Tests of Cognitive Ability (WJ-III COG)
Woodcock-Johnson III/NU Tests of Achievement (WJ-III ACH)
Kaufman Test of Education Achievement-Second Edition (KTEA-II)
Curriculum Based Assessments (DIBELS, DRA)
Teacher Interview
Parent Interview
Classroom Observation
Review of Academic Records
Work samples/Permanent Product Reviews

Assessment findings:

Wechsler Intelligence Scale for Children-4th Edition:

Composite Scores Summary

Scale	Sum of Scaled Scores	Composite Score	Percentile Rank	90% Confidence Interval	Qualitative Description
Verbal Comprehension (VCI)	24	89	23	84-95	Low Average
Perceptual Reasoning (PRI)	34	108	70	101-114	Average
Working Memory (WMI)	12	77	6	72-85	Borderline
Processing Speed (PSI)	18	94	34	87-102	Average
Full Scale (FSIQ)	88	90	25	86-94	Average

Cancellation was substituted for Symbol Search.

Verbal Comprehension Subtest Scores Summary

Subtests	Scaled Score
Similarities	8
Vocabulary	6
Comprehension	10
(Word Reasoning)	6

Perceptual Reasoning Subtest Scores Summary

Subtests	Scaled Score
Block Design	14
Picture Concepts	11
Matrix Reasoning	9
(Picture Concepts)	10

Working Memory Subtest Scores Summary

Subtests	Scaled Score
Digit Span	7
Letter-Number Sequencing	5

Processing Speed Subtest Scores Summary

Subtests	Scaled Score
Coding	11
(Cancellation)	7

CHC abilities

	Standard Score
Gc (Crystallized intelligence) Broad/**Narrow**	95
WECH Vocabulary	80 outlier
WECH Similarities	90
WECH Comprehension	100
Gf (Fluid intelligence) **Broad/**Narrow	100
WECH Picture Concepts	105
WECH Matrix Reasoning	95
Gsm (Short-term memory) **Broad/**narrow	80
WECH Digit Span	75
WECH Letter-Number Sequencing	85

	Standard Score	Band
Gv (Visual Processing) **Broad**/Narrow	not interpreted	
WECH Block Design	120	
WECH Picture Completion	100	
Gs (Processing Speed) **Broad**/Narrow	95	
WECH Cancellation	85	
WECH Coding	105	
Ga (Auditory Processing) Broad/**Narrow**	80	(75-85)
WJ-III Sound Blending	80	(74-86)
WJ-III Auditory Attention	102	(95-110)
KTEA-II Phonological Awareness	80	(73-87)
Glr (Long-term Retrieval) Broad/**Narrow**		(70-80)
WJ-III Visual-Auditory Learning	87	(81-92)
KTEA2 Naming Facility	76	(72-81)
WJ-III Visual-Auditory Learning-DEL	86	(81-92)
WJ-III Rapid Picture Naming	68	(64-72)

Academic Evaluation:

	Standard Score	Band	Range
BR- Basic Reading Skills	78	(76-84)	Below Avg
KTEA II Letter & Word Recognition	84	(81-87)	Below Avg
KTEA-II Nonsense Word Decoding	73	(69-80)	Below Avg
RF-Reading Fluency Skills	80	(76-85)	Below Avg
KTEA-II Decoding Fluency	76	(72-82)	Below Avg
WJ-III Reading Fluency	86	(83-94)	Below Avg
RC- Reading Comprehension	86	(82-93)	Avg
WJ-III Reading Vocabulary	85	(81-91)	Avg
KTEA III Reading Comprehension	89	(84-96)	Avg
MC- Math Calculation	106	(100-111)	Avg
KTEA-II Math Computation	110	(105-115)	Avg
WJ-III Math Fluency	94	(89-10)	Avg
MPS – Math Problem Solving	104	(101-108)	Avg range
Applied Problems	106	(102-110)	Avg range
Quantitative Concepts	104	(98-109)	Avg range
WE- Written Expression	na		
WJ-III Writing Samples	88	(83-94)	Below Avg
WJ-III Writing Fluency	100	(95-105)	Avg range

	Standard Score	Band	Range
KTEA-III Written Expression	82	(76-88)	Below Avg
KTEA-II Spelling	73	(68-90)	Below Avg
LC- Listening Comprehension	92	(87-96)	Avg
WJ-III Understanding Directions	90	(85-96)	Avg
WJ-III Oral Comprehension	94	(89-99)	Avg
OE- Oral Expression	86	(76-85)	Avg
WJ-III Lexical Knowledge	86	(81-92)	Avg

Inter-Academic Analysis

A global review of the data suggested that David's performance was below average and a normative weakness in the IDEA SLD areas of basic reading skill, reading fluency, and written language. Performance was within the average range in the areas of reading comprehension, math calculation and math problem solving. Listening comprehension skills and oral expression skills also fall within the average range.

Within the reading domain, David's performance on the Basic Reading Skills cluster (SS-78) represents a normative weakness and is Below Average. Both his ability to recognize individual words and decode unfamiliar words (KTEA-II LWR: SS-83) and rely solely on phonetic analysis to decode nonsense words are below average (KTEA-II NWD: SS-73). He had extreme difficulty with decoding nonsense words. He approached this task by sounding each individual letter but had trouble with blending the sounds into a word. This is consistent with teacher reports of his difficulty with the acquisition of basic reading skills and other school data/assessments.

Additionally, David's reading fluency skills (RF : SS- 80) also represent a normative weakness and fall Below Average. He displayed difficulty with the automaticity (rapidly retrieving words) of word recognition as well as speed of decoding nonsense words.

In the area of reading comprehension, David's skills fall on the cusp of a normative weakness (RC: SS-86). His reading vocabulary skills and comprehension of written text are relative personal weaknesses. Analysis of his testing performance revealed that David read the passages on the reading comprehension test slowly and was observed having trouble recognizing words. He did seem to grasp meaning from the text by relying on context clues on many occasions despite numerous noted reading errors.

In the mathematics domain, David's math calculation (MC: SS – 109) and math problem solving skills (MPS: SS-104) are within the average range/normal limits. He demonstrated average ability to compute math problems, under timed (MF: SS-94) and non timed conditions. David's performance on the math problem solving subtests reveal that he demonstrates adequate knowledge of math concepts and can problem solve mathematically adequately. Although referral data suggested difficulty with word problems and review of several of his math testing, the standardized score data in the areas of math did not substantiate these difficulties. Analysis of the qualitative characteristics of the subtests administered found the every word problem presented throughout testing was read to David by the evaluator. Thus, it was concluded that it was likely that his difficulties with math word problems are most reasonably attributed to his reading aforementioned reading difficulties.

Teacher reports of some difficulty with retrieving math facts are consistent with the relative weakness in math fluency skill. It may take David longer to retrieve math facts but he understands math procedures. This difficulty is a correlate of reading disorders.

