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CASP TODAY

> ANNUAL REPORT

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SAVE THE DATE

'Invest in you' at CASP Con 2018

Convention will include presentations and activities focusing on self-investment

By **Raina LeGarreta**, CASP Communications Specialist

Investing in yourself mentally, physically, and spiritually helps you be the best you that you can be. As a result, you offer that best 'recharged you' to your students, which consequently helps them thrive.

CASP's 69th Annual Convention, "Investing in You = Investing in Students" on Nov. 8-10 at Hyatt Regency Mission Bay in San Diego will feature presentations that will help you improve your knowledge and life skills so that you can take this experience back to your district. Take a look at all the convention has to offer. http://event.casponline.org

Noted presenters and students will explore subjects such as strength-based education, keys to releasing resilience, legal hot topics, LGBTIQ issues, tips on becoming an LEP and studying for the LEP Exam, a free workshop for CASP student members on youth mental health first aid, and more.

The convention will also include physically and soulfully nourishing activities including yoga, a meditation and mindfulness session, and a fun run. Special gatherings will be held during the event for students, and CASP's Alumni Club.

This year's annual event will kick off with a pre-convention workshop, "Simplifying Identification of True Dyslexia: Similarities and Differences," presented by **Rodrigo Enciso** and **Dr. Steven Feifer** on Wednesday, Nov. 7 at 1:30 p.m. CEUs will be offered for this workshop, which will be followed at 7 p.m. by the Town Hall meeting. This year's topic will be human trafficking, with experts from law enforcement, nonprofits and schools on the panel.

General Session will kick off the Convention Thursday morning with keynote speaker Galt Joint Union Elementary School District Superintendent **Dr. Karen Schauer** whose presentation, "Just Imagine... Strengths-based Education: A School District's Journey" will concentrate on the development of Multi-Tiered System of Supports that focus on the individual needs of each student in the small, rural, Northern California school district.

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Corporate Corner:

Specific Learning Disability Eligibility Determination using a Pattern of Strengths and Weaknesses in Basic Psychological Processes and Achievement

By **Jack A. Naglieri** & **Steven G. Feifer**[1]

Editor's Note: This new CASP Today section will highlight articles on new assessments, new uses for old assessments and other information from our corporate members.

Identification of students who have a specific learning disability (SLD) has evolved in recent years from an ability-achievement discrepancy paradigm toward an approach based on a pattern of strengths and weaknesses in basic psychological processing and academic skills. Naglieri (1999) first wrote about aligning a student's scores from a test of processing with the definition of SLD in IDEA using what he termed the *Discrepancy/Consistency Method* (DCM), most recently described by Naglieri and Otero (2017). Although this conceptual method could be used with most cognitive measures, it has been associated with a Pattern of Strengths and Weaknesses (PSW) approach involving the Planning, Attention, Simultaneous, and Successive (PASS) neurocognitive theory (as measured by the Cognitive Assessment System). We chose this theory not only because it has considerable empirical support (Naglieri & Otero, 2017), but also because it answers the critical questions, "Why does the student struggle?" and most importantly "What can be done to address the disorder in processing and improve academic functioning?" To answer these questions, it is also critical for examiners to evaluate how specific PASS processes interact with specific academic domains. This is where the Feifer Assessment of Reading (FAR) and Feifer Assessment of Math (FAM) fit in. These are diagnostic achievement tests used to determine how PASS processes specifically impact reading and math.

The purpose of this article is to explain how to interpret scores from these measures to determine if a student has a specific learning disability, and to provide specific intervention strategies tailored to the learning needs of the child. We will describe how to use the Discrepancy/Consistency Method (DCM) to identify specific learning disabilities (SLD) because this approach is most consistent with IDEA and state definitions of SLD. The combination of PASS as measured by the Cognitive Assessment System – Second Edition (CAS2; Naglieri, Das, & Goldstein, 2014) with the FAR and FAM provides a theoretically sound, empirically supported approach that requires far less time to administer, has been shown to be appropriate for diverse populations, and better informs intervention decision making. The DCM gives practitioners an efficient way to identify students with SLD in a manner that is consistent with the state of California and IDEA rules and regulations. Importantly, according to Reynolds (2018) the Discrepancy/Consistency Method which combines PASS scales on the CAS2 with the FAR and FAM "is more theory-driven that any other model [and] provides good empirical support for the approach and practical advice in its implementation (p. xi).

[1] Jack A. Naglieri (email: jnaglieri@gmail.com) is the author of the *Cognitive Assessment System- Second Edition* and Steven G. Feifer is the author of the *Feifer Assessment of Reading and Feifer Assessment of Math*.

