The Riverside County Special Education Local Plan Area

"Alternate Means" Assessment Guidelines

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Introduction

These *"Alternate Means" Assessment Guidelines* integrate well with existing practices. This document was written to provide practitioners in Riverside County SELPA with alternative strategies to evaluate eligibility for special education when an IQ-Achievement discrepancy model is not appropriate. **The California Department of Education (CDE) has issued a directive to state special educators. LEAs are not to use intelligence tests in the assessment of African-American students referred for any special education services.** In lieu of IQ tests, the SELPA considered a review, interview, observe and test (RIOT) model, patterns of strengths and weaknesses (PSW), and the MATRIX models.

The alternate means assessment strategies promoted herein take an ecological approach to look at a student's strengths and weaknesses. The recommended first step in both the initial and reevaluation processes is to review existing evaluation data (REED). Employing the REED or RIOT model ensures that "all areas related to the suspected disability" are addressed instead of solely focusing on the learner through testing. Like the REED model, the first step in conducting an assessment is to review prior records or any other type of permanent product that might be relevant. Anyone with knowledge of the student and his or her skills should be interviewed. This might include teachers, administrators, parents, or the student herself. Multiple perspectives and input are crucial to decision making. It is important to observe the student in a classroom or other setting to actually see what is occurring. Whether to use structured or informal observational approaches should depend on what type of information is sought. Although considered last in the sequence, testing (standardized or criterion referenced) is sometimes the best way to get certain types of information.

Another "alternate means" assessment model is the pattern of strengths and weaknesses (PSW) model, which is based on the following core research-based principles: (1) Specific learning disabilities (SLD) are characterized by neurologically-based deficits in cognitive processing – a conclusion supported by a meta-analysis that found significant processing differences between students with SLD and students without SLD. (2) Research has demonstrated the existence of specific cognitive processes and sound tools and measures exist to assess these cognitive processing areas. (3) Research has found links between various cognitive processes and specific areas of academic achievement. In the PSW model, a comprehensive assessment is conducted to determine "why" a student is struggling in school – to look at analyzing the data differently, not at point score discrepancies.

Like the PSW model, the MATRIX system is designed to provide an organized, systematic, yet flexible system for gathering the necessary information to understand why a student may be struggling in school. The MATRIX system, developed by California's Diagnostic Center North, is a fair and non-biased assessment model; it meets the state's legal criteria and conforms to recommendations for the assessment of African American students; it reflects current knowledge about assessment; and it represents best practices for assessment of <u>all</u> students. The MATRIX model is a multifaceted system for assessing development using a variety of procedural methods: review of records and work sample, observations, interviews, informal and formal assessment without relying upon, or even requiring, administration of standardized tests. These guidelines are designed around this alternative means assessment model. Some of the common terms used are described in Appendix 1.

Linking Psychological Processing and Achievement Areas

The COMPARES model (see Appendix 2), which allows assessment teams a quick glance at the strength of the research link between the processing area and academic achievement area.

The Ventura County SELPA developed the following key of rating symbols for research associating processing and achievement areas:

(4) Strong convincing and consistent evidence of a strong to very strong relationship;

(3) Convincing evidence of a strong relationship but inconsistent findings;

(2) Partially convincing evidence for a moderate or relevant relationship but findings may be inconsistent, contradictory, or preliminary;

(1) Unconvincing evidence – research shows a weak relationship and/or in anecdotal rather than quantitative, lacks peer review, and/or has few or no bibliographic citations

(0) No research found that shows even a weak correlation.

The following chart illustrates how the basic psychological processes as described by the Education Code (attention, visual processing, auditory processing, sensory-motor skills, and cognitive abilities including association, conceptualization and expression) link to the domains addressed by the MATRIX system.

<table>
<tr><th colspan="2">Linking Basic Psychological Processes To MATRIX Domains</th></tr>
<tr><th>Auditory Processing</th><th>Attention</th></tr>
<tr><td>Language/Communication
Phonemic (receptive)
Short Term Recall (receptive, not Attention related)</td><td>Executive Function
Attention</td></tr>
<tr><th>Cognitive: Expression</th><th>Cognitive: Conceptualization</th></tr>
<tr><td>Language/Communication
Oral Fluency (expressive)
Writing Fluency (expressive)</td><td>Executive Function
Planning and Organization
Working Memory
Reasoning
Deductive Critical Thinking Skills
Inductive
Learns Rules</td></tr>
<tr><th>Visual Processing</th><th rowspan="2">Cognitive: Association</th></tr>
<tr><td>Visual-Spatial
Visual Memory (not Attention related)
Visual Motor Integration</td></tr>
<tr><th>Sensory Motor</th><td rowspan="2">Reasoning
Integration of Memory (Auditory, Visual, Kinesthetic)
Social Cognition
Knowledge from Environment/Cultural Competency
Learns Rules</td></tr>
<tr><td>Language/Communication
Writing Fluency
Visual-Spatial
Graphic Representation (Visual Expression)</td></tr>
</table>

Getting Started

Before you begin, think about two questions: What do I know? What do I need to know? You can use the Assessment Checklist (see Worksheet 1) to help the team through the alternate means assessment process.

Look at the MATRIX Quick Guides (see Worksheet 2) to determine what pieces of information you need to know more about. Review the domain information and use the guide sheet as a road map for how to go about obtaining the needed information. Remember to always use more than one procedural category when collecting data and filling in gaps of information about a student's level of functioning. Templates for collecting data are available in Appendices 4-10. You are ready to complete the MATRIX Profile once the information has been gathered and team members have collaborated.

The MATRIX Framework

Two perpendicular axes, one representing the Domains and the other representing the Procedural Categories, form the framework of the MATRIX.

- Five constructs that represent the broader strands of development are the Domains: Reasoning, Executive Functioning, Visual Spatial, Social Cognition, and Language.
- The procedural categories represent the various modes of data collection: observations, interviews, review of school records, informal assessment activities, and, if applicable, formal testing. The uniqueness of the MATRIX is how data is gathered using these procedures, with the goal to accurately capture what the student can and cannot do; and the ways abilities are expressed at school, in other settings; and under what circumstances the student is most likely to demonstrate capabilities and acquire new knowledge and skills.
- The MATRIX Profile is the final result of this process. It is completed collaboratively by the team involved in assessing the student. It is created by recording the information from each domain and procedure into the chart using the information gathered by the various evaluation team personnel. The process builds the student profile.

Collaboration is essential to using the MATRIX system as the alternate means assessment model. Representatives of all disciplines are equal members and effectively plan data collection methods to reduce duplication. The assessment team systematically collects and analyses varied data to understand a student's learning and communication and the best ways to meet the student's needs. These assessment procedures generate information across the critical domains of development that serve as foundations for learning and are critical for school success. Although the procedural charts displayed in the appendices are highly structured, the system is also flexible, allowing assessors to pick and choose among the useful strategies found in other models. It should be adapted according to the needs of the student, the type of referral questions, the available settings and conditions for data collection, and the preferences of the assessor. Implementation of this alternate means assessment system encourages the strategic use of novel, creative assessment activities to fill in critical gaps in available information or test competing hypotheses.

Procedural Categories

The procedural categories represent the various modes of data collection: review of records, observations, interviews, informal assessment activities, and, as applicable, formal testing.

Review of Records

The purpose of reviewing a student's school record is to obtain a global picture of his or her educational history. Such records may come from multiple sources and include various formats of information. A review of records should be done in the initial stages of the assessment process to see where and what gaps appear in the child's education. Sometimes a small piece of information in a record will provide the missing piece of the puzzle. The primary source for a

student's records is the cumulative folder (or "Cum Files"), which often contains the following information:

Attendance records	Report cards
School history, programs attended, and number of times moved	Health records, including vision and hearing screening
Standardized achievement test scores	Discipline or behavior reports
Student work samples (over time)	Anecdotal information

Many districts have a supplementary confidential file to maintain special education records. This file may be kept in a different location than the cumulative file. If the student is or was in special education, this file will include previous assessment reports, individualized education program (IEP) plans, and behavioral interventions (if relevant). A review of this file can provide information on who holds educational rights, the history of the student's special education services, and other important information. A Record Review Template is in Worksheet 3.

Observations

Observations provide samples of skills in context or a student's everyday life. Some students have skills they cannot demonstrate optimally in a test setting because of factors such as the unfamiliar context, test format, and/or task demands. Observations in their natural context provides opportunities to capture more, and richer, information about the student's ability to perceive, understand, and respond adaptively to his or her environment. Information gathered through this qualitative data-gathering process serves multiple purposes, including (1) environmental factors contributing to a student's learning; (2) cognitive strengths, weaknesses, and learning styles; and (3) behavioral needs. It is very likely that an observation of one situation will apply to multiple domains such as visual-spatial thinking, executive functioning, reasoning, contextual learning, and language development.

The examiner's role during an observation is to record a description which is as objective as possible that records what the examiner sees and hears in the observed environment and with the student being observed. Classroom observations are a key component of any school assessment. It is best practice to observe the student's participation in different types of activities (e.g., whole group vs. independent, structured vs. unstructured) and outside class as well (e.g., lunch, breaks, recess, passing periods). Quick guides for specific things to look for as indicative of each domain are cited in Worksheet 2 plus a template for recording observations is available in Worksheet 4.

To conduct a meaningful classroom observation, follow these steps:

1. Identify the purpose of the observation. Enter with a hypothesis so that there is a focus for the observation and be prepared to accept information that supports and/or contrasts with the hypothesis.
2. Prepare the teacher in advance by letting her know who you are, who you are observing, and that you would like this observation to be discrete. Knowing this, the teacher may ask for increased participation from the targeted student and/or provide you with work samples that can provide insight regarding the student's learning style.
3. It is best if the student does not know he or she is being observed. Try to blend into the background as much as possible. Look at the student without placing your eyes directly on him or her, using your peripheral vision to observe the student while making it appear that your eyes are focuses on something nearby. Employ listening skills to notice both what the student does and does not contribute. Another strategy is to engage a variety

of students, including the one being evaluated, and ask what they are learning, how they made their conclusions, comment on their problem-solving process, etc. This strategy gives the examiner an opportunity to see what the student is able to do and not do, how the student is able to articulate his or her own understanding of how to accomplish the task at hand, and to compare the observed student to peers.

4. Write down the information as it is being observed to ensure an objective observation. The more time that lapses between the observation and its documentation, the more likely subjective tints will be added to what actually occurred. Avoid subjective input such as ideas, thoughts, or opinions. Focus on the objective that can be seen, heard, smelled, and/or touched.

When observing, look for information that will help answer the questions you have before you. It is important to consider the student's background and environmental exposures prior to making conclusions. Conduct direct observations in structured and non-structured environments so you can learn the following:

- How the student functions in situations requiring planning, decision making, memory, attention, and related functions;
- Whether the student's reactions to social stressors (i.e., disagreements with others, timed tests, etc.) and environmental stressors (i.e., noise, physical position in classroom, time of day, etc.) are influenced by his or her ability to manage incoming information; if the student is overwhelmed, ask why.
- What is the student's method of problem-solving? Trial and error? Planning? Flexibility to reorganize strategy? Is the student cognizant of what he or she knows or does not know? What does this say about the student's *reasoning* and/or *executive functioning* skills?
- What is the pattern of the student's successes and failures? If he or she experiences mostly successes and then failure, does this speak to working memory being exhausted?
- Does the student generally experience success when she/he takes time to plan respond versus success for rote calculation or repetition of knowledge learned? How well does the student recognize errors and then proceed to make changes to help solve the problems? What can then be concluded about the student's *executive functioning skills*?
- Does the student perform better on tasks that involve building a structure using manipulatives? What signs tell you the student is frustrated when completing a paper-pencil maze? How does this relate to *visual-spatial thinking*?
- Does the student learn anything from successful completion of earlier tasks? Does the student perform better on tasks to which she/he has been environmentally exposed, or is the student applying previously learned concepts to novel situations? What does this say about the student's reliance on *contextual learning*?
- Is the student able to verbally describe how things are related? Can she/he categorize? How does this relate to *language development*?
- Example of the importance of Observation – in the aforementioned example of sorting, the examiner may want to know the length of time the student was required to sort by one or two dimensions, which task was first, or if there was a reinforcement system for completing trials. This information is important because it influences whether the conclusion could be that the student was tired, bored, minimally engaged, etc., or if the

two-dimensional sorting task was difficult because he or she may not have developed concept formation for different categories, pattern recognition skills, nonverbal reasoning skills, etc.