In the area of written expression, David's performance on one subtest is within normal limits (WJ-III Writing Fluency: SS-100), while his performance on another subtest is on the cusp of a normative weakness (WJ-III writing samples: SS-85). These findings are inconsistent with his teacher's reports of his writing performance as far below that of his peers. A review of the qualitative differences between the two WJII writing task demands revealed that the writing fluency subtest contains a considerable amount of context clues (picture clues, words to use in sentences), which may have facilitated his performance. Although the writing samples subtest contains contextual clues as well, they are not present to the same degree as the former subtest. Less writing on some of the items was also noted. In class, the demands of writing area often greater than those found on this test. During an analysis of his writing samples, it was seen that he had difficulties with basic writing mechanics (spelling, punctuation). Based on this review, it is apparent that his teacher reports of his writing as an area of concern. Additional assessment was needed because only one of the current measures administered was on the cusp of a normative weakness (WS). The Written Expression subtest of the KTEA-II was administered because of its more open ended format than the WJ-III subtests and contains less contextual cues and is more consistent with David's writing curriculum. Thus, on the KTEA-II Written Expression subtest, David's performance was a normative weakness (SS-82) and falls below average. The Spelling subtest was also administered and found to fall well below average and is also a normative weakness. These latter findings, coupled with teacher reports, buttress the concern that the area of written language is in fact an area of weakness for David.

In the oral language domains, David's listening comprehension skills (WJ-III: LC-92) fall into the average range for his age and is fairly consistent with his verbal comprehension ability noted on the WISCIV-VCI. His oral expression skills also fall into the average range but at the cusp of the normative weakness range (WJ-III OE-86). It was noted that he sometimes had difficulty with word retrieval which affected his expression ability.

Exclusionary Factors

Although many possibilities related to David's observed learning difficulties had been raised and investigated during the RTI process, a careful review of the data focused on his family situation and impending parental divorce and episodes of ear infections and subsequent failure of a hearing screening at age 5. In review of the data, his problems do not appear to be attributed to factors such as cultural-linguistic differences, sensory-motor impairment or economic disadvantage. In terms of external or non-cognitive factors, David has had longstanding academic difficulties that were noted in preschool with speech and language prior to his parents' marital difficulties so it does not appear to be the case that his parents' separation and divorce are the primary cause of his difficulties. He has also had intensive academic intervention and has failed to respond with much success. In terms of his past failure of an audiometric screening, it is likely that hearing issues during that important time for language development could have played some role, and could have been somewhat of a contributing factor in his learning issues, but they could not be reasonably considered as the primary cause of his difficulties. He has not failed a screening since that time nor had ear infections. It should also be noted that his birth history is relevant in that children with low

birth weight and prematurity are known to be at higher risk for learning issues. Having considered and rejected reasonable hypotheses related to potential external factors causing his learning difficulties, it is appropriate to continue the assessment process.

Inter-Cognitive Analysis: Performance in Abilities/Processes and Learning Efficiency

David's performance on the Long Term Retrieval Cluster (Glr) is rather variable as the confidence bands do no consistently overlap; therefore a cluster average was not calculated. However, all of the individual subtests fall at the cusp of or in the normative weakness range. This cluster is a measure of associative memory and retrieval fluency. These findings indicate that David associative memory skill falls into the lower part of the average range (WJ-III: Visual auditory learning: SS- 87; and DEL: SS-86). However, his ability to quickly /automatically provide a very specific verbal response was deficient (WJ-III Rapid Picture Naming: SS- 68; KTEA-II Naming Facility: SS-68) and a normative weakness. This involves naming letters, numbers, objects and retrieving names of items by category under timed conditions. Difficulty with rapid automatic naming is implicated in difficulty with basic reading skill, and most notably, with reading fluency. These are both areas of weakness academically for him. Trouble with word recognition in combination with trouble in reading fluency produces difficulty with the comprehension of text.

David's performance on the Crystallized Intelligence Cluster (Gc) is within normal limits (SS-95). Within this domain, it was found that his verbal reasoning and comprehension on the WISCIV fall within the average range, while his performance on the vocabulary subset on this measure was a normative weakness. This may be due to retrieval issues noted during testing on the oral expression and on the long term retrieval cluster GLR- in which his naming facility skills are below average and represent normative and personal weaknesses for him. The Gc domain could negatively impact his academic functioning and could be a contributing factor to his current academic difficulties.

On the Auditory Processing Cluster (Ga), his broad score was more difficult to interpret due to variability in his performance on narrow clusters. His performance on Sound Blending, a measure of phonetic coding (PC: SS-80) represented a normative weakness, whereas his performance on the Auditory Attention, a measure of speech sound discrimination and a resistance to auditory stimulus distortion was within normal limits. Given this discrepant performance, the phonological awareness measure from the KTEA-II was administered (PA: SS-80). It was consistent with his performance on the first measure of phonetic coding and suggests that his ability to analyze and segment sounds in words is deficient. So, only one aspect of Ga was deficient, namely phonetic coding. Phonetic coding plays a role in the development of early reading and writing skills. This weakness likely plays a role in his difficulty in decoding unknown words and will likely affect his writing, particularly spelling as well. It is also not unusual for individuals with early history of speech articulation issues (and language) to have trouble with the development of early reading skills.

In the area of short term memory, David's performance was a normative weakness (Gsm- 80). The test items were relatively short (number sequences/numbers and letters sequences) and indicate difficulty with short term auditory recall and verbal working memory). It is likely that these short term memory difficulties, particularly working memory, are related to not only reading and writing, but across the curriculum. This may specifically affect memory for math facts and reading comprehension.

In contrast to his GC, Ga, and Glr abilities, David's performance on tasks on fluid intelligence (Gf: SS-100) fall within the average range/normal limits. On subtests involving nonverbal reasoning and

nonverbal concept formation, David's abilities are in the average range. Although Gf has demonstrated relationships with reading and writing achievement, it is most strongly related to math achievement, an area in which he has historically excelled. It is important to note that although he has recently begun to experience difficulty in math, these problems appeared confined to word problems and are likely more related to his difficulty with reading that an underlying math deficit.

David's functioning in the Gv area (Visual Processing) is somewhat variable, with both narrow abilities fall within the average or above average range. Since neither represents a normative weakness, no further evaluation is needed in this area. This suggests that his ability to analyze and synthesize visual stimuli is at least comparable or above his peers. Although Gv has shown some relations with higher level mathematics, it is relative unrelated to reading and writing skill development. This reveals that his academic difficulties are not a function of a global ability deficit. This may help develop interventions, for example, but pairing verbal information to be learning with meaningful visual stimuli (graphic organizers, visual supports for reading and writing tasks).

David's Processing Speed (SS- 95) falls into the average range. Gs is sometimes though of a s a facilitator/inhibitor in that poor Gs can affect a student's ability to efficiently process and work with information.

Exclusionary Factors: Review of factors

Alternate explanations for his academic difficulties were considered and reasonable hypotheses related to potential external factors causing his learning difficulties, were rejected as being the primary cause of academic difficulties.

Integrated Ability Analysis: Evaluation of Underachievement- Consistency

The documented cognitive deficits in Ga, Glr (naming facility), and Gsm are empirically related to David's academic difficulties as determined on the academic assessment (i.e., reading and writing). That is, David's difficulty with one aspect of Ga was deficient, namely phonetic coding, which plays a role in the development of early reading and writing skills. This weakness has a negative impact on his difficulty in decoding unknown words and will likely affect his writing, particularly spelling. Some difficulty with retrieval of words is noted in his oral expression as well as with reading. His weakness in naming facility is also related to his trouble with the automaticity of word recognition. This has been shown to be empirically related to reading fluency and to comprehension of written text, thus affecting his ability comprehend what he reads. Rather than having an actual deficit in his ability to comprehend what he reads, it seems that his lack of reading fluency affects his comprehension. Because he cannot read words quickly enough, he has trouble at times deriving meaning from text. Additionally, it is likely that the short term memory difficulties (particularly working memory) noted are related to not only reading and reading, but across the curriculum. This may also affect memory for math facts and writing, which is reported by his teacher. In summary, there is consistence between the observed academic deficits and the cognitive deficits presumed to underlie them.

There is also sufficient evidence to support the notion of a normal pattern of functioning in areas largely unrelated to the development of reading and writing skills. This evidence includes average/intact functioning in the areas of fluid reasoning (Gf), visual processing (Gv), and processing

speed (Gs). These areas are more largely related to the acquisition of mathematics skills, which are areas of relative strength and within normal limits. Gc is also within normal limits. So, based on this data, it appears that David has circumscribed academic and cognitive deficits within an otherwise normal ability profile. These findings rule out the possibility that performance might be due to a broad cognitive and academic impairment. This pattern of results, then, provides evidence to also support the notion of underachievement within an otherwise normal ability profile.

Evaluation of Interference with Functioning

A broad array of data was obtained from David's teacher, curriculum based measures, current standardized testing findings, and behavioral observations to document that his academic and cognitive difficulties have a prominent impact on his school functioning. He has been previously been retained and has received various levels of increasingly greater intervention since starting formal schooling. He has failed to adequately respond to these interventions. David's daily classroom performance is affected by his learning difficulties, most notably in the language arts domains of reading and writing. He has not attained benchmarks in the many of the English language arts areas of reading and writing. His performance on unit tests are typically well below average for his age and he struggles with writing assignments.

Recommendations

Reading

Systematic and direct instruction in phonemic awareness: noticing, identification and manipulation the sounds of spoken language, and phonics-how letters and letter groups represent the sounds of spoken language and how they can be blended to make words.

Upon the commission of oral reading errors, provide David with immediate corrective feedback (i.e., model the appropriate pronunciation of the word).

Consider utilizing books on tape for selective reading assignments (e.g., assigned novels or text containing several new technical words). This technology can provide him with the opportunity to process information in multiple modalities as well as provide him with a model to follow when attempting to decode words in general.

Teach David a comprehension strategy such as PQ3R to provide a structured method of comprehension of written text.

Teach David to use graphic organizers when writing to provide a visual display to facilitate the writing process and capitalize on his visual strength.

To improve reading fluency, reading practice is generally recognized as an important contributor to fluency. An instructional approach has been used to teach reading fluency is guided repeated oral reading, which would encourages David to read passages orally with systematic and explicit guidance and feedback from the teacher.

Providing techniques such as task restructuring and repeated exposure (including having the student encounter words in various contexts) would be helpful by enhancing vocabulary development.

Two methods for improving comprehension include the Direct Explanation approach which focuses on the teacher's need to explain explicitly the reasoning and mental processes involved in successful reading comprehension. For example, rather than teach specific strategies, David would be helped to (1) to view reading as a problem solving task that necessitates the use of strategic thinking, and (2) to learn to think strategically about solving comprehension problems. For example, his teachers could teach the skill of finding the main idea by casting it as a problem-solving task and reasoning about it strategically.

Transactional Strategy Instruction also emphasizes the teacher's ability to provide explicit explanations of thinking processes. It emphasizes the facilitation of discussions in which David could collaborate to form joint interpretations of text and acquire a deeper understanding of the mental and cognitive processes involved in comprehension.

Provide David with the opportunity to take tests orally as needed and have extended time on tests as needed.

To address long term memory retrieval issues, provide opportunities for over-learning, review and repetition of information to be learned.

Memory and Learning

Within the context of his academic support program, David's teachers can teach him to use a variety of strategies (e.g., rehearsal, chunking, use of mnemonic devices, visualization) to increase the likelihood of him remembering specific information.

Attending to and thinking about the material to be learned (active learning) is necessary for acquisition of new knowledge. Interventions that emphasize active engagement in the learning process, rather than being a passive recipient of instruction, may be especially helpful for David.

Rehearsal is often an important factor in learning. Because knowledge accumulates over time, David may benefit from shorter sessions at repeated intervals rather than one long session. For example, when first learning, David may benefit from multiple rehearsals each day, then each week, then each month, and so on. This cycle of rehearsal and review reinforces knowledge and facilitates recall of information. Varying the learning tasks, incorporating emotions and novelty, and fostering creativity are good ways to enhance acquisition of knowledge.

Accommodations may be useful in compensating for David's limitations in working memory. Some examples include keeping oral directions short and simple, asking David to paraphrase directions to ensure understanding, and providing visual cues for directions or steps to be followed. He will also need extended wait time to respond to questions and extended time on tests, particularly as the curriculum gets more challenging.

Math

Consider providing David with a list of key math terms to assist him in the completion of math word problems. This list could potentially also be used as an aid during math exams where the goal of the

exam is to assess specific computational skills as opposed to assessing knowledge of mathematical concepts.

To minimize the demands on David's working memory during writing tasks, allow him to focus on one aspect of writing at a time (e.g., organizing thoughts, developing content, focusing on basic mechanics).

Due to some difficulty with retrieval of math facts, David should use a math facts chart (addition, multiplication) to free up working memory space to solve the math problem more efficiently.

Spelling and Writing

Provide David with a list of commonly misspelled words card to use during writing assignments, if he utilizes a word processing program for writing assignments, encourage the use of the spell-check function.

Use of a graphic organizer for writing assignments would help facilitate the writing process for David.

APPENDIX C

Table of IDEA LD Achievement Areas, CHC Abilities, and Measurements

The following table depicts the 8 achievement areas that are defined in IDEA aligned to the CHC abilities that are subsumed by the achievement areas. The table then lists the tests and measurement tools that assess within those ability areas.