Interviews

Before beginning the interview process, review existing records and determine who you need to collect more information from – the parent, teacher, the student, and/or others. Quick guides for specific questions about each domain are cited in Worksheet 2 plus an Interview Data Collection Form is in Worksheet 5.

Interviewing Parents

Begin by accessing and reviewing forms and records which already contain information provided by the parents. These include the district or school nurse's health and developmental questionnaires, and information obtained from a review of records (including school health file and previous psychological reports). If this information is not available, have parents complete (or interview them using) a background or structured developmental history. Specific areas to review and obtain information about include pregnancy, birth, developmental milestones, medical history, family history, additional concerns during infancy and early childhood, and educational history. Interview questions specifically designed to use with parents are in Worksheet 5a.

Do not make assumptions about family members that are based on your cultural expectations of a reasonable family member. A parent's reluctance to participate in school activities, or not showing up for a meeting, or hesitancy to share information with school personnel should not be assumed to reflect a lack of concern for his or her child's education. Their reluctance may reflect other issues such as a personal history of negative experiences associated with schools or deference towards school personnel expertise. Also, parents may not have access to transportation, any flexibility in their work hours, or may be responsible for taking care of any problems that arise for extended family members (infants to elderly).

Do not assume that all members of an ethnic group share the same cultural values, identity, and beliefs. When you pose a direct question to a family member and he or she provides a lengthy response for which the relevance to the question is not immediately apparent (e.g., stories, anecdotes), do not assume she is avoiding the question or that she lacks the ability to understand the question or to respond directly and succinctly. Be careful to avoid snap judgments which may be based on unconscious stereotypes or generalizations about a person's presentation (e.g., speech, gestures, facial expressions, behavior, and physical appearance). During the interview, always ask for clarification or an example whenever the parent, student, or teachers uses non-descriptive language to describe behavior (e.g., he is a little bit noisy). When appropriate, request specific examples. The Diagnostic Center North (DNC) provides the following tips for *"culturally competent interviewing"*.

- If unfamiliar with the culture, seek help from a "cultural broker".
- Involve family members in the planning of the interview logistics. This may mean being creative with time frames to meet family needs.
- Preview the interview with the family members. Communicate the purpose of the interview and some sensitive questions you might ask.
- Be flexible and responsive to the family's interaction and interview styles. Establishing rapport is critical and it must be done in a genuine manner. Family members may not answer questions directly for various reasons:

- Many family members have a story telling way of communicating and will talk around the question before answering.
- Family members may be suspicious and will feel uncomfortable about answering certain questions. Building rapport first is most important.
- Communicate with family members how the information that is provided will help determine their child's educational needs.

- Examine why you are asking each question. Ask only those questions that will provide valuable information for your assessment.
- Speak naturally – do not attempt to conform to student's or family's speech style (e.g., using slang with an adolescent student).
- Remember that each individual and family is unique.

Interviewing Teachers

Prior to interviewing the student's teacher(s), it is important to build a foundation of what is known already and what you need to learn. For an initial evaluation request, review the team intervention documents, particularly the reason for referral. If it is a triennial assessment, review prior assessments and progress on the student's IEP goals. In all scenarios, look at the student's health record and discipline record (if any) along with the student's cumulative folder. The interview can be scheduled before and/or after observing the student to help determine when and what to observe. Collecting all this information prior helps taper the teacher interview and make best use of the time used to interview. Interview questions developed specifically to use with a teacher are in Worksheet 5b.

The teacher can also provide additional valuable information. Have the teacher rate the student compared to peers in areas such as school attendance, test scores, amount of homework completed and returned. To gage the student's performance in class, ask to see work samples and then compare them to the average, top, and bottom students. During or as soon as possible after conducting a classroom observation, get clarification from the teacher to determine if what you observed was typical for the student.

If either the record review or interviews suggest concerns in behaviors, emotional regulation, and/or social skills, have the teacher complete a broad band rating scale (i.e., BASC). Consider administering adaptive rating scales when there are concerns about overall cognitive functioning, language, independence skills, and behavioral disorders (i.e., ADHD, autism). Review and score the ratings. If there are inconsistencies or missing information or additional clarification is needed, check in with the teacher for clarification.

Interviewing the Student

Before interviewing a student, it is important to gather background information, including understanding the reason for referral (if initial) and completing a review of existing records. It is also useful to complete an observation prior to direct interaction with the student. A discrete observation allows one to notice patterns of behavior, responses, and learning style – which can then be discussed during the interview to get the student's perspective. Focusing in on what you hope to learn from the interview makes the best use of the time used to interview.

It is also important to inform the student why he or she is being pulled out of class so that he or she will be more comfortable and focused. Provide an honest explanation that also instills confidence and helps the student maintain a sense of self-esteem and self-acceptance. Begin by investing time to build rapport so that the student views you as someone they can trust. This is important because the student will be more comfortable answering questions honestly instead

of providing responses he or she thinks the interviewer would prefer. The student may also offer information spontaneously once rapport is established. Making the student feel relaxed and comfortable can also assist in bringing out his or her full potential during formal and informal assessment since diminished anxiety and apprehension reduces confounding variables and allows the student's full potential to shine.

Begin by "shootin' the breeze" – being curious about the student's hobbies, skills, and interests. Consider playing a game that will both gain the student's buy-in and provide diagnostic information. If the student is able to multi-task or seems interested, weave in some general questions to identify and/or validate the main areas of concern, as well as identify the student's strengths. Be prepared to be flexible and use unstructured and semi-structured interview formats that assist in making the student comfortable. Begin with general questions and then taper to more specific ones based on student responses and prior information. Interview questions to use with a student are in Worksheet 5c. You can adapt the questions to the student's chronological and developmental level.

Employ reflective listening skills when working with a student. Reflective statements that paraphrase a statement made by the student are helpful because they allow the student to feel heard. This is invaluable for a student that struggles in school because it gives him or her a voice and lets them know that they are understood. When an individual feels like their thoughts or opinions matter to someone, they will likely elaborate on a topic, offer their own input, and be more comfortable to correct any misinterpretations the interviewer concluded. Reflective listening is especially useful when discussing topics such as school struggles and ideas for intervention because the student is often aware of what could make school a more successful learning environment.

If either the record review or interview responses suggest concerns about the student's behavior, emotional regulation and/or social skills, have the student complete a broad band rating scale (i.e., the BASC). Follow up with more comprehensive social-emotional assessment if warranted. Consider administering adaptive rating scales when there are concerns about overall cognitive functioning, language, independence skills, and/or behavioral disorders.

Interviewing Others

Interviewing others familiar with the student can provide additional information regarding the student's cognitive functioning in each domain across different environments. Interview data can significantly expand the range of knowledge about a student's abilities. For instance:

- Finding out how the student is able to apply their abilities in a range of settings and situations outside school;
- To help you gain a clearer picture of the student's strengths and challenges;
- To determine the accuracy of previously collected information;
- For backup when you cannot observe reported skills (or lack of skills);
- To help determine what informal assessments to conduct; and/or,
- To gather information to facilitate building rapport with the student.

Identify who, other than the parent and teacher, you think you need to talk to in order to get a more comprehensive view of the student. Consider talking with an intervention specialist, after school program staff, counselor, coach, supervision aide, and other key players in the student's life. Such interviews can be conducted during and after your observation and testing. Create rapport with the interviewee by letting him or her know the purpose of the assessment [interview], with emphasis on your goal to assist the student and those working with him or her

to be successful. A goal of the interview is to get a clearer picture of the student beyond test scores. Interview questions to use with others are in Worksheet 5d.

Informal Assessment

In the context of the MATRIX, informal assessment includes a wide range of non-normed, non-standardized activities which provide opportunities for a student to demonstrate various strengths and challenges. The information derived from these activities complements data gathered through observations, interviews, work samples, and record reviews. Informal assessment may be used to gather general information about a student's functioning or to try out a hypothesis and clarify specific abilities. Informal assessment data often replace some data previously gathered through formal testing.

Informal assessment includes the record review, observation, and interview strategies previously described. It can include conversations, which may be spontaneous or directed. With strategic introduction of topics and use of prompts and cues by the assessor, conversations can provide opportunities to acquire information about the student's social cognition, expressive language, organization and sequencing of narrative material, and many other abilities. Informal assessment strategies can also include activities that provide opportunities for novel learning and a means to demonstrate one's skills. These can be unstructured or highly structured, occur indoors or outside, and include two or more people. The Quick Guides for assessing each domain (see Worksheet 2) provide a variety of activities one can use for gathering information informally. The list of games included within the Quick Guides provides suggested activities that are cross referenced with the MATRIX Domain Categories. This list is provided to assist you when considering potential informal activities and is not designed to be exhaustive. Some of the materials listed are readily found in classroom settings (e.g., preschool and primary grades). It is recommended the assessors select a few items they are comfortable using with a wide range of students so no extensive purchases need be made. In addition, the informal play-based observations can occur therein as well as or in lieu of in a separate testing environment.

Using informal measures such as games is only one of multiple measures used to identify a pattern of learning strengths and weaknesses in support of or to refute a hypothesis of a disability in a particular area. Although there are no norms, reliability or validity associated with using games, they can provide a means to record how a student uses reasoning, language/communication, social cognition, executive functioning, and/or visual-spatial skills given informal, play-based situations. It is important to include in your notes a description of the method in which the game(s) were played (e.g., verbal directions only, verbal directions and visual modeling provided). Taking note of what games parents and teachers say the student has actually been exposed to will provide reference to prior experience on performance. Worksheet 6 provides a template for recording notes from the informal assessment methods employed.

Formal Testing

"Formal testing" refers to the use of standardized, norm-referenced test batteries. Tasks are presented in accordance with specified procedures described in the examiner manuals that accompany the tests. The examiner is expected to follow prescribed procedures, including scripted task instructions, arrangement of task materials, and allowable repetitions or responses to student questions. Acceptable responses to obtain credit on an item are also clearly spelled out. This ensures that students tested have as similar as possible test experiences and that all students' scores are based on consistent criteria. These consistencies are cited as justification for deriving standardized scores based on age or grade level norms representing the population sample on which the test was normed. Standardization is also used to justify comparison of

different students' performances on the same test and to attribute meaning to differences in scores.

"Reliability" refers to an instrument's consistency. A ruler is reliable as it gives us the same units of measurement every time it is used, the readings can be used to compare, and thereby provide meaning. *"Validity"*, on the other hand, is about accuracy. It is not a simple yes or no answer. It has to do with how close you are measuring what you think you are measuring. Formal standardized tests have reliability and validity comments included in the test manual. Informal measures such as observations, interviews, and other activities are used to enhance descriptions about a student's functioning and performance.

Although the alternate means assessment process described within the MATRIX system focuses on other data collection methods, formal tests that are not prohibited by law may, at times, be useful adjuncts that complement other procedures, used to confirm or reject hypotheses, or to clarify and extend information gathered thus far. The *Larry P* decisions have been interpreted by the California Department of Education (CDE) to include a prohibition on any formal testing instrument purported to produce a measure of intelligence (cognition, mental ability or aptitude). The magnitude of the difference between the average scores of African American students and those of non-African American students suggest that these differences can play a large role in the misclassification of African American students as disabled. If a test is determined by CDE criteria to not be appropriate for African American students, then its subtests are also not appropriate. If you need to evaluate a new test against these criteria, Worksheet 10 is provided as a tool for analysis of test reliability and validity.