Table 8. IDEA LD Achievement Areas, CHC Abilities, and Measurements

LD Achievement Area	CHC Narrow Ability	WJ – III Achievement Tests	Supplementary Norm-Referenced Examples		Criterion Referenced and Progress Monitoring Measurements
			Comprehensive Achievement Batteries	Tests Developed to Measure Skills in Achievement Areas	
Basic Reading Ability	Reading Decoding (RD) Phonetic Coding: Analysis (PC:A) Phonetic Coding: Synthesis (PC:S)	Test 1: Letter-Word Identification Extended Battery: Test 13: Word Attack	**KTEA-II** Letter Word Recognition Nonsense Word Decoding **WIAT-II** Word Reading Pseudoword Decoding	Comprehensive Test of Phonological Processing (CTOPP) Gray Diagnostic Reading Test (GDRT – 2) Gray Oral Reading Tests (GORT-4) Phonics Based Reading Test (PRT) RAN/RAS Test of Early Reading Ability (TERA-3) Test of Phonological Awareness Test of Reading Efficiency (TOWRE) Test of Silent Word Reading Fluency (TOSWRF) Woodcock-Johnson III Diagnostic Reading Battery (WJ III DRB)	DIBELS AIMSWEB Star Early Literacy (SEL) Michigan Literacy Progress Profile (MLPP) Basal Reader Assessments Fountas & Pinnell Benchmark Assessments

LD Achievement Area	CHC Narrow Ability	WJ – III Achievement Tests	Supplementary Norm-Referenced Examples		Criterion Referenced and Progress Monitoring Measurements
			Comprehensive Achievement Batteries	Tests Developed to Measure Skills in Achievement Areas	
Reading Comprehension	Reading Comprehension (RC) Cloze Ability (CZ) Verbal (printed) Language Comprehension (V)	Passage Comprehension **Extended Battery:** Test 17: Reading Vocabulary	**KTEA-II** Reading Comprehension **WIAT-II** Reading Comprehension	Gray Diagnostic Reading Test (GDRT – 2) Gray Oral Reading Test (GORT-4) Gray Silent Reading Tests (GSRT) Phonics Based Reading Test (PRT) Test of Early Reading Ability (TERA-3) Woodcock-Johnson III Diagnostic Reading Battery (WJ III DRB)	AIMSWEB Qualitative Reading Inventory (QRI) Star Reading Fountas & Pinnell Benchmark Assessments Developmental Reading Assessment (DRA)
Reading Fluency Skills	Reading Speed (RS)	Reading Fluency	**KTEA-II** Word Recognition Fluency Decoding Fluency	Comprehensive Test of Phonological Processing (CTOPP) Gray Oral Reading Tests (GORT-4) Phonics Based Reading Test (PRT) RAN/RAS Test of Reading Efficiency (TOWRE) Test of Silent Word Reading Fluency (TOSWRF) Woodcock-Johnson III Diagnostic Reading Battery (WJ III DRB)	DIBELS AIMSWEB Fountas & Pinnell Benchmark Assessments Curriculum Based Measurement in Reading Developmental Reading Assessment (DRA) ISTEEP Qualitative Reading Inventory (QRI)

LD Achievement Area	CHC Narrow Ability	WJ – III Achievement Tests	Supplementary Norm-Referenced Examples		Criterion Referenced and Progress Monitoring Measurements
			Comprehensive Achievement Batteries	Tests Developed to Measure Skills in Achievement Areas	
Written Expression	Spelling Ability (SG) Writing Ability (WA) English Usage Knowledge (EU)	Test 7: Spelling Test 8: Writing Fluency Test 11: Writing Samples **Extended Battery:** Test 16: Editing	**KTEA-II** Written Expression Spelling **WIAT-II** Spelling Written Expression	Oral and Written Language Scales: Written Expression (OWLS: WE) Test of Early Reading Ability (TERA-3) Test of Early Written Language (TEWL-2) Test of Written Language (TOWL-3)	MEAP/MME Writing Rubrics
Mathematics Calculation	Math Knowledge (KM) Math Achievement (A3) Number Facility (N)	Test: 5: Calculation Test 6: Math Fluency	**KTEA-II** Math Concepts and Applications Math Computation **WIAT-II** Numerical Operations	Comprehensive Mathematical Abilities Test (CMAT) Key Math-Revised/ NU (KM-R/NU)	AIMSWEB mCLASS Math Monitoring Basic Skills Progress (MBSP) Star Math
Mathematics Reasoning	Math Achievement (A3) Math Knowledge (KM) Quantitative Reasoning (RQ)	Test 10: Applied Problems **Extended Battery:** Quantitative Concepts	**KTEA-II** Math Concepts and Applications **WIAT-II** Math Reasoning	Comprehensive Mathematical Abilities Test (CMAT) Key Math-Revised/ NU (KM-R/NU)	mCLASS Math Monitoring Basic Skills Progress (MBSP) Star Math

LD Achievement Area	CHC Narrow Ability	WJ – III Achievement Tests	Supplementary Norm-Referenced Examples		Criterion Referenced and Progress Monitoring Measurements
			Comprehensive Achievement Batteries	Tests Developed to Measure Skills in Achievement Areas	
Listening Comprehension	Listening Ability (LS) Language Development (LD) Receptive Lexical Knowledge (VL) Receptive	Test 4: Understanding Directions Extended Battery: Test 15: Oral Comprehension	**KTEA-III** Listening Comprehension **WIAT-II** Listening Comprehension	Clinical Evaluation of Language Fundamentals (CELF-4) Comprehensive Assessment of Spoken Language (CASL) Comprehensive Receptive & Expressive Vocabulary Test Peabody Picture Vocabulary Test (PPVT-III) Receptive One-Word Picture Vocabulary Test (RO-WPVT) Test of Early Language Development (TELD-3) Test of Language Development (TOLD) The WORD test (WORD-2) Listening Comprehension Test (LCT) Comprehensive Test of Phonological Processing (CTOPP)	Brigance Listening Comprehension

LD Achievement Area	CHC Narrow Ability	WJ – III Achievement Tests	Supplementary Norm-Referenced Examples		Criterion Referenced and Progress Monitoring Measurements
			Comprehensive Achievement Batteries	Tests Developed to Measure Skills in Achievement Areas	
Oral Expression	Oral Production and Fluency (OP) Language Development (LD) Expressive Lexical Knowledge (VL) Expressive	Test 3: Story Recall Extended Battery: Test 14: Picture Vocabulary	**KTEA-III** Oral Expression **WIAT-II** Oral Expression	Clinical Evaluation of Language Fundamentals (CELF-4) Comprehensive Assessment of Spoken Language (CASL) Comprehensive Receptive & Expressive Vocabulary Test (CREVT-2) Expressive One Word Vocabulary Test (EO-WPVT) Expressive Vocabulary Test (EVT) Gray Diagnostic Reading Test (GDRT – 2) Test of Early Language Development (TELD-3) The Word Test (WORD-2) Test of Language Competence (TLC)	MLPP Expressive Language

Table Compiles Information from the Following Sources:
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National Center on Response to Intervention Progress Monitoring Tools;
http://www.rti4success.org/chart/progressMonitoring/progressmonitoringtoolschart.htm#

APPENDIX D

Table of CHC Abilities, Measurements and Relation to Academic Achievement

The following table provides a definition of the 7 Cattell-Horn-Carroll ability areas in alignment to the subtests that measure skills within those clusters. The table then provides information as to validity research on the relationship of the CHC abilities within the broad achievement areas of Reading, Mathematics, and Writing.

Table 9. CHC Abilities, Measurements and Relation to Academic Achievement

7 CHC Broad Abilities	CHC Narrow Abilities		(Basic) W-J III Cognitive Measurement	(Advanced) Cross-Battery Cognitive Measures	Relation Between Ability and Academic Achievement		
Broad Ability	**Ability**	**Definition**			**Reading**	**Math**	**Writing**
Comprehension-Knowledge (Gc) **Definition:** *The breadth and depth of knowledge including verbal communication and information. Reasoning, when using previously learned procedures, is also included.*	**Language Development (LD)** **Significantly related to reading achievement*	General development or the understanding of words, sentences, and paragraphs (not requiring reading) in spoken native language skills.	**Test 1 Verbal Comprehension** *Picture Vocabulary* *Synonyms* *Antonyms* *Verbal Analogies* Extended Battery: General Information	**K-ABC** *Expressive Vocabulary* *Verbal Knowledge* *Riddles* **WISC-IV** *Vocabulary* *Information* *Similarities* *Comprehension* *Word Reasoning* **WAIS-III** *Vocabulary* *Information* *Similarities* *Comprehension* **WPPSI-III** *Vocabulary* *Information* *Similarities* *Comprehension* *Receptive Vocabulary* *Picture Naming* *Word Reasoning*	**Language development, lexical knowledge, and listening ability are important at all ages. These abilities become more important with age.**	**Language development, lexical knowledge, and listening ability are important at all ages. These abilities become more important with age.**	**AFTER AGE 7, language development, lexical knowledge, and general information are important. These abilities become increasingly more important with age.**
	Lexical Knowledge (VL) **Significantly related to reading achievement*	Extent of vocabulary that can be understood in terms of correct word meanings.					
	General Verbal Information (KO)	Range of general knowledge.					

7 CHC Broad Abilities	CHC Narrow Abilities		(Basic) W-JIII Cognitive Measurement	(Advanced) Cross-Battery Cognitive Measures	Relation Between Ability and Academic Achievement		
Broad Ability	**Ability**	**Definition**			**Reading**	**Math**	**Writing**
Long-Term Retrieval (Glr) **Definition:** The ability to store information efficiently and retrieve it later through association.	**Associative Memory (MA)**	Ability to recall one part of a previously learned but unrelated pair of items when the other part is presented (i.e., paired associative learning).	Test 2: Visual-Auditory Associative Memory Test 10: Delayed Visual-Auditory Learning – Delayed *Associative Memory* Extended Battery: Retrieval Fluency *Ideational fluency*	**K-ABC** *Atlantis* *Rebus* *Atlantis Delayed* *Rebus Delayed*	**Naming facility (NA) or rapid automatic naming is very important during the elementary school years. Associative memory (MA).**		Naming facility (NA) or rapid automatic naming has demonstrated relations with written expression, primarily the fluency aspect of writing.
	Ideational Fluency (FI)	Ability to produce rapidly a series of ideas, words, or phrases related to a specific condition or object.					
	Naming Facility (NA) **Significantly related to reading achievement*	Ability to produce rapidly names for concepts.					
	Meaningful Memory (MM)	Ability to recall a set of items where there is a meaningful relation between items or the items comprise a meaningful story or connected discourse.					

7 CHC Broad Abilities	CHC Narrow Abilities		(Basic) W-JIII Cognitive Measurement	(Advanced) Cross-Battery Cognitive Measures	Relation Between Ability and Academic Achievement		
Broad Ability	**Ability**	**Definition**			**Reading**	**Math**	**Writing**
Visual-Spatial Thinking (Gv) **Definition:** Spatial orientation, the ability to analyze and synthesize visual stimuli, and the ability to hold and manipulate mental images.	**Visualization (VZ)**	Ability to mentally manipulate objects or visual patterns and to see, in the "mind's eye", how they would appear under altered conditions.	Test 3: Spatial Relations *Visualization* *Spatial Relations* **Extended Battery:** Test 13: Picture Recognition *Visual Memory* Test 19: Planning *Spatial scanning* *General sequential reasoning*	**K-ABC** Face Recognition Triangles Gestalt Closure Rover Block Counting Conceptual Thinking **WISC-IV** Block Design Picture Completion **WAIS-III** Block Design Object Assembly Picture Arrangement Picture Completion **WPPSI-III** Block Design Object Assembly Picture Completion	Orthographic procession	May be important primarily for higher level or advanced mathematics (e.g., geometry, calculus.)	
	Spatial Relations (SR)	Ability to perceive and manipulate visual patterns or to maintain orientation with respect to objects in space.					
	Visual Memory (MV)	Ability to form and store a mental representation or image of a visual stimulus and then recognize or recall it later.					
	Spatial Scanning (SS)	Ability to survey a spatial field or pattern accurately and identify a path through the visual field or pattern.					

CHC Broad Abilities	CHC Narrow Abilities		(Basic) W-JIII Cognitive Measurement	(Advanced) Cross-Battery Cognitive Measures	Relation Between Ability and Academic Achievement		
Broad Ability	**Ability**	**Definition**			**Reading**	**Math**	**Writing**
Auditory Processing (Ga) **Definition:** The ability to discriminate, analyze, and synthesize auditory stimuli. Also related to phonological awareness.	**Phonetic Coding (PC)** **Significantly related to reading achievement*	Ability to process speech sounds, as in identifying, isolating, and blending sounds-phonological awareness.	Test 4: Sound Blending *Phonetic Coding: Synthesis* Test 8 Incomplete Words *Phonetic Coding: Analysis*	**K-ABC** **WISC-IV** **WAIS-III** **WPPSI-III**	**Phonological coding (PC) or phonological awareness is very important during the elementary school years.**		Phonological coding (PC) or phonological awareness or processing are very important during the elementary school years for both basic writing skills and written expression (primarily before age 11).
	Resistance to Auditory Stimulus Distortion (UR)	Ability to understand speech that has been distorted or masked in one or more ways.	**Extended Battery:** Test 14 Auditory Attention *Speech-sound discrimination* *Resistance to auditory stimulus distortion*				
	Speech-Sound Discrimination (US)	Ability to discriminate particular phonemes or speech sounds.					

7 CHC Broad Abilities	CHC Narrow Abilities		(Basic) W-JIII Cognitive Measurement	(Advanced) Cross-Battery Cognitive Measures	Relation Between Ability and Academic Achievement		
Broad Ability	**Ability**	**Definition**			**Reading**	**Math**	**Writing**
Fluid Reasoning (Gf) **Definition:** The ability to reason and solve problems that often involve unfamiliar information or procedures. Manifested in the reorganization, transformation, and extrapolation of information.	**General Sequential Reasoning (RG)** **Significantly related to math achievement*	Ability to start with stated rules, premises, or conditions and to engage in one or more steps to reach a solution to a problem.	**Extended Battery:** Analysis-Synthesis *Sequential reasoning* *Test 19: Planning* *Spatial scanning* *General sequential reasoning*	**K-ABC** Pattern Reasoning Story Comprehension **WISC-IV** Matrix Reasoning Picture Concepts **WAIS-III** Matrix Reasoning **WPPSI-III** Matrix Reasoning Picture Concepts	Inductive (I) and general sequential reasoning (RG) abilities play a moderate role in reading comprehension.	**Inductive (I) and general sequential reasoning (RG) abilities are consistently very important at all ages.**	Inductive (I) and general sequential reasoning (RG) abilities are related to basic writing skills primarily during the elementary school years (e.g., 6 – 13) and consistently related to written expression at all ages.
	Induction (I) **Significantly related to math achievement*	Ability to discover the underlying characteristic (e.g., rule, concept, process, trend, class membership) that governs a problem or a set of materials.	Test 5: Concept Formation *Induction*				