"Strategically selected tasks" taken from formal test batteries that are not prohibited by *Larry P* rulings and law may provide information that can be used to help confirm or reject specific hypotheses or to clarify and extend the findings obtained through other procedures. Tests that focus on specific neuro-developmental competencies (i.e., memory, executive functioning, and sensory-motor integration), and do not purport to assess overall cognitive ability, may be okay. The Quick Guides for assessing each domain (see Worksheet 2) provide a variety of tools one can use for gathering formal assessment data (e.g., subtests from the D-FETS, NEPSY-II, TAPS-3, WRAML-2, BASC-2, Roberts-2 Apperception Test, and Vineland Adaptive Behavior Scale 2nd Edition). Worksheet 7 provides a template for recording notes from the formal assessment methods employed.

The final caveat is: ***Never base any conclusion on test scores only. You should always have corroborating information obtained by another method.***

The Domains

The Domains focus on the five constructs that represent the broader strands of development: Reasoning, Executive Functioning, Visual Spatial, Social Cognition, and Language.

Reasoning

For the purposes of this MATRIX, the domain of Reasoning is the active process of solving a novel problem or situation. The rationale for including it is to determine whether inductively or deductively, an individual wrap their head around the nature of the problem to get to a solution. For learning, it is important for an individual to be able to reason; i.e. conceptualize the problem. Assessing reasoning skills has been a part of standardized testing procedures for years (e.g., pattern reasoning using abstract shapes, numbers, or pictures). For students with a suspected learning disability, this domain covers cognitive processes such as:

- *Deductive reasoning*: To start with a set of rules, premises or conditions and in a logical way reach a solution.

- *Inductive thinking*: Using observations to uncover the underlying characteristics of principles that govern a problem or situation.
- *Intuition*: The ability to make intuitive leaps in judgment by filling buy/in the details of either (or both) an inductive or deductive way. Being able to see the "Big Picture."
- *Novel problem solving*: The problem solving isn't of a rote; nature, e.g. the regurgitation of facts.
- *Problem solving that does not require much language*. Some may argue that thought cannot occur without language, however reasoning neither needs to be expressed, nor fully formed to work. Reasoning happens at the speed of thought which leads to actions. Words may, or may not, follow.

These type of tasks typically require finding a salient rule that is consistent and true in all circumstances (deductive) or a reorganization of presented data so that the most likely answer is chosen (inductive).

- *Inductive reasoning* is the process of taking isolated or specific pieces of information and identifying a common principal. It is known by other names like generalization, synthesis, and casual inference. Conclusions that are inductively made are based on observation.
- *Deductive reasoning,* on the other hand, is a step-by-step process where one arrives at an answer or conclusion based on generalizations of "truths." It is known by other names like alternate hypotheses testing, analytical, or logical thinking. Deductive reasoning builds from simple "truths" (facts or assumptions of fact) to more complex statements.

The statement, "If A then B" is an example of how one might apply deductive reasoning. Inductive reasoning can then be thought of as the inverse of deductive reasoning, where deductive reasoning goes from general principals to a specific, inductive reasoning goes from specific to general principle(s). Accuracy of the conclusion depends on the truth of the principles it is based on. If the principles are true then the answer must be true. For example:

1. Inductive Reasoning
    a. Observations
        i. Timmy is a green child and did well on the test.
        ii. Jimmy is a blue child and did poorly on the test.
        iii. Rachel is a green child and did well on the test.
        iv. Lisa is a blue child and did poorly on the test.
    b. Conclusion:
        i. An observation does not guarantee truth beyond the observation; therefore, the conclusion is the most probable outcome: Green children will most likely do better on this test than blue children.
2. Deductive Reasoning
    a. Principle
        i. Green children do better on this test than blue children.
        ii. Johnny is a green child.
    b. Conclusion:
        i. Accuracy of the conclusion depends on the truth of the principles it is based on. If the principles are true, the answer must be true: Johnny will do well on this test compared to blue children.

In life we do not have to always actively process our reasoning because much of it is done on an almost subconscious level; i.e. intuition. People that can grasp very complex problems before you have finished telling them what it is are able to anticipate, fill in the gaps, and make leaps in understanding because of their ability to either extract more information from details provided (for inductive reasoning) or abstract principles that can be assumed (deductive reasoning). For others, you can repeat yourself many times or show every detail, but they will still not understand what you are asking. This underlying feature of reasoning is being able to see the "big picture", to conceptualize the problem at hand. A popular idiom for this is "not seeing the forest for the trees." Individuals who do not have a language disability, but do not seem to grasp more complex (abstract) questions have Cognitive Conceptualization difficulty.

Executive Functioning

Executive functions are a set of cognitive control processes required to organize, manage, and regulate oneself and one's resources in order to achieve a goal. These cognitive processes are critical for engaging in effective goal-directed behavior and work production. For practical purposes, it can be seen as one's ability to effectively complete and manage everyday demands and tasks. Executive functioning (EF) is crucial for both school and day-to-day functioning. EF is "how" of task performance. EF determines, or equals, production and the amount of energy and support required for production. Key components include:

1. *Planning*: Ability to prioritize information and resources.
2. *Initiation*: Ability to begin tasks and mobilize needed resources.
3. *Inhibition*: Ability to control impulses.
4. *Emotional control*: Ability to handle challenging tasks, different emotions, negative feedback, and persisting over time to achieve a goal.
5. *Organization*: Ability to arrange or place things (manage) using a system.
6. Working Memory: Ability to temporarily/actively hold onto information in order to complete a task.
7. *Self-monitoring*: Ability to monitor and evaluate behavior.
8. *Shifting and cognitive flexibility*: Ability to prioritize information and resources, move freely between situations, activities, or aspects of a problem.
9. *Sustained attention*: Ability to maintain attention even when distracted, tired or bored.

EF skills develop beginning at birth and into adulthood. Demands for EF increase throughout age and schooling. During preschool and early elementary school, the adult provides external structure and EF support for the child; i.e. explicit rules, breaking down tasks, time parameters to complete tasks, organization systems, simplified instructions, and structured social exchanges. However, the demands for EF increase and support/external structure decreases as the student gets older. For an individual with higher cognitive skills, or one that has average or higher skills in the other domains, EF deficits may not become apparent until late elementary school or more advanced grades when the demands for them increase.

One purpose of examining EF is to determine the "goodness" of fit between the student's skills and the demands of the environment. Identifying specific EF deficits guide and individualize intervention. EF is best evaluated using informal measures including observations, review of products, interviews, and rating scales. Observations of everyday tasks include managing chores, emotions, planning, evaluating, and completion of tasks. Production is one of the best ways to directly measure and observe for EF – as an EF deficit is a disorder in production. Observing, dialog going about, and/or interviewing the student on process provides the how or

specifics, of his or her EF skills. Interviews with teacher and parent, who observe the student every day, are extremely helpful. Use caution in relying on standardized tests for assessing EF. If formal or standardized tasks are used, look for metacognitive behaviors such as self-talk and self-evaluative remarks, ask the student how he or she solved a problem, have the student evaluate the difficulty of the task, and/or ask how well the student thinks he or she did.

EF skills are required at all ages, but expectations vary depending on developmental age. In early childhood, the adult and environment provides more external support, and as the child gets older, the responsibility and demand of EF increase. In regards to academics, writing involves the highest demand of EF, because it involves planning, organization, generation of ideas, retrieval, and motor output. Difficulty in EF can become more apparent as writing demands increase.

When looking at issues related to EF, keep in mind that there are other factors that can account for these difficulties; i.e. overall cognitive or developmental level, weakness in other domains (like reasoning), and/or emotional factors (e.g., depression, anxiety, fatigue, situational stress). Try to rule out if these other factors better account for the student's difficulties and/or if the student's difficulties are explained by both EF deficits and other factors. If a student has EF deficits, they should be seen across domains, processes and settings.

Visual-Spatial Skills

Visual-spatial abilities are broad capacities to perceive, process, and utilize visual and spatial information. These abilities include: perceptual accuracy; analysis (identifying components and key features of visual image, processing part-whole relationships); integration of multiple stimuli (analyzing similarities, differences, and categories); sequential processing (arranging in logical progression) or holistic processing (simultaneous-recognizing and analyzing patterns); as well as storage, retrieval, and application of visual information.

Visual perception is fundamental to school survival as applications of visual skills cover both academic learning and non-academic school survival skills. For academic learning, visual processing is needed for discriminating number, letters, symbols, sight words, and word parts such as suffixes and prefixes as well as recognizing and applying them in other contexts. An understanding of geometric forms, charts, diagrams, and reading of maps using a key is expected to assist understanding material in a variety of subjects. Visualization skills also aid memory. Visualization and sequencing of visual stimuli are needed for planning multi-step tasks and projects. Rapid recognition of visual patterns facilitates processing and speeds learning.

At a basic level, visual processing is involved in self-care and independence (e.g., getting dressed, with shoes on the right foot, neck and arms in right parts of shirt). It is crucial for geographic navigation of a campus (e.g., finding the way to and from a classroom, playground, lunch rooms, and other key areas) and navigation within a classroom (e.g., finding materials needed). Visual skills also aid social navigation of the school environment (e.g., recognition of faces, even with different haircuts and clothing, and key facial expressions). Visual skills are also involved in sports and recreational activities (e.g., visual planning and spatial awareness for games, accurate imitation of successful models for learning athletic skills).

Key components for perceptual/visual analysis include:

- *Visual matching*: such as identifying similarities or contrasts among visual features
- *Visual discrimination*: such as identifying differences among types, selecting the right tools for specific activities
- *Applications of rapid visual analysis to games*: such as following the trajectory of a ball to catch it, judging which pitches to swing on, anticipating location to catch balls

- *Visual reasoning*: ability to identify critical (functional or conceptual) features of visual items (i.e. what do objects have in common)
- *Use of visual contextual cues*: such as finding a missing piece of a partially completed puzzle, identifying what is missing from a picture, follow visual instructions, estimations
- *Figure/ground*: such as finding pictures of items within other pictures, locating lost or missing items, figuring out shortcuts, playing hide and seek

Key components for *visual sequential reasoning* include activities such as arranging pictures in sequence to tell a story; identifying or selecting a missing piece or what comes next in a series of drawings or symbols; placing symbols or data in a logical order (linear); handling multiple features and sequences (some matrices).

Key components of *visual gestalt (simultaneous), spatial visualization and conceptualization* include such things as showing understanding of perspective when viewing or drawing pictures; understanding 2D to 3D instructions for origami, paper airplanes, LEGO or other component designs; taking things apart and maybe sometimes gets them back together, fixes or makes good attempts to fix things at home or school (for LEGOs, model building – in addition to following directions); look at conceptualizing and creating to add modifications or produce original design

Visual memory is demonstrated by recognition of what is seen before (face, symbol, card from deck) later or in different context; association between location and visual stimuli (matching cards faced down); ability to recognize peers and adults in Halloween costumes by key facial features, posture, or gait.

Visual planning examples include such things as navigating a maze with crayon or pencil or road or track with toy vehicle; planning a drawing or writing to avoid running out of space on the page; visualizing top or other side of 3D object depicted in 2D; completing 3D puzzles and 3D block designs (from 2D pictures).

Visual-motor skills may involve graphomotor (fine-tuned communication links between eye and fingertips for writing symbol and numbers) skills to copy from book or board or produce written work; fine-motor skills to pick up pencil, sheet of paper, draw pictures or diagrams; gross motor to play sports and use playground equipment, use depth perception to catch ball, visualization of trajectory when throwing.