7 CHC Broad Abilities	CHC Narrow Abilities		(Basic) W-JIII Cognitive Measurement	(Advanced) Cross-Battery Cognitive Measures	Relation Between Ability and Academic Achievement		
Broad Ability	Ability	Definition			Reading	Math	Writing
Processing Speed (Gs) **Definition:** Speed and efficiency in performing automatic or very simple cognitive tasks.	**Perceptual Speed (P)** **Significantly related to reading, math, and writing achievement*	Ability to search for and compare rapidly visual symbols presented side by side or separated in a visual field.	**Test 6: Visual Matching** *Perceptual speed* Test 16: Decision Speed *Semantic processing speed* **Test 18: Rapid Picture Naming** *Naming facility* **Extended Battery:** **Test 20: Pair Cancellation** *Attention & concentration*	**K-ABC-II** **WISC-IV** Symbol Search Coding Cancellation **WAIS-III** Symbol Search Digit Symbol Coding **WPPSI-III** Coding Symbol Search	**Perceptual speed (P) is very important during all school years, particularly the elementary school years.**	**Perceptual speed (P) is very important during all school years, particularly the elementary school years.**	**Perceptual speed (P) is very important during all school years, for basic writing and related to all ages for written expression.**
	Semantic Processing Speed (RA)	Speeded performance requiring encoding and mental manipulation of content.					
	Attention/ Concentration (AC)	Identified as a possible ability in some studies, may be related to personality characteristics such as carefulness or impulsivity, and/or cognitive abilities in the domain of processing speed.					

7 CHC Broad Abilities	CHC Narrow Abilities		(Basic) W-JIII Cognitive Measurement	(Advanced) Cross-Battery Cognitive Measures	Relation Between Ability and Academic Achievement		
Broad Ability	**Ability**	**Definition**			**Reading**	**Math**	**Writing**
Short-Term Memory (Gsm) **Definition:** The ability to hold information in immediate awareness and then use it within a few seconds, also related to working memory.	**Memory Span (MS)** ***Significant relationship to writing and to working memory in reading, math and advanced writing skills.	Ability to attend to and immediately recall temporally ordered elements in the correct order after a single presentation.	Extended Battery: Test 17: Memory for Words *Memory span*	**K-ABC-II** Number Recall Word Order Hand Movements **WISC-IV** Digit Span Letter-Number Sequencing **WAIS-III** Symbol Search Digit Symbol Coding **WPPSI-III** Coding Symbol Search	Memory span (MS) is important especially when evaluated **within the context of working memory**.	Memory span (MS) is important especially when evaluated **within the context of working memory**.	**Memory span (MS) is important to writing, especially spelling skills whereas working memory has shown relations with advanced writing skills (e.g., written expression).**
	Working Memory (MW)	Ability to hold information in mind for a short time while performing some operation upon it.	Test 7: Numbers Reversed *Working memory* Test 9: Auditory Working Memory				

Table summarizes information from Table 5-4. Definitions of Seven CHC Broad Abilities Measured by the WJ III Cog (p. 76) ; Table 5 – 5. Broad and Narrow Abilities Measured by the WJ III Cog (p. 76); Table 5-6.Definitions of Narrow Abilities Measured by the WJ-III Cog; Mather and Woodcock, 2001 Examiner's Manual Woodcock-Johnson III Tests of Cognitive Abilities, Riverside Publishing and Table 2/14. Summary of Findings on Relations between CHC Abilities and Academic Achievement (p. 45), Flanagan, et al. (2006) The Achievement Test Desk Reference: A Guide to Learning Disability Identification, John Wiley & Sons, New Jersey. Flanagan, Ortiz, Alfonso (2007) Essentials of Cross-Battery Assessment: 2nd Education. John Wiley and Sons. Hoboken, New Jersey.

APPENDIX E

Exploring Consistencies: Summary of Significant Relationships between CHC Cognitive Factors and Achievement Areas

The table that follows summarizes research on the significant relationship between CHC cognitive clusters and academic achievement areas. The tables were created based on research from: McGrew, K. S. & Wendling, B. J. (2009). CHC cognitive-achievement relations: What we have learned from the past 20 years of research. (Institute for Applied Psychometrics). Retrieved September, 2009 from http://www.iapsych.com/chccogachmeta2/map.htm

Table 11. Exploring Consistencies: Summary of Significant Relationships between CHC Cognitive Factors and Achievement Areas

CHC Cognitive-Achievement Relations

Basic Reading	6-8	9-13	14-19
Broad CHC			
Comprehension-Knowledge (Gc)	M	M	H
Long-Term Retrieval (Glr)	L		
Processing Speed (Gs)	M	M	
Short-term memory (Gsm)	L	H	H
Narrow CHC			
Phonetic Coding (Ga-PC)	M	M	M
General Information (Gc-K0)	L	M	M
Memory Span (Gsm-MS)		M	M
Working Memory (Gsm-MW)	M	M	M
Associative Memory (Glr-MA)	L		
Perceptual Speed (Gs-P)	L	M	L

Reading Comprehension	6-8	9-13	14-19
Broad CHC			
Auditory Processing (Ga)	M		
Comprehension-Knowledge (Gc)	H	H	H
Long-term Retrieval (Glr)		L	
Short-Term Memory (Gsm)	L		L
Processing Speed (Gs)	T/S	T/S	
Fluid Reasoning (Gf)			T/S
Visual Processing (Gv)			
Narrow CHC			
Working Memory (Gsm-MW)	H	H	H
Memory Span (Gsm-MS)			M
Phonetic Coding (Ga-PC)	L	T/S	L
Meaningful Memory (Glr-MM)		H	H
Naming Facility (Glr-NA)		M	L

Basic Math	6-8	9-13	14-19
Broad CHC			
Comprehension-Knowledge (Gc)		M	M
Fluid Reasoning (Gf)	M	M	M
Processing Speed (Gs)	M	M	M
Narrow CHC			
Phonetic Coding (Ga-PC)	M	M	T/S
Perceptual Speed (Gs-P)	H	H	H
Working Memory (Gsm-MW)	H	H	H

Math Reasoning	6-8	9-13	14-19
Broad CHC			
Comprehension-Knowledge (Gc)	L	M	H
Fluid Reasoning (Gf)	H	H	M
Processing Speed (Gs)	M	M	
Short-Term Memory (Gsm)			L
Narrow CHC			
Phonetic Coding (Ga-PC)	M	L	L
Memory Span (Gsm-MS)	L		
Working Memory (Gsm-WM)	H	H	H

Consistency of significance: High(80% or above), Medium(50-79%), Low(30-49%), or Tentative/Speculative

Based on research from: McGrew, K. S. & Wendling, B. J. (2009). CHC cognitive-achievement relations: What we have learned from the past 20 years of research. (Institute for Applied Psychometrics). Retrieved September, 2009 from http://www.iapsych.com/chccogachmeta2/map.htm

APPENDIX F

The Relative Proficiency Index (RPI) Score

The Relative Proficiency Index score from the Woodcock-Johnson III/NU predicts a student's level of proficiency on tasks that typical age- or grade-level peers would perform with 90% proficiency. The following explanation may help with test score interpretation and the development of educationally relevant recommendations for students.