Spatial representation through maps and diagrams may be demonstrated by the following: draw a basketball court; draw or describe bus route or the way he/she rides or walks to and from school; show home, school, and route to and from on a map; draw a map of campus; draw a diagram or describe what's in a fairly familiar room at school (media center, cafeteria, school office) or elsewhere (grandmother's house); draw a person with age-appropriate detail and proportion – trunk, fingers, toes (not the Goodenough Harris Draw a Person test).

Social Cognition

Social cognition refers to the ability to process and conceptualize social information, determine the relevance of a situation, and flexibly adjust behavior to the flow of the current interactions. Even if an individual struggles to conceptually follow a given situation, they observe their environment and identify patterns to help them decide how to behave. A key element of social cognition refers to behavior –or the ability to use environmental scenarios to showcase skills. A person recognizes that modifying their behavior to different social situations plays into the positive and negative consequences to that behavior. They must be able to apply multiple alternative social strategies that they have learned in their past in order to predict responses.

Socially competent children are able to enter a new social scene, perceive and interpret its ambiance, and follow its tone and drift. They are able to make contributions that maintain the existing flow. Higher social cognition infers having a finely tuned repertoire of social skills. Having these skills is important because it helps one to "fit in" and perhaps even know how to operate and navigate a situation to yield the most advantageous outcomes for that person. An argument can be made that the most cognitively challenging tasks most individuals must cope with are navigating other individuals and their environment.

Social learning theory is based on the principle that people learn by observing models in their environment. People can learn by observing others' behaviors and the outcomes of those behaviors. The environment reinforces or punishes imitation of a model. These consequences provide intrinsic or extrinsic motivation for the student to judge whether it is worth continuing to develop that skill.

Cognitive factors that are associated with social learning include:

- *Vicarious Learning*: Learning through observation
- *Imitation of Models*: This can be structured modeling of a behavior that a student is explicitly taught to learn. It can also be implicit modeling that an observer naturally learns from live models or symbolic models that are made available through media such as television, text, etc.
- *Sustaining Attention*: Attention is required for an individual to observe a behavior and subsequently link what consequences occur as a result of the behavior.
- *Forming Expectations*: Consequences result from behavior, and patterns of consequences form expectations that guide an individual's future responses.

One way to identify traits included in social cognition is to consider students who are labeled "popular" or those that everyone likes. These individuals know how to navigate their social environments to gain social status and fulfill their wants and needs, with peers and adult interactions. Social competencies that are associated with popularity are:

Relevance:	The ability to "read" a social situation and adapt behavior accordingly.
Responsiveness:	Capacity to receive and reinforce the social initiative of others.
Timing and Staging:	Capacity to pace relationships; knowing what and when to do or say.
Indirect Approaches:	Awareness that relationships and interactions are often initiated and sustained by indirect means.
Feedback cues:	Sensitivity to negative and positive social feedback while relating.
Resolution of Conflict:	Skills for setting disagreement without verbal or physical aggression.
Verbal Pragmatics:	Understanding and effective use of language in social contexts
Social Memory:	Recall and use of prior interactional experiences.
Social Prediction:	Ability to foresee the social consequences of one's actions/words.
Awareness of Image:	Tendency to present oneself to peers in a socially acceptable way.
Affective Matching:	Ability to discern and reinforce the current feelings of a peer.
Recuperative Strategies:	Ability to compensate for social error.
Social Metacognition:	The knowledge of one's own social skill patterns and perception of others.

Social development has as a primary element the formation of friendships. As friendships develop, there is increased understanding about others' values, backgrounds, and interests. For school-aged children, some key aspects are:

- Emergence of play from a standpoint of convenience to mutual respect, affection, and sharing of feelings
- Understanding of how personal actions can affect a friend's state of mind and feelings
- Perspective taking
- Ability to distinguish between acquaintances, friendships, and close friendships
- Growing independence and transition from adult participation in friendships
- Increase in selfless actions for another person

Developmental deficits that can impact one's social ability include:

- *Attention and Intention*: impulsive and poorly planned social acts; insensitivity to feedback cues; egocentricity and trouble sharing; lack of attention to social detail; aggression; spatial and temporal-sequential (problems reading nonverbal feedback); sequential (difficulty with social prediction).
- *Memory*: problems with learning from social experience; trouble learning specific information such as names and appointments.
- *Language*: lower verbal pragmatic strategies; verbal interactions.
- *Higher-Order Cognition*: directly impacts sophistication of social cognition.

Language

"Language" can be defined as the verbal and nonverbal ways in which people convey information, express their thoughts, needs and feelings, and interpret other people's communication. It is important to gather information, both formally and informally, about a child's capabilities to use and process language to help identify if a disability exists. Language is a domain that interacts extensively with all other domains, so language skills must be explored and the interactions addressed. Thus, collaboration is a critical component when conducting an alternate means assessment. When speech and/or language are a major difficulty, a speech and language pathologist (SLP) is needed as a member of the multidisciplinary assessment and IEP teams. The key components that the team needs to consider are:

- Verbal Comprehension: The understanding of synonyms, antonyms, and verbal analogies; understanding of directions; meaningful memorization such as recalling of stories or sentences.
- Verbal Information: General information, academic knowledge, receptive and/or expressive picture vocabulary.
- Retrieval Fluency: Includes the rapid naming of pictures; association of items in a category or group; matching of associated images.
- Auditory Processing: The ability to recognize and interpret visual stimuli involving auditory stimuli; perception (discrimination, closure), memory sequencing, integration, and blending.

- Phonemic Awareness: The blending of sounds; word gestalt (filling in missing sounds, when words are incomplete); sound discrimination (such as vocal patterns and intonations and sound patterns in music).
- Auditory Memory Span: Can include memory for auditory information on a non-meaningful nature (e.g., a string of digits is used to assess auditory working member).

- Other Processing Areas that deal significantly with language include:
  - Cognitive Association: The ability to see similarities, correspondence among stimuli; the ability to memorize and learn by rote.
  - Cognitive Expression: The ability to communicate ideas through language such as writing, gesturing and speaking.

Interpreting Results

After the completion of the collaborative assessment involving all professionals and family, the gathered information can be summarized in the Domain Templates (see Worksheet 8). These templates provide the means to have a one page view of the child's functioning in each domain based on the various data collection procedures employed (e.g., record review, observations, interviews, informal assessment and formal assessment). The domain templates provide a quick review of the following:

- Reasoning: problem solving, abstract thought, inferential thinking, and deduction
- Executive Functioning: selective attention, organization, planning, flexibility, multiple perspectives, self-monitoring, and shifting cognitive sets
- Visual-Spatial Thinking: pattern completion, spatial analysis, part-to-whole reasoning, attention to detail, discrimination, visual-motor integration, and visual memory (short and long term)
- Social Cognition: cultural competency, adapt behavior, evaluating social scenarios, understanding social rules, social prediction, and perspective-taking
- Language: verbal comprehension, verbal information, retrieval fluency, phonemic awareness, and auditory memory span

The child's patterns of strengths and weaknesses, as well as additional comments, can then be summarized in the MATRIX Model for Scatter Plotting and Data Analysis (Worksheet 9). Think of this as a "scatter plot" display of information gathered through the review of existing data, observations, interviews, informal and formal assessment procedures. This data analysis "profile" can help the assessors make recommendations about the identification of a disability, eligibility for special education, and instructional strategies. The MATRIX profile is a visual representation of a student's abilities in the five domain areas that will look different for each student depending on what factors may be affecting that particular student's ability to learn. The profile generated through this "alternate means" assessment process can show when conflicting data and/or incomplete areas need further investigation.

Once you understand the links between the basic psychological processing areas and the MATRIX domains as well as the strength of the relationship between processing areas and academic achievement areas you are ready to move on to your analyzing the case before you. To see this in practice, following are descriptions of how the MATRIX model for "alternate means" assessment data analysis can be used when a team is considering if a student has a

disability and may meet the eligibility categories of Specific Learning Disability (SLD – see Appendix 3a) or Intellectual Disability (ID – see Appendix 3b).

Specific Learning Disability and the MATRIX

The California Association of School Psychologists (CASP) wrote a *Position Paper on Specific Learning Disabilities and Patterns of Strengths and Weaknesses* (2002). In this document, they support the elimination of the ability-achievement discrepancy approach for identifying students with a specific learning disability and support a model that includes a comprehensive evaluation that describes a student's patterns of strengths and weaknesses (PSW). CASP recognizes and endorses the following statements:

- Children learn in many different ways
- Some learning styles and aptitudes require modifications in typical classroom instructional approaches
- Not all children who learn differently from their peers are learning disabled
- Specific learning disabilities are intrinsic to the individual and persist over time
- Not all children with specific learning disabilities require special education
- Specific learning disabilities are endogenous in nature and are characterized by neurologically based deficits in cognitive processes
- These deficits are specific; that is, they impact particular cognitive processes that interfere with the acquisition of specific skills
- Specific learning disabilities are heterogeneous – there are various types of learning disabilities and there is no single defining academic or cognitive deficit or characteristic common to all types of specific learning disabilities
- Specific learning disabilities may coexist with other disabling conditions (e.g., sensory deficits, language impairment, behavior problems), but are not primarily due to these conditions
- The manifestation of a specific learning disability is contingent to some extent upon the type of instruction, supports, and accommodations provided, and the demands of the learning situation

Use multiple measures for the "alternate means" assessment on a student with or suspected of having a specific learning disability. Since you are not identifying a "significant discrepancy" between ability and achievement, look for a pattern of strengths and weaknesses (PSW) in the scatter plot data analysis that includes (a) low achievement in at least one academic area, (b) weakness in a cognitive process related to this academic area, (c) evidence of a typical pattern of functioning in other related areas, and (d) elimination of exclusionary factors as the primary cause of the underachievement (CASP, March 2014). The exclusionary factors require consideration of the following: (i) lack of appropriate instruction in reading, including the essential components of reading instruction; (ii) lack of appropriate instruction in math; (iii) limited English proficiency; and that the findings are not primarily the result of (iv) a visual, hearing, or motor disability; (v) mental retardation; (vi) emotional disturbance; (vii) cultural factors; or (viii) environmental or economic disadvantage.

If a SLD is suspected, the MATRIX profile can be used to (1) make a general statement about the student's intellectual functioning; (2) identify processing strengths and weaknesses; and, (3) identify how processing strengths and weaknesses relate to academic achievement. The following paragraphs detail the way in which the MATRIX can be applied to the eligibility criteria specified in California Ed Code §56337 for the purpose of §3030(b)(10).

A pupil has a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an impaired

ability to listen, think, read, write, spell, or do mathematical calculations, and has a severe discrepancy between intellectual ability and achievement in one or more of the academic areas specified in code.

(1) Basic psychological processed include attention, visual processing, auditory processing, sensory-motor skills, cognitive abilities including association, conceptualization and expression. They also include the MATRIX domains of Reasoning, Language, Social Cognition, Executive Processes and Visual-Spatial.

(2) Intellectual ability includes both acquired learning and learning potential and shall be determined by systematic assessment of intellectual functioning.

(3) The level of achievement includes the pupil's level of competence in materials and subject matter explicitly taught in school and shall be measured by standardized achievement tests and demonstrated mastery/performance on curriculum and (state) standards.

(4) The decision as to whether or not a learning disability exists shall be made by the individualized education program team including assessment personnel in accordance with Section 56341(d), which takes into account all relevant information.

No single score or product of scores or test results shall be used as the sole criterion for determining eligibility for special education. In determining a learning disability, the IEP team shall use the following procedures:

A. A severe point discrepancy cannot be done with African-Americans due to the ban on IQ Tests.

B. The IEP team shall use alternative means as specified on the assessment plan. The assessment plan will involve multiple methods and measures for every domain and academic skill area.

C. The IEP team may find an SLD is manifested, provided that the team documents in a written report that a severe discrepancy in academic skills exists as a result of a disorder in one or more basic psychological processes. The report shall include a statement of the area, the degree, and the basis and method used in determining a learning disability. The report shall contain information considered by the team.

D. The discrepancy between a student's estimated overall ability and demonstrated skills in academic areas shall not be primarily the result of limited school experience or poor school attendance.

Intellectual Disability and the MATRIX

"Intellectual disability" (ID) means significantly sub-average general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period that adversely affects a child's educational performance (Title 5 §3030(b)(6)) Typically the extent of learning weaknesses prevents a student from accessing the standards and substantially impacts his or her ability to have needs met without significant modifications.

If a student is suspected as having an ID, the MATRIX can be used to make a general statement about intellectual functioning in conjunction with measures of adaptive functioning. Much of the information provided by measures of adaptive functioning (ex. ABAS-II) can be recorded into the MATRIX Model for Scatter Plotting and Data Analysis (Appendix 3b) under specific domain areas. Qualitative data on adaptive functioning gained from informal assessments can be plotted as well.

For a student with ID, we would expect the MATRIX to show a pattern of major weaknesses across all or most domains. One may find weaknesses in general mental capabilities, including: reasoning, planning (EF), solving problems, thinking abstractly, applying and generalizing learned information, comprehending complex ideas, learning rate, and learning from experience. One may also find relative strengths in imitation or rote memory. Appendix 3b is a sample of MATRIX data analysis to determine if a student has an intellectual disability.

Report Writing

These alternate means assessment guidelines are based on the core assumptions that the most important purposes of an evaluation, are:

- To provide an accurate and in-depth description of a child's functioning, capabilities, needs, and situational challenges;
- To provide diagnostic conclusions that focus intervention efforts and determine the range of available options (e.g., special education eligibility); and, most important,
- To provide insights and recommendations that improves the functioning and well-being of a child (Lichtenstein, 2014).

Moving from recording data in the templates provided, plotting the data into the MATRIX model and then analyzing the findings makes it much easier to create a written report. It is critical to provide an unbiased report of test results and to format the report in a manner easily understood by others. These aspects are of paramount importance to "consumers" of the report – parents, teachers, other service providers, and school administrators. The major sources of assessment data – records, interviews, observations, and tests– are all significant contributors to findings and recommendations, and should have comparable standing in the structure of the test report (Lichtenstein, 2014).

Unbiased Reporting Of Test Results

Alternative assessment findings must be reported through unbiased report writing to assist with the development of appropriate goals and benchmarks. Key points to remember when reporting assessment results for students tested using alternate means include the following:

- Include information from the case history on the student's overall developmental and health history. This information is gathered via review of the student's records; observation in various settings with peers, alone, etc.; and interview of parents, teachers, student, and others who are familiar with the student.
- Information from qualitative information sources that might affect test scores (e.g. performance factors), should be integrated throughout the report.
- Multiple data sources should be used and documented in the report. These include adaptive behavior, academic achievement, and other evaluative instruments designed to point out specific information relative to a student's abilities and inabilities in specific areas.
- Always include a comprehensive overview of the student's strengths and weaknesses.
- Report any test modifications made during the assessment process. These might include, but are not all inclusive of, the following modifications:
    - Reword test instructions
    - Increase the number of practice items
    - Continue to test beyond the ceiling
    - Record student's entire response

    - Question and probe the student when in doubt of skill level
    - Identify alternative testing methods for gathering data and justify skill levels
- Special attention should be paid to the assessor regarding how his or her interpretations and report writing might influence if the student is identified with disabilities and placed in special education.

Formulating the Report

When formulating the psycho-educational report it is very important to make the logic of the report transparent. Use vocabulary that individuals outside of the profession would understand. "The most important part of a psycho-educational report is how the assessment is synthesized to answer specific questions related to the student" (Diagnostic Center, 2012). Synthesizing the gathered information into a report requires a logical outline including:

1. Rationale for Assessment:
    - A concise and focused referral section would include the background of the referral and the description of concerns, behaviors, or symptoms leading to the referral.
2. One or More Hypotheses:
    - Explicit assessment questions are derived from concerns and needs.
    - Reasons for referral can usually be categorized into three question types:
        - Questions about the presence of a disability
        - Questions about present levels of functioning in relevant domains
        - Questions about changes in the educational program
    - The assessment process should focus on what information is needed to answer the referral questions.
    - Be inclusive about the sources of assessment data while not being overly technical about describing them; Do not confuse assessments by other individuals with the evaluator's own (Lichtenstein, 2014).
3. Background Information:
    - Report relevant background information. This includes information gathered from the record review.
    - Information garnered from interviews may fit here.
    - Include summary of secondary sources (e.g., reports written by others) herein.
4. Organizing the Results Section:
    - Make reports understandable by avoiding jargon and emphasizing words rather than numbers.
    - Remember R.I.O.T. – Review, Interview, Observe, and Test
        - The job of an assessment team is to put all the pieces of the puzzle together. Ask yourself if data from different sources overlap and use this information to form conclusions. If there is a discrepancy in the data sources, ask yourself what factors influence such discrepancy.
    - Consider reorganizing how results are presented by focusing on answering the referral questions. This structure promotes synthesizing gathered data by focusing on a summary of the interpretation and analysis of results. Best practices indicate:

- Results are organized around assessment questions or significant findings.
- Summaries of significant findings are provided under assessment questions.
- Additional interpretations and data are written in the appendix section.
- Make sure that the results and interpretation section address all areas of potential need related to all areas of suspected disability.

5. Summary:
   - The Summary of the report is all important and focuses on the child.
   - It is designed to be a brief summary of key findings that have been discussed at greater length earlier in the report.
   - This is not the place to introduce new information or interpretations or to refer to tests by name or results by number.
   - "An effective summary consists of simple, clear statements that serve the core purposes of the assessment: describing the child, identifying strengths and weaknesses, addressing referral questions and significant issues, and informing diagnosis [identification] and eligibility decisions" (Lichtenstein, 2014).
6. Recommendations and Next Steps:
   - Be specific.
   - Document whether additional data is needed and how this will be gathered.
   - List accommodations and modifications to the student's program that could be considered by the IEP team.
   - List interventions to address educationally relevant areas of need that could be considered by the IEP team.
   - Recommend general and special education services to be considered by the IEP team.
7. Appendix:
   - This section may include assessment data and specific interpretation of data, if applicable.

Remember, the most important part of a psycho-educational report is how the assessment is synthesized to answer specific questions related to the student.

List of Appendices and Worksheets

Appendices

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Appendix 1: Terms

Adaptive Behavior: behavior that can change to meet the demands of another situation.

Collaboration: a process of joint and shared decision making with all parties

Culture: culture is the system of shared beliefs, values, customs, behaviors, and artifacts which the members of that culture understand their world and one another.

Cultural Broker: a cultural broker is an individual who acts as a bridge/mediator between groups of persons of different cultural backgrounds. As a cultural broker, one understands the culture (e.g. values and beliefs) he/she represents and is able to facilitate the bridge of understanding with that of the dominant culture.

Cultural Competency: respecting differences of diverse populations. Cultural competence is a set of behaviors and attitudes that assure the ability to work with diverse populations.

Cultural Proficiency: knowing one's culture (values and beliefs) and how it may influence interactions with diverse populations. A culturally proficient educator has self-awareness of one's own culturally-cased values and assumptions and an appreciation of cultural differences.

Deductive Reasoning: a step-by-step process where one arrives at an answer/conclusion based on generalizations. It is also known as alternative hypothesis testing, analytical or logical thinking.

Emotional Control: ability to handle challenging tasks, different emotions, negative feedback, and persisting over time to achieve a goal.

Executive Functioning: set of cognitive processes required to organize, manage and regulate oneself and one's resources in order to achieve a goal. These cognitive processes are critical for engaging in effective goal-directed behavior and work production; the ability to effectively complete and manage everyday demands and tasks.

Inductive Reasoning: taking isolated or specific pieces of information and identifying a common principal. It is also known as generalization, synthesis, and casual inference.

Inhibition: ability to control impulses.

Initiation: ability to begin tasks and mobilize needed resources.

Intuition: being able to see the "big picture". The ability to grasp complex information with little, or prior to all of, provided explanations.

Organization: ability to arrange or place things (manage) according/to or using a system.

Pattern Completion: the ability to retrieve a complete image based on external cues or images.

Perspective Taking: ability to understand the thoughts, emotions or feelings of another person.

Planning: the ability to prioritize information and resources.

Reasoning: the active process of solving a novel problem or situation.

Reliability: refers to consistency/stability of the test scores. For example, the degree to which the same, people receive the same score when retested on the same or on an equivalent form of, the test.

Self-monitoring: ability to monitor and evaluate behavior.

Shifting and Cognitive Flexibility: ability to prioritize information and resources, move freely between situations, activities, or aspects of a problem.

Appendix 1: Terms

Social Prediction: ability to foresee the social consequences of one's actions and/or words.

Social Rules: agreed upon standards or social norms that influence one's behaviors.

Social Scenario: a story that addresses various situations, concepts and/or social skills.

Spatial Analysis: being able to look at an object and determine what is required for writing, copying and other pencil-paper tasks.

Sustained Attention: ability to temporarily and actively hold onto information in order to complete a task.

Visual Discrimination: the ability to identify and/or recognize differences between individuals or objects.

Appendix 2: COMPARES: Research Links between Processing and Achievement Areas

Processing Area	Processing Sub-Area	Basic Reading Skills (Decoding)	Reading Fluency	Reading Comprehension	Written Expression	Math Calculation	Math Problem Solving	Listening Comprehension	Oral Expression
Auditory	Phonological Processing	4	3	3, 1	2	2	2	3	3
	Auditory Memory	4	3	4	4	4	4	4	4
	Auditory Processing Speed	*	*	*	*	*	*	3	3
	Auditory Processing	2, 3	*	3	0	0	0	3	2
Visual-Spatial	Visual-Spatial Processing	2	2	2, 3	1	2, 3	1	1, 2	0
	Orthographic Processing	4	4	2	2	2	0	0	0
	Visual Memory	2	2	4	3, 4	4	4	0	0
	Visual Processing Speed	4	4	*	*	*	*	0	0
Cognitive Abilities	Memory	4	4	4	4	4	4	3, 4	4
	Rapid Naming Skills	4	4	2	2	3	2	0	*
	Conceptualization and Fluid Reasoning / Problem Solving	0	0	2, 3	2, 3	3	4	0	0
	Expression	3	0	3	3	0	3	3	*
	Language Processing (Crystalized Knowledge)	4	3	3	3	2	3	*	*
	Processing Speed	4	4	3	3, 4	4	4	3	3
	Executive Functions	3	2, 3	4	3	3	3	4	4
Sensory-Motor Skills	Visual Motor, Fine Motor, Grapho-motor, Sensorimotor	1	0	0	3	2	1	0	0
	Sensorimotor Memory	1	0	0	0	0	0	0	0
	Sensorimotor Speed	0	0	0	*	0	0	0	0
	Oral Motor / Oral Motor Speed	2	3	0	0	0	0	0	*
Attention	Attention	1	1, 2	2	2	3	2	2	1

* Please reference the COMPARES for specific information

4 = Strong Convincing Evidence; **3** = Convincing Evidence; **2** = Partially Convincing Evidence; **1** = Unconvincing Evidence; **0** = No Research Found