The Relative Proficiency Index (RPI) Score

The Woodcock-Johnson Relative Proficiency Index (RPI) "reflects the individual's *proficiency* on tasks which would be typically performed with 90% proficiency at that age/grade level. It presents a statement of *likely* success for similar tasks based upon performance within the tests." While percentiles and standard scores reflect relative standing in a group, they do not reflect the distance from the "average" performance. The Relative Performance Index answers the question "How far from average proficiency is a person's performance?"

The Difference Between RPI and Peer-Comparison Scores

A common misconception is that peer-comparison scores, such as standard scores or percentile ranks, indicate ability or achievement levels. In fact, this is not true. Rather, they merely show a person's rank order or "place in the line"—the position in which his or her score falls within the distribution of scores obtained by age or grade peers in the norming sample. In contrast, the RPI describes the person's level of proficiency in the skill, ability, or area of knowledge based on the probability of his or her success on a specific level of task difficulty.

For example, for a 5.5 grade level students' standard score of 79, and an 11th percentile it can be inferred that, the students performance on the BWS subtest stands 21 points below the normative average for the subtest and that, out of 100 same grade level peers, 89 of those peers would perform better on that particular subtest.
However, when that data is supplemented by the statement that he/she obtains a 3/90 on the WJ-III Basic Writing Skills subtest, it is made clear that when given a 5.5 grade level task that his/her peers would perform with 90% accuracy, the student may perform with only 3% success. The proficiency level of the student is quite low. This last statement is much more descriptive of the "real world" performance of the student and become instructionally relevant when making placement decisions.

The RPI is represented as a fraction, with the person's expected level of success as the numerator and the 90% criterion as the denominator. For example, an RPI of 60/90 suggests that the person would be about 60% successful on a task that typical peers would perform with 90% success. The RPI captures the "real world" functioning (and relative frustrations) of the students and provides meaningful and instructionally relevant data that can be immediately applied in terms of placement or instruction design. Another possible analogy is…

"…On a high school track team, almost everybody, including distance runners and competitors in the weight events, can run 200 meters pretty quickly. Therefore, running even a few percentage points slower than the typical team speed (a couple of seconds slower) would give the lumbering runner a very low percentile rank and standard score, even though the RPI would be fairly high. That slow runner would not be very many seconds behind the typical runner (fairly high RPI), but would still come in behind most of the other runners (low percentile rank and standard score). However, only a few specialists can pole vault at all, much less well. Therefore, someone might make a pathetic attempt (not as high as he or she could high jump), a dismally small faction of the typical vaulting height (very low RPI) and still vault higher than a lot of teammates (relatively high percentile rank and standard score)…"

Reporting RPIs Using Descriptive Labels

A useful feature of the RPI as presented in the WJ-III is the choice of descriptive labels for different levels of proficiency, functioning, and development. In education, for example, "Proficiency" might be used to describe academic achievement, while "Development" might be used to describe cognitive and language abilities. "Implications" represents the individual's perceived level of difficulty or facility with the task (Schrank & Woodcock, 2002).

Sample Statements for Reporting RPIs

The following are examples of statements that might be used to describe an individual's RPIs (Mather & Jaffe, 2002, pp. 30–31). Specific wordings will vary depending on the achievement area or cognitive ability being addressed and the level of the RPI.

- Mark's level of proficiency on the Broad Mathematics cluster was limited (RPI 66/90). He is likely to find grade-level tasks requiring mathematics to be very difficult.

- Sam's RPI of 21/90 on the Phoneme/Grapheme cluster indicates that on similar tasks in which the average fourth-grade child would demonstrate 90% proficiency, Sam would demonstrate 21% proficiency. Sam's knowledge of phoneme-grapheme correspondence and spelling patterns is very limited. He is likely to find grade level reading and spelling tasks extremely difficult.

- Although Nicholas's standard score on the Basic Reading Skills cluster is within the average range for seventh-graders overall, his RPI (45/90) indicates that he will have considerably more difficulty than most of his grade peers in tasks requiring basic reading skills.

- Bryn's RPI of 98/90 on Visual-Spatial Thinking signifies advanced development. When average age peers demonstrate 90% accuracy on similar tasks, Bryn's expected accuracy would be approximately 98%. She is likely to find visual-spatial tasks very easy.

See Mather, N. & Jaffe, L. Woodcock-Johnson III Reports, Recommendations, and Strategies (2002) New York: John Wiley & Sons, Page 27 for interpretation tables.

APPENDIX G

Procedure for Determining CALP Using the Woodcock-Johnson-III Tests

Cognitive Academic Language Proficiency (CALP) indicates the English language proficiency skills necessary to perform adequately in school. Because the early stages of language acquisition proceed at a rapid pace, it is essential that evaluators obtain current language proficiency testing data to differentiate challenges that stem from second language learning as opposed to learning deficits stemming from learning disability factors.

Cognitive Academic Language Proficiency (CALP) Using Woodcock-Johnson III Tests

A Cognitive Academic Language Proficiency (CALP) level can be obtained using the Woodcock-Johnson III/NU if only Verbal Comprehension is administered since this represents the Verbal Ability-Std score. In the Program options section of the software program, you must select CALP as the additional score so it appears in the score report.

- COG: Verbal Ability-STD, Verbal Ability-EXT, Comprehension Knowledge (Gc)
- ACH: Oral Language-Std, Oral Language-Ext. Listening, Comprehension, Broad Reading, Reading Comprehension, Broad Written Language, Written Expression, and Academic Knowledge

If using the CALP level as an indicator of proficiency, any of the above clusters can be helpful.

However, if trying to use the CALP level as eligibility score (entrance/exit criteria) then it is recommended that you use the broadest clusters available:

CALP for Oral Language use Oral Language-Extended

CALP for Reading use Broad Reading

CALP for Written Language use Broad Written Language

> *See Mather, N. & Jaffe, L. Woodcock-Johnson III Reports, Recommendations, and Strategies (2002) New York: John Wiley & Sons, Page 27 for interpretation tables.*

APPENDIX H

Language and Learning Disability

Current research places a particular emphasis on the relationship between language development and learning disability in reading, writing and mathematics. This discussion reviews important considerations relative in identifying language-based learning disability.

Language and Learning Disability

What Is a Language-Based Learning Disability?
The American Speech-Language-Hearing Association (ASHA) defines a language-based learning disability as "problems with age-appropriate reading, spelling, and/or writing."

The ASHA definition ties the language-based learning disability to a reading or a writing disorder. ASHA further explains this correlation by highlighting the connection between speaking and writing. Manifestations of a language-base learning disability include:

- word-finding or word-searching difficulty
- lags in vocabulary comprehension
- lags in recall and ability to follow directions
- lack of acquisition of rote material such as math facts and multiplication tables
- inability to establish sound-symbol correlations

Language skills are not only tied to the obvious areas of learning disability such as oral expression and listening comprehension. They are necessary for success in math calculation and math problem solving which are also areas of eligibility for learning disability. Please refer to the ASHA website at www.asha.org for more information.

Current research places a particular emphasis on the relationship between language development and learning disabilities in reading, writing and mathematics. Findings indicate that language-based deficits occur with greater frequency than non-verbal processing deficits among the learning disabled population.