Appendix 3a: Sample Case Data for Specific Learning Disability

MATRIX Identify strengths/weaknesses under each domain, note emerging skill / important information in Comments					
Domains	**Reasoning**	**Language/Communication**	**Social Cognition**	**Executive Function**	**Visual-Spatial**
Description	• Problem Solving • Abstract Thought • Deduction • Inferential Thinking	• AAC • Abstract Language Reasoning • Articulation, Phonological, Oral Motor • Fluency, Prosody, Voice • Language Literacy • Language Processing • Semantic Abilities • Social Communication, Pragmatics • Syntax & Morphology • Verbal Formulation	• Knowledge acquired, directly attributed to observation of others in context of social interaction / experience • Cultural Competency • Learns Social Rules	• Selective Attention • Organization • Strategizing • Flexibility, Shifting Cognitive Sets • Multiple Perspectives • Self-Monitoring • Working Memory	• Pattern Completion • Spatial Analysis • Part To Whole Reasoning • Visual Memory • Visual Motor Integration
Strengths	- use of non-verbal solving skills (uses manipulative to solve math problems) - average performance on NEPSY Animal Sorting		- references peers to determine what to do - works collaboratively with peers - encourages and compliments others	- accuracy - materials well organized - plans before reproducing design responses - attentive / focused on non-verbal tasks - self-monitors	- penmanship - drawing with details and 3d perspective - accuracy copying info - visual memory - accurately reproduced 90% of details of Rey Complex Figure; accurate reproduction after time delay - Lego construction
Weaknesses	- generalizing / applying skills	- phonological processing: decoding, blending sounds, orally segmenting individual sounds of words - following verbal directions - short term auditory memory - word finding - verbal formulation		- working memory (auditory and multi-digit calculation)	- required repetition to learn basic math skills
Comments		• Identified with language impairment at age 5 • History of difficulty learning letter sounds • Slow progress in reading		• Previous assessments indicate average skills	

Appendix 3b: Sample Case Data for Intellectual Disability

MATRIX Identify strengths/weaknesses under each domain: Note emerging skill/important information in comments					
Domains	**Reasoning**	**Language/Communication**	**Social Cognition**	**Executive Function**	**Visual-Spatial**
Description	• Problem Solving • Abstract Thought • Deduction • Inferential Thinking	• AAC • Abstract Language / Reasoning • Articulation, Phonological, Oral Motor • Fluency, Prosody, Voice • Language Literacy • Language Processing • Semantic Abilities • Social Communication, Pragmatics • Syntax & Morphology • Verbal Formulation	• Knowledge acquired, directly attributed to observation of others in context of social interaction/ experience • Cultural Competency • Learns Social Rules	• Selective Attention • Organization • Strategizing • Flexibility, Shifting Cognitive Sets • Multiple Perspectives • Self-Monitoring • Working Memory	• Pattern Completion • Spatial Analysis • Part To Whole Reasoning • Visual Memory • Visual Motor Integration
Strengths			- eye contact, gesturing - smiles at others - recognizes other's emotions		
Weaknesses	- applying learned skills - limited problem solving - difficulty following new routines	- following simple directions; 1 step only - unintelligible speech - receptive & expressive language around 2-3 year old - uses 1-2 word phrases	- relies on scaffolding for simple pretend play - simple turn taking with prompts	- relies on individual adult support to stay on task - impulsive in answers; did not look at all choices	- slow learning of letters - delayed fine motor - difficulty forming letters
Comments	• Slow academic progress • Follows simple routines	• All milestones delayed	• Mostly approaches adults and not peers • Beginning to socialize with peers that take a motherly role		

Worksheet 1: Assessment Checklist

Name:	Date of Birth: / / CA:
Grade:	School Site:
Parent(s)/ Guardians:	Phone No: E-mail(s)
Current Teacher:	Phone No: E-mail(s):
Special Education Teacher:	Phone No: E-mail(s):
Related Service Provider:	Phone No: E-mail(s):
Other Agencies:	Phone No: E-mail(s):

Review of Records

☑	Type of Record	Date
☐	Cum Folder	/ /
☐	Attendance	/ /
☐	Behavior	/ /
☐	Confidential File	/ /
☐	Health Records	/ /
☐	Report Cards	/ /
☐	CST, START testing	/ /
☐	Other	/ /

Observations

☑	Location	Date	Time
☐		/ /	
☐		/ /	
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Interviews

☑	Name of Interviewee	Date
☐		/ /
☐		/ /
☐		/ /
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Informal Assessment Methods

☑	Kind of Assessment	Date	Time
☐		/ /	
☐		/ /	
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Standardized Assessment(s)

☑	Name of Assessment	Date	Time
☐		/ /	
☐		/ /	
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Worksheet 2: Quick Guides

Name:	Date: / /	CA:

REASONING Quick Guide			
Problem Solving	*Abstract Thought*	*Inferential Thinking*	*Deduction*

Records and Work Samples	Review Records ☐ Teacher comments about style of learning (e.g., concrete, creative, slow) ☐ Evidence of meeting grade level standards ☐ Pattern of increased difficulty with school work as the demands for abstract thought, critical thinking, and inferential thinking increase ☐ Group standardized test results (comprehension and reasoning) Work Samples ☐ Classroom work ☐ Evidence of inferential thinking in reading comprehension assignments ☐ Demonstration of problem solving techniques in math word problems Look at academic testing ☐ Applying simple math skills to an art project (assembly of certain number of parts)
Observations Class Free Time Playground Breaks	Look for: ☐ Understanding of cause and effect Problem-solving strategies (e.g., trial and error, foresight, process of elimination, response to obstacles) ☐ Problem-solving strategies (e.g., trial and error, foresight, process of elimination, response to obstacles) ☐ Use of response to jokes, puns, humor ☐ Critical thinking skills (logical reasoning, making inferences, analyzing information, asking insightful questions, pointing out inconsistencies, drawing conclusion based on evidence, maintaining objectivity, judgment) ☐ Skepticism vs. gullibility; considering the source of information ☐ Inventiveness (e.g., making up games, rules, songs, stories, raps, etc.) ☐ Challenging the status quo, suggesting alternative ways to complete tasks ☐ Negotiating with peers, mediating conflicts for others ☐ Persuasiveness and manipulative behavior; ability to debate ☐ Ability to self-correct, seek assistance ☐ Evidence of “forest” vs. “trees” thinking ☐ Difficulty with forced-choice, yes/no questions, seeing shades of gray (e.g., “it depends…”) ☐ Creativity, e.g. inventing games, songs, stories, poems, raps; using objects representationally in play ☐ Demonstrating understanding of a concept by inventing an as yet nonexistent version (e.g., creating a habitat for an imaginary creature) ☐ Drawing comparisons and using metaphor when giving explanations ☐ Problem solving strategies in different context ☐ Evidence of linking ideas and utilizing skills across environments (e.g., using math calculations in science class) ☐ Ability to make connections between concepts and real life examples ☐ Applying the rule system from one environment to another environments; applying school rules across different classrooms ☐ Spontaneous connection to prior learning or experience
Interviews School Family Student- Other, if appropriate	Ask questions, e.g.: ☐ See the “big picture”? ☐ What household responsibilities is the student entrusted with? How capable and reliable is she/he in carrying these out independently? ☐ Does the student show clever management of household responsibilities (e.g., prioritizing, successfully avoiding, delegating to siblings)? ☐ Does the student demonstrate negotiating skills (e.g., run between parents for answers)? ☐ Relate new information to thing she/he already knows? ☐ Pick up new concepts? How quickly? ☐ Student interview: Does the student demonstrate self-knowledge, insight, ability to set goals and make realistic plans to achieve goals? ☐ Use math calculations skills to determine if she/he has enough money to purchase desired items at store or mall? ☐ Relate new information and skills to those she/he already has?

Worksheet 2: Quick Guides

Informal Assessment	Activities: ☐ Conduct ecological assessment (e.g., see student in multiple environments-home, school, and community) ☐ Mapping activity – look for evidence of self-knowledge ☐ Classroom discussions about hypothetical situations, looking for insight, long-range planning and response to mediated questioning ☐ Affinity for brain teasers and logical reasoning puzzles ☐ Conservation tasks ☐ Creating Venn diagrams ☐ Making a grocery list from newspaper ad using a predetermined budget ☐ Creating advertisements for favorite or invented products ☐ Learning a memory strategy and then, later in the assessment, being given unannounced opportunities to apply it ☐ Use games such as the following (clustered by age ranges): ☐ Ages 1-5: Connect 4, Flipover, I Spy, Mr. Potato Head, sequence cards, blocks, pop beads, nesting blocks, puzzles, shape sorter ☐ Ages 5-8+: A-Ha! 3D Puzzle, Blockus, Blue's Clues Colorfelt, Guess Who, Jenga, Mathdice, Pictionary, Traffic Jam, Twenty Questions, Uno ☐ Ages 8+: Backgammon, Checkers, Chess, Clue, Mastermind, Racko, Rock, Suduko, Tilt ☐ Ages 12+: Balderdash, card games involving sorting into categories/memory tasks/calculations
Formal Assessment	□ D-KEFS Proverb □ D-KEFS Twenty Question □ D-KEFS Tower □ D-KEFS Word Context □ NEPSY-II Animal Sorting □ NEPSY-II Theory of Mind □ TAPS-3 Auditory Cohesion □ Robert-2 Apperception Test for Children-African American cards

EXECUTIVE FUNCTIONING Quick Guide			
Selective Attention	*Organization*	*Planning*	*Flexibility*
Multiple Perspectives	*Self-monitoring*	*Shifting Cognitive Sets*	
Records and Work Samples	Review for evidence of: ☐ Pattern of haphazard work, inconsistent quality ☐ Pattern of missing/late assignments and/or poor attendance, tardiness ☐ Completion of complex, multi-step assignments and/or sequential course requirements ☐ Ability to demonstrate knowledge equally well in a variety of formats ☐ Ability to follow task directions ☐ Producing stories or essays with multiple perspectives, motives, or points of view ☐ Appropriate behavior in new information/skills ☐ Applying simple math skills to an art project (assembly of certain number of parts		
Observations Class Free time Playground Yard	Look for: ☐ Ability to sustain mental effort for multistep tasks ☐ Attention to relevant information ☐ Adequate working memory ☐ Organization and keeping track of materials and personal belongings ☐ Evidence of planning, such as looking over assignment, getting directions, use of strategies for work or games ☐ Tolerance of interruptions, adaptation to changes ☐ Consideration of other points of view ☐ Getting started and self-pacing ☐ Ability to shift attention or strategies when needed ☐ Difficulty with forced-choice, yes/no questions, seeing shades of gray (e.g., "it depends"…vs. concrete thinker).		

Worksheet 2: Quick Guides

Observations Class Free time Playground Yard (continued)	☐ Spontaneous connections to prior learning or experience ☐ Spontaneous sorting or grouping of toys or other materials ☐ Memory of procedures and class rules ☐ Memory for location of objects (personal, class, school) ☐ Following names of teachers and classmates ☐ How long it takes to understand rules of new games ☐ Explaining rules of game to another child ☐ Keeping track of materials ☐ Applying the rule system from one environment to another environment; applying school rules across different classrooms
Interviews Family School Staff Child	Ask questions, e.g., does the student: ☐ Follow directions and completes tasks without frequent reminders? ☐ Keeps track of items used (personal, household, play)? ☐ Adapts to changes in plans? ☐ Negotiates family and peer activities (outings, tv shows)? ☐ Tolerates frustration, negotiates, compromises? ☐ Understand task directions? ☐ Use safety rules and signs in the community? ☐ Identify symbols in the community and use them as landmarks? ☐ Teach others the rules for a game?
Informal Assessment	Activities: ☐ Use games such as the following (clustered by age ranges): ☐ Ages 1-5: Connect 4, Flipover, Mr. Potato Head ☐ Ages 3-8: Action Verbs/JINGO, Blockus, Blurt, Bug Trails, Diner Dash, Dominos, Guess Who, Jenga, Mathdice, Uno ☐ Ages 8-12+: A-ha 3D Puzzle, Backgammon, Bananagrams, Checkers, Chess, Cir-Kis, Clue, Family Feud, Mastermind, Who-What-Where ☐ Drawing – observe planning, use of space on page ☐ Puzzles – look for strategies (sorting, starting with edges. . .) ☐ Observe ability to adapt to changes in rules ☐ Using pictures, puppets, or role-play, discuss different characters' perspectives, feelings ☐ Observe ability to control impulses, take turns ☐ Sorting attribute blocks ☐ Teaching the rules and strategy for a game to the examiner ☐ Making a grocery list using a predetermined budget ☐ Writing a persuasive letter or letter of complaint ☐ Learning a memory strategy and then, later in the assessment, being given unannounced opportunities to apply it.
Formal Assessment	☐ Bender (use of space on page) ☐ NEPSY – II Animal Sorting ☐ NEPSY – II Auditory Response set ☐ NEPSY – II Clocks ☐ NEPSY – Design Fluency ☐ NEPSY – Interference

VISUAL-SPATIAL THINKING Quick Guide			
Pattern Completion	*Spatial Analysis*	*Part-to-Whole Reasoning*	
Attention to Detail	*Discrimination*	*Visual Motor Integration*	*Visual Memory (short & long term)*
Records and Work Samples	Records – review for evidence of: ☐ Poor grades for handwriting, art, math (especially geometry) ☐ Teacher comments regarding messy work		

Worksheet 2: Quick Guides

Records and Work Samples (continued)	Work samples – look for: ☐ Sense of proportion, awareness of details, 3-D representation, or perspective in drawings ☐ Diagrams, maps, charts done by student ☐ Student's proficiency using charts, maps, diagrams, geometric forms ☐ Visual organization, layout of assignments (do items overlap, does writing run off edge of page?) ☐ Written language – topic sentences, evidence of understanding main idea, ability to summarize ☐ Applying simple math skills to an art project (assembly of certain number of parts)
Observations Class Free time Playground Breaks	Look for: ☐ Understanding of charts, diagrams, maps ☐ Ability to visually estimate number or size ☐ Social behavior that reflects awareness of peers' facial expressions, posture, gestures ☐ Awareness of visual patterns, ability to estimate distances during sports or games at recess ☐ Ability to navigate in the classroom and on the school campus ☐ Memory for location of objects (personal, class, school) ☐ Keeping track of materials
Interviews School Family School Staff –Child if appropriate	Ask questions, e.g., how skillfully does the student: ☐ Build with blocks or Legos? ☐ Put together jigsaw puzzles? Assemble things: ☐ Reading diagrams? Follow schematic directions? ☐ Repair household items? ☐ Navigate in the community? ☐ Give travel directions to others? ☐ During student interview, does student mention or describe above activities or projects, or ask questions that show evidence of noting visual details? ☐ Identify symbols in the community and use them as landmarks?
Informal Assessment	Activities: ☐ Use games such as the following (clustered by age ranges): ☐ Ages 1-5: Blocks, pop beads, Connect 4, Flipover, I Spy, Mr. Potato Head ☐ Ages 5-8+: Blockus, Bug Trails, Candy Land, Diner Dash, Dominos, Jenga, Uno ☐ Ages 8-12+: A-ha 3D Puzzle, Backgammon, Checkers, Chess, Cir-kis, Mastermind, Password ☐ Ages 12+: card games involving sorting into categories/memory tasks/calculations ☐ Building with blocks, Legos, other materials ☐ Puzzles or tangrams ☐ Origami ☐ Mazes ☐ Hidden figure pictures ☐ Comparing and contrasting pictures to find the difference (e.g., Hocus Focus) ☐ Giving directions to the examiner to the nearest bathroom, the school office, a nearby point of interest in the community, the student's home ☐ Creating Venn diagrams ☐ Writing a persuasive letter or letter of complaint
Formal Assessment	☐ NEPSY – II Arrows ☐ NEPSY – II Block Construction ☐ NEPSY – II Geometric Puzzles ☐ NEPSY – II Picture Puzzles ☐ NEPSY – II Route Finding ☐ PEERAMID 2 Lock and Key ☐ PEEX 2 Visual Whole: Part Analysis ☐ WRAML2 –Finger Windows

Worksheet 2: Quick Guides

SOCIAL COGNITION Quick Guide		
Cultural Competency	*Adapt Behavior*	*Evaluating Social Scenarios*
Understanding Social Rules	*Social Prediction*	*Perspective-Taking*

Records and Work Samples	Records – review for evidence of: ☐ Review teacher comments in school cumulative folder ☐ Review teacher comments on report cards ☐ Review report card grades for citizenship Work Samples – look for: ☐ Writing compositions that problem-solve social topics ☐ Child's role in group projects
Observations Class Free time Playground Breaks	Look for: ☐ Imitation – using successful peers/adults as models ☐ Adapt behavior to setting – formal/informal, purpose social composition, activity ☐ Capacity to pace relationships; knowing what and when to do or say ☐ Resolve conflicts on playground with peers ☐ Evidence of correctly "reading" others' affect from gestures, body posture, facial expressions ☐ Recess – ease of initiating/joining a game and following the rules; level of explicit teaching needed ☐ Skills for setting disagreement without verbal or physical aggression ☐ Effectively using language in social contexts ☐ Ability to compensate for social error ☐ Shared enjoyment and interest in others' shared enjoyment ☐ Evaluating a social scenario to plan own entrance ☐ Perspective taking ☐ Ability to predict what would happen next
Interviews School Family Student – if appropriate	Ask questions, e.g., does the student: ☐ Recall and use prior interactional experiences? ☐ Foresee social consequences to own actions? ☐ Strategize how to respond or change behavior when predicting consequences of own actions? ☐ Know how to appropriately enter a conversation? ☐ Ask questions that incorporate the bullets from "Observations, Class, Free time, Playground, Breaks (above)
Informal Assessment	Activities: ☐ Interactive games such as any of those listed previously ☐ Playing a game – back and forth flow, reciprocity, fairness ☐ Does student initiate board game with peers? ☐ Does student choose an activity that integrates everyone's preferences? ☐ Novel imaginative games that integrate characters and social scenario ☐ Ability to problem-solve an unpredicted "monkey wrench?/complexity during imaginative plan ☐ Can student adjust competitiveness to win a game based on other players' reactions? ☐ Student's understanding of own social skill patterns and perceptions of others
Formal Assessment	☐ Behavior Assessment System for Children, 2nd Edition ☐ Roberts – 2 Appreciation Test ☐ Thematic Apperception Test ☐ Tell-Me-A-Story ☐ Adaptive Behavior Assessment Scale, 2nd Edition – Social Composite ☐ Vineland Adaptive Behavior Scales, 2nd Edition – Socialization Domain

Worksheet 3: Record Review Template

Name:	Date: / / CA:
Grade:	School Site:
Parent(s)/ Guardians:	Phone No: E-mail(s)
Current Teacher:	Phone No: E-mail(s):
RSP/SDC/Speech:	Phone No: E-mail(s):
Other Agencies:	Phone No: E-mail(s):
Languages spoken In the home:	Is English student's primary language?

Health Records (include vision & hearing screenings):	Current: Previous year(s):
Attendance/Tardiness:	Current: Previous year(s):
Discipline or Behavior Reports:	Current: Previous year(s):
SST(s) Summary (attach a copy of original):	Current: Previous year(s):

Worksheet 3: Record Review Template

Record Review cont.			
Standardized Achievement Score Summary (STAR, CST):	English language current: Previous year(s):	Mathematics Current: Previous year(s):	Science Current: Previous year(s):
Report Card(s):	Current areas of strength: Current areas of concern: Consistency from previous year(s) report card(s):		
School history, programs attended, past schools attended (# of times student has moved), and additional anecdotal information:			
Student Work Samples:	Attach as needed		

Worksheet 4: Observation Form

Name: Date: / / Location: Time:

Activity	Quick Notes / Hypothesis	Domain *

***Domains**: R = Reasoning Lang = Language Soc = Social Cognition EF = Executive Functioning VS = Visual Spatial

Worksheet 5: Interview Data Collection Form

Name: Date: / / Parent: ☐ Teacher: ☐ Student: ☐ Other: ☐_ __

Interview Comments	Quick Notes / Hypothesis	Domain *

***Domains**: R = Reasoning Lang = Language Soc = Social Cognition EF = Executive Functioning VS = Visual Spatial

Worksheet 5a: Interview Questions for Parent

Whenever possible, face-to-face interviews are best. Create rapport while identifying the parents' main concerns and observations or their child. Begin with more open-ended questions, and then taper to more specific questions. Examples of general questions include:

- What is your understanding of why your child is being assessed?
- How long has this problem been of concern for you?
- When were you first concerned about your child?
- What were your previous concerns?
- What things does [he/she] have difficulty learning?
- Has your child received an evaluation or treatment of this current problem or similar problem?
- What do you think will help your child?
- What concerns do you have about [his/her] behavior?
- What disciplinary techniques do you use when [he/she] behaves inappropriately?

Review the information from Medical and Developmental History, review records and ask for clarification. If you notice inconsistencies, clarify them, or ask a more open ended question to elicit/clarify this information.

More specific or tapered questions include:

- Emotional regulation/mood: How does [he/she] express feelings? Does [he/she] show any fears or anxieties? What upsets [him/her]? What makes [him/her] happy?
- Please describe [his/her] activity level, impulsivity, concentration, distractibility, completion of tasks, forgetfulness, impatience, compliance
- How are [his/her] peer relationships? Prompt to responses related to bossiness, perception of others liking him, friendships, sharing/taking turns, how he deals with losing, how he handles conflicts with others, empathy, ability to make friends, who he plays with (younger, older, more dominant), does he play along, role he takes in playing with others
- How are [his/her] independent or adaptive skills
- What are [his/her] chores and responsibilities?
- What are [his/her] strengths, what [he/she] is good at?
- What motivates [him/her]?
- What has been successful (i.e., in a specific class, specific task, accomplishment)?
- What are [his/her] favorite activities? What does [he/she] enjoy doing with free time/
- How does [he/she] like school? What does [he/she] like at school?
- What does [he/she] enjoy doing with friends, siblings, family?
- What helps [him/her] focus?
- What disciplinary techniques are effective or does [he/she] respond to?

Is there any additional information that would be helpful for me to know about [his/her] school history? Is there any additional information that would be helpful for us to know when working with your child?

Worksheet 5b: Interview Questions for Teacher

Begin by asking some general questions to identify and/or validate the main areas of concerns, as well as to identify the student strengths. Begin with general questions, and taper to more specific ones based on interviewee responses and prior information:

- How does the student perform in your class?
- What are your specific concerns?
- What are [his/her] weaknesses?
- What does [he/she] have difficulty learning? Why do you think [he/she] has difficulty learning that?
- Does [he/she] have difficulty completing tasks on time?
- How does [he/she] compare to [his/her] peers?
- How long does it take [him/her] to learn specific skills and concepts (letters, numbers, words, vocabulary words, calculation)?
- Does [he/she] apply the skills learned (i.e., adding to counting change)?
- How long does it take [him/her] to learn routines?
- How much scaffolding does [he/she] require?
- Is [he/she] able to follow directions? Does [he/she] need more repetition than peers?
- How much help does [he/she] need to complete assignments?
- Is [he/she] able to keep up with class? When?
- How are [his/her] self-monitoring skills, i.e., does [he/she] check if a task is completes? How much does [he/she] rely on others to complete tasks?

Ask the teacher for specific work examples, samples and data, including benchmarks, performance on tests, journal entries, and drawings. Have the teacher show you average student samples for comparison.