The child's language development history is a key indicator in the diagnostic process. The following aspects are to be considered:

- listening comprehension relative to reading comprehension
- vocabulary comprehension relative to naming and word identification
- auditory processing relative to decoding abilities
- spoken language relative to written language

How Is a Language-Based Learning Disability Identified?
Response-to-intervention (RTI) procedures and curriculum-based assessments will be utilized prior to formal evaluations. A pattern of strengths and weaknesses must be documented.

Within a team approach, the speech and language pathologist can play an important role in evaluating the role of language in the learning disability. Initial observations and interviews are conducted prior to the administration of tests. School records are reviewed including scores from group-administered tests. A battery of tests will be administered to rule out language disorders that are not considered to be elements of a language-based learning disability. Disorders of pragmatics, morphology and syntax may be present in students with language-based learning disability, but the presence of those deficits may not point directly to specific learning disability.

It should be noted here that speech language pathologists have historically treated children with significant delays and disorders of language for whom it is then realized that simply treating the delay or disorder through therapy does not seem to be an intervention of sufficient intensity to adequately remediate the student's needs. It is for these students that consideration of assessment results, the student's previous history and educational performance, and the findings relating to the diagnosis of a specific learning disability, should be closely examined. There may indeed be instances where a child is so significantly speech/language disordered that the diagnosis of a specific learning disability in the area of either oral language or listening comprehension may need to be considered as a more appropriate disability category.

In addition, the team must differentiate between influences of ELL issues, the lack of exposure to a language-rich learning environment, and life-long disabilities.

The Cattell-Horn-Carroll theory of cognitive abilities is the foundation upon which the assessment process will be based. The areas that relate to CHC narrow abilities in the areas of listening comprehension and oral expression are summarized below:

Listening Comprehension

- Phonological Coding: Synthesis
- Speech Sound Discrimination
- Memory for Sound Patterns
- Memory Span
- General Sound Discrimination
- Associational Fluency
- Semantic Processing Speed
- Lexical Knowledge - Receptive
- Listening Ability
- Verbal Language Comprehension
- General Information
- Information about Culture

Oral Expression

- Writing Ability
- English Usage Knowledge
- Communicative Ability
- Oral Production and Fluency
- Lexical Knowledge – Expressive
- Semantic Processing Speed

Evaluations will be conducted at each stage of the referral process. Initially, curriculum-based assessments and group-administered achievement tests will highlight areas of strengths and weaknesses. More specific evaluation tools will be utilized at later stages in accordance with best practices for identifying language disabilities.

When Could a Language Disability Not Be Considered as a Learning Disability?

- When there are overriding issues related to general language competence such as:
  - LEP/ELL issues
  - Pure morphological deficits
  - Pure syntactic deficits
  - Pure semantic deficits (delayed vocabulary development)
  - Spatial and temporal deficits

- When the language deficits **do not** negatively affect reading, writing or math skills to the degree that those skill areas test 1.5 standard deviations below the mean for the student's age.

- When the language deficits improve over time with therapeutic intervention by an SLP such that the point will likely be reached when the language disability/delay will no longer impact educational performance.

- When the language deficits are manifested primarily in oral expression. Language comprehension, as well as, reading comprehension is adequate.

- When a central auditory processing disorder has been diagnosed by an audiologist

- When an auditory processing disorder can be documented via a cross-battery assessment

Developmental language deficits must be differentiated from life-long language disabilities. The former may be remediated via specialized instruction and increased exposure to language instruction. The latter will require therapeutic techniques for utilizing strategies to compensate for the manifestations of the language-based learning disability.

For more information on language-based learning disability, refer to the ASAH website: http://www.asha.org/public/speech/disorders/LBLD.htm. The reader may also learn more about the relationship of CHC cognitive factors and achievement factors by visiting: www.iqscorner.com.

APPENDIX I

Directions for the 30 Minute Meeting

Efficient meetings are key to coordinating time, services, and decisions to be responsive to the needs of students and staff. Many schools use the 30 Minute Meeting Model for efficient planning. Ideally, the team would be so efficient that checks could be made on two or more students in the 30 minute time frame.

Directions for the 30-Minute Meeting

General purpose for the 30-minute team meetings:

• Identify major concerns regarding student progress, and then identify strategies or solutions to promote better results for agreed-upon goals

• Provide regular format for collaboration designed to review student work results and improve practice to meet measurable student achievement goals.

First Meeting Agenda:

1. Brainstorm solutions to student problems identified from data. Decide upon an achievement goal.
2. Generate possible strategies or solutions to begin to meet the goal.
3. Decide upon strategy or solution to address between now and next meeting.
4. Develop Action Plan.
6. Commit as a team to use the strategy or implement the solution and be ready to report results based on student work at the next meeting.
7. Determine what student work/data to bring to next meeting.
8. Include next meeting date, time, location, and leader. (Attach meeting schedule, if available).

Regular Meeting Agenda:

Meeting Purpose/Achievement Goal(s):

What is our established goal? (May be written in agenda in advance) (1 minute)

Action: (2 Minutes)

Description of what we decided to try.

Results:

What was the impact on learning and achievement?

What evidence of results do we have to report? (10 minutes)

Chief Challenges:

What difficulties did we encounter? (4 minutes)

Proposed Solutions/Action Plan:

What can we do to overcome these challenges? (10 minutes)

Student Work/Data to bring to next meeting:

What actual work or results will we bring to the next meeting?

Come prepared to report and discuss impact on student achievement.

Next Meeting:

When will the next meeting be held and who will be responsible for agenda and facilitation?

Team Meeting Report: What student achievement results did the team note at the meeting? What is the focus and action plan for the next meeting? (Complete summary form).

(From San Diego County Office of Education, 2005. Adapted from: Schmoker, M.J. (1999). *Results, 2nd Edition, The Key to Continuous School Improvement.* Virginia: Association for Supervision and Curriculum Development)

APPENDIX J

Stay Away From Interpretation Errors!

Stay Away From Interpretation Errors!

There are various misconceptions about SLD evaluation that diminish the validity of the eligibility decision. It is important to promote practices that are scientifically supported, evidenced based, guided by current theory and promotes involvement across multidisciplinary team members. Too often, practitioners are pressured to identify students as learning disabled to provide them with special assistance, to appease teachers, or to meet the demands of frustrated families. In these efforts, well intended evaluators have committed what is referred to by Flanagan, et al. (2007) as the "seven deadly sins". Those common errors are listed:

1. Relentless searching for intra-individual discrepancies.
2. Failure to distinguish between a "relative weakness" and a "normative weakness".
3. Obsession with the severe discrepancy calculation.
4. Belief that IQ is a near perfect predictor of any area of achievement and synonymous with "potential".
5. Failure to apply current theory and research.
6. Over-reliance on findings from single subtests and screening instruments.
7. Relying in a belief that aptitude and ability are one and the same.

It is readily apparent that the problems with previous practice, while well intended, are based on constructs of ability and discrepancy that have not held up to current research on abilities and learning disability. ***It will be important to be mindful of these interpretation fallacies when learning how to apply new principles for the analysis of pattern of strengths and weaknesses.***

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