Include questions to elicit student strengths:

- What are [his/her] strengths? What are [his/her] best subjects?
- What are [his/her] other special skills and characteristics?
- In what situations does [he/she] demonstrate strengths (subject, whole group, mode of presentation, mode of response, etc.)?
- What helps [him/her] remember things?
- What are [his/her] favorite activities?
- When has [he/she] been successful (in specific class, specific task)?
- What motivates [him/her]?
- What does [he/she] do when [he/she] has difficulty?
- Is [he/she] creative? Can you give me examples of him demonstrating creativity?
- When has [he/she] been successful (in specific class, specific task, and accomplishment)?
- What school activities does [he/she] enjoy?
- What helps [him/her] focus?
- What disciplinary techniques are effective or does [he/she] respond to?

Worksheet 5b: Interview Questions for Teacher

If not already identified from the strengths questions, ask questions to help identify interventions that will help the student:

- What happens when [he/she] can't figure out a problem?
- What helps [him/her]?
- What do you think will help your student?
- What are your recommendations for [him/her]?
- What accommodations or modifications do you use to help [him/her]? How helpful are these?
- What other accommodations or modifications do you think will help [him/her] be successful?

Include behavior questions impacting or related to cognitive skills, including attention, executive functions, self-awareness, compliance, peer relations, and emotional regulation:

- Does [he/she] complete tasks on time? Does [he/she] complete assignments on time? Does [he/she] complete tests on time?
- Does [he/she] remember to turn things in?
- How does [he/she] communicate and express him/herself?
- How does [he/she] express his/her feelings?
- How are [his/her] organizational skills? Does [he/she] remember to turn in and find [his/her] assignments? Does [he/she] lose important possessions, books, or papers?
- How does [he/she] approach new problems? Does [he/she] solve problems haphazardly or come up with a systematic way to solve them?
- Describe [his/her] peer relations, i.e., awareness of other's feelings, gullibility, bossiness, sharing/taking turns, how [he/she] deals with conflicts with others, ability to make friends, who [he/she] plays with (more/less dominant, popular, mature student), role [he/she] takes in playing with others
- Does [he/she] complete work independently and prioritize tasks?
- Is [he/she] able to regulate their emotions, including how [he/she] handles negative feedback and conflicts?

At the end of the interview, wrap up by asking the teacher:

Is there any additional information that would be helpful for me to know about [his/her] learning and progress?

Follow up suggestions:

If either record review or interviews suggest concerns in behaviors, emotional regulation, social skills, have the teacher complete a broad band rating scale such as the BASC. Consider administering adaptive rating scales when there are concerns about overall cognitive functioning, language, independence skills, and behavioral disorders such as ADHD and autism. Review and score the ratings. If there are inconsistencies or missing information, or additional clarification needed, check in with the teacher for clarification.

Worksheet 5c: Interview Questions for Student

After establishing rapport, ask questions that elicit student strengths such as:

- What are your favorite things to do for fun?
- What do you like about that activity?
- How did you decide on that answer? (when playing a game)
- What do you think about school?
- What's your favorite subject in class?
- What do you think your best subject is?
- What do you like about that subject?
- What is your favorite part of the day in class?
- What do you like to during recess / passing periods?
- Are there any sports you like to play? Tell me about that.
- What is your favorite game? Can you describe how to play? (look for planning, strategy, sequencing, understanding of purpose)

Ask questions to help identify interventions that will help the student such as:

- If you had three wishes, what would they be to make schoolwork easier?
- If you had three wishes, what would they be to make anything at school better?
- If you had to rank your preference of teaching, what order would you put these in? (seeing it on the board, hearing your teacher's lesson, doing hands-on projects, writing things down?
- Does it help when your teacher connects a current lesson to a previous lesson?
- Does it help when your teacher connects a current lesson to one of your favorite games/activities/experiences? How?
- You know how your teacher teaches you differently for math, ELA, etc.? Sometimes they do a big lesson to the class and then small group work. Sometimes they even let you work with peers or let you work on your own with really specific steps. What is your favorite way to learn?
- What do you do when you can't figure out a problem?

At the end of the interview, ask these open ended questions:

- Is there any additional information you think is important for me to know about you?
- Is there anything I could tell other people about you that you would want them to know?

Follow up suggestions:

If either record review or interviews suggest concerns in behaviors, emotional regulation, social skills, have the teacher complete a broad band rating scale such as the BASC. Consider administering adaptive rating scales when there are concerns about overall cognitive functioning, language, independence skills, and behavioral disorders such as ADHD and autism. Review and score the ratings. If there are inconsistencies or missing information, or additional clarification needed, check in with the teacher for clarification.

Worksheet 5d: Interview Questions for Others

Begin with more general, open-ended questions. You can refer to parent and teacher open-ended questions, in addition to:

- What are/have been your concerns?
- What are the [student's] strengths (learning, socially, sports, artistic, construction) and weaknesses?
- What are the [student's] skills, i.e., chores, cooking, assembling, and shopping (calculation)?
- What games does [student] play and what skills do these involve?
- What other activities does [student] preform and what skills do these involve?
- How does [student] learn best?
- How do [student's] skills compare to that of [his/her] peers (general and/or special education)?
- Why do you think [student] has difficulties with learning?
- How does [student] learn best?
- What are [student's] strengths and weaknesses?
- How long does it take [student] to learn a new task? A new concept?
- What motivates [student]?
- What are [student's] favorite activities so that you can have [him/her] describe, explain, or show them?

Worksheet 6: Informal Assessment Notes Page

MATRIX CATEGORIES

Name:	Date: / / CA:
METHODS USED	**FINDINGS**

Worksheet 7: Formal Assessment Notes Page

MATRIX CATEGORIES

Name:	Date: / / CA:
METHODS USED	**FINDINGS**

Worksheet 8: Domain Templates

Name:	Date: / /	CA:

REASONING			
Problem Solving	*Abstract Thought*	*Inferential Thinking*	*Deduction*
Observations Class Free time Playground Yard			
Interviews Family School Staff Child			
Records and Work Samples			
Informal Assessment			
Formal Assessment			

Worksheet 8: Domain Templates

Name:	Date: / /	CA:

EXECUTIVE FUNCTIONING			
Selective Attention	*Organization*	*Planning*	*Flexibility*
Multiple Perspectives	*Self-monitoring*	*Shifting Cognitive Sets*	
Observations Class Free time Playground Yard			
Interviews Family School Staff Child			
Records and Work Samples			
Informal Assessment			
Formal Assessment			

Worksheet 8: Domain Templates

Name:	Date: / / CA:

VISUAL-SPATIAL THINKING			
Pattern Completion		*Spatial Analysis*	*Part-to-Whole Reasoning*
Attention to Detail	*Discrimination*	*Visual Motor Integration*	*Visual Memory (short & long term)*
Observations Class Free time			
Interviews Family School Staff Child			
Records and Work Samples			
Informal Assessment			
Formal Assessment			

Worksheet 8: Domain Templates

Name:	Date: / /	CA:

SOCIAL COGNITION		
Cultural Competency	*Adapt Behavior*	*Evaluating Social Scenarios*
Understanding Social Rules	*Social Prediction*	*Perspective-Taking*

Observations Class Free time	
Interviews Family School Staff Child	
Records and Work Samples	
Informal Assessment	
Formal Assessment	

Worksheet 9: MATRIX Model for Scatter Plotting and Data Analysis

Name:	Date: / / CA:

MATRIX

Identify strengths/weaknesses under each domain, note emerging skill / important information in Comments

Domains	Reasoning	Language/Communication	Social Cognition	Executive Function	Visual-Spatial
Description	• Problem Solving • Abstract Thought • Deduction • Inferential Thinking	• AAC • Abstract Language Reasoning • Articulation, Phonological, Oral Motor • Fluency, Prosody, Voice • Language Literacy • Language Processing • Semantic Abilities • Social Communication, Pragmatics • Syntax & Morphology • Verbal Formulation	• Knowledge acquired, directly attributed to observation of others in context of social interaction / experience • Cultural Competency • Learns Social Rules	• Selective Attention • Organization • Strategizing • Flexibility, Shifting Cognitive Sets • Multiple Perspectives • Self-Monitoring • Working Memory	• Pattern Completion • Spatial Analysis • Part To Whole Reasoning • Visual Memory • Visual Motor Integration
Strengths					
Weaknesses					
Comments					

Worksheet 10: Analysis of Test Reliability / Validity

Name of Reviewer:	Name of Test/Edition:
Date: / /	Recent Norm Data (date): / /

Purpose of Test		
Psychological	**Speech/Language**	**Academic**
☐ Global Intelligence	☐ Receptive Language	☐ Reading
☐ Attention	☐ Expressive Language	☐ Alphabetic Principle
☐ Alertness	☐ Vocabulary	☐ Phonemic Awareness
☐ Performance Consistency	☐ Basic Concepts	☐ Word Analysis/Attack
☐ Self-Monitoring	☐ Semantics	☐ Oral
☐ Temporal-Sequential Ordering	☐ Syntax/Morphology	☐ Silent
☐ Sequential Awareness	☐ Auditory Processing	☐ Fluency
☐ Perception	☐ Language Processing	☐ Comprehension
☐ Memory	☐ Pragmatics	☐ Vocabulary
☐ Time Management	☐ Verbal	☐ Automaticity Of Word Recognition
☐Spatial Ordering	☐ Non-Verbal	☐ Written
○ ☐ Spatial Awareness	☐ Para-linguistics	☐ Handwriting
○ ☐ Perception	☐ Critical Thinking	☐ Mechanics And Grammar
○ ☐ Memory	☐ Verbal Problem Solving	☐ Spelling
☐ Memory	☐ Articulation/Phonology	☐ Organization
☐ Short-Term	☐ Other	☐ Style
☐ Long-Term		☐ Ideation
☐ Active Working		☐ Editing
☐ Social Cognition		☐ Math
☐ Verbal Pragmatics (Includes Interpretation Of Feelings)		☐ Operations/Computation
☐ Code Switching		☐ Application
☐ Social Behaviors		☐ Concepts
☐ Language		☐ Problem Solving
☐ Receptive		☐ Functional
☐ Expressive		☐ Time
☐ Executive Functions/Reasoning		☐ Money
☐ Concept Formation		☐ Charts/Tables/Graphs
☐ Critical Thinking		☐ Measurement
☐ Creativity		☐ Statistics and Probability
☐ Problem Solving		☐ Adaptive Behavior
☐ Logical Thinking		☐ Self-Care/Daily Living
☐ Developmental Levels Motor		☐ Communication
☐ Gross		☐ Social Skills
☐ Fine (e.g., Graphomotor)		☐ Attention
☐ Social/Emotional		☐ Motor Skills
☐ Adaptive Behavior		☐ Problem Solving
☐ Other		☐ Other

Worksheet 10: Analysis of Test Reliability / Validity

1. Appropriate samples for test validation								
Population for the test								
Sample Population	Sample Size	Age	Gender	Ethnic Background	SES	Language	Region of US	Other Country

2. Reliability			
Is the reliability sufficiently high to warrant the use of the test as a basis for making decisions concerning individual students? (In general: .90=high; .80=moderate; .70=low)	High	Moderate	Low
3. Predictive Validity (Rater Judgment)			
Is it an accurate predictor of performance? (If questionable is marked, please explain under the final question, *additional limitations, below*.)	Yes	Questionable	No
4. Content Validity (Rater Judgment)			
Are there sufficient test items to measure the skill being assessed?	Yes	No	
What limitations are described in the manual?			
Are there additional limitations that the examiner should consider (i.e., from Mental Measurements Yearbook or Rater Evaluation)?			
Does the manual indicate that the test was reviewed by a cultural bias review panel? If so, how many individuals were consulted and what were their qualifications? How was their input used?			
Additional Comments Is this test appropriate to use with African American students? ☐yes (whole test) ☐yes (part) ☐ no Is this test appropriate to use with English Language learners students? ☐ yes (whole test) ☐yes (part) ☐ no			