SLD Identification

In California, a specific learning disability, as defined in 5CCR Section 3030 in the Barclays Official California Code of Regulations, a Specific Learning Disability:

> *means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may have manifested itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The basic psychological processes include attention, visual processing, auditory processing, sensory-motor skills, cognitive abilities including association, conceptualization and expression.*

The rules continue as follows:

> *In determining whether a pupil has a specific learning disability, the public agency may consider whether a pupil has a severe discrepancy between intellectual ability and achievement in oral expression, listening comprehension, written expression, basic reading skill, reading comprehension, mathematical calculation, or mathematical reasoning. That term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of intellectual disability, of emotional disturbance, or of environmental, cultural, or economic disadvantage.*

Furthermore, dyslexia legislation recently enacted in California states:

ARTICLE 2.5. Eligibility Criteria for Special Education and Related Services on the Basis of Language and Speech Disorder or Specific Learning Disabilities [56333 - 56338]

*"The Superintendent shall develop program guidelines for **dyslexia** to be used to assist regular education teachers, special education teachers, and parents to identify and assess pupils with **dyslexia** and to plan, provide, evaluate, and improve educational services to pupils with **dyslexia**. For purposes of this section, "educational services" means an evidence-based, multisensory, direct, explicit, structured, and sequential approach to instructing pupils who have **dyslexia**."*

We propose that it is essential for practitioners in California to utilize tests capable of delineating the basic psychological processes integral to the definition of SLD and Dyslexia to align the methods used for assessment with the State and Federal definitions. We further suggest that using PASS neurocognitive scores from the *Cognitive Assessment System-Second Edition* (CAS-2; Naglieri, Das & Goldstein, 2014) along with academic processing scores from the *Feifer Assessment of Reading* (FAR; Feifer, 2015) and/or *Feifer Assessment of Mathematics* (FAM; Feifer, 2016) provides an ideal way to assess children in concordance with state guidelines, as well as provides the most meaningful interventions. But first we provide the 10 most salient and important reasons to use PASS theory as measured by CAS2 along with the FAR and FAM.

1. Because PASS scales on the Cognitive Assessment System – Second Edition (Naglieri, Das & Goldstein, 2014) measure *thinking* (i.e. basic psychological processing) rather than knowing (e.g., vocabulary, arithmetic word problems) the test is very appropriate for assessment of diverse populations of students and those with limited educational opportunity.

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2. PASS scores can be easily obtained in 40 minutes (using the 8-subtest Core Battery) or 60 minutes (using the 12-subtest Extended Battery) and scoring and narrative reports are easily obtained using online score and report program.
3. PASS results are easy to explain to teachers, parents and the students themselves because the concepts can be explained in non-technical language. That is, the four processing scales measure: how well a student can (a) decide how to solve problems (Planning), focus and resist distractions (Attention), see relationships among things (Simultaneous); (d) and work with information arranged in a sequence (Successive).
4. The PASS theory and the CAS2 provide a way to both *define* and *assess* basic psychological processes so that practitioners can obtain scores that are consistent with California statutes.
5. The PASS scores are strongly correlated to achievement, show distinct patterns of strengths and weaknesses for different populations (e.g., Dyslexia, ADHD, Autism), are very useful for intervention planning, and provide the most equitable way to measure diverse populations.
6. Together, the PASS and FAR/FAM scores provide excellent evidence of a pattern of strengths and weaknesses in basic psychological process (PASS) and achievement based upon an empirically supported neurocognitive model of learning consistent with brain functioning.
7. The FAR and the FAM both have interpretive scoring reports that generate numerous interventions, learning strategies, websites, and apps to assist educators and parents working with children who have specific learning disorders.
8. Using the CAS2 in combination with the FAR or FAM is a much more ecologically sound approach to identify specific psychological processes *directly* related to the academic skill in question.
9. Both the CAS2 and FAR or FAM are more cost effective and provide examiners with a timely manner of assessment than standard cross-battery methods and puts far less of a burden on the student.
10. Using the CAS2 in combination with the FAR or FAM provides examiners with a more reliable and consistent method to determine SLD identification, especially if utilizing the discrepancy-consistent method.

PASS: A Neurocognitive Approach and Reading and Math Skills

The PASS neurocognitive approach is based on A.R. Luria's (1973, 1980) conceptualization of the functional organization of the brain. This view of ability is an alternative to 100-year old notions that intelligence tests must require verbal and quantitative skills (Naglieri & Otero, 2017). In fact, the impetus for the development of the CAS (Naglieri & Das, 1997) and the recently updated CAS2 (Naglieri, et al., 2014) was to better define and measure ability defined as cognitive processes in a manner that is consistent with brain functioning. The four PASS processes represent a fusion of cognitive and neuropsychological constructs including Planning (how a person does what he or she decides to do), Attention (focusing and resisting distractions), Simultaneous (seeing relationships among ideas and things), and Successive (working with information arranged in a specific sequence). These processes are elegantly interwoven with academic skills in the FAR and FAM to better identify subtypes of reading and math disabilities in children.

For instance, with respect to reading, the primary PASS process needed for sequencing letters together to recognize words is *Successive Processing*. Difficulties with Successive processing tests on the CAS2 coupled with difficulties on the Phonological Index of the FAR would be consistent with a learning disability in a basic reading skill; in particular, dyslexia. On the other hand, some students have little difficulty accurately sequencing sounds, but struggle with reading speed, automaticity, and fluency. In other words, these students have difficulty with orthographic processing, and struggle reading words that are not phonetically decodable *(i.e. "debt", "onion", "yacht", etc.)*. Simply put, these children are sound-by-sound, letter-by-letter readers, which greatly slows them down and hinders fluency. The primary PASS process needed for the visual-spatial recognition of the printed word form as a whole involves *Simultaneous Processing*. Therefore, difficulties with *Simultaneous* processing on the *CAS2* coupled with difficulties on the *Fluency Index* of the FAR would be consistent with a learning disability impacting reading speed and fluency.

The role of Simultaneous and Successive Processing in reading has important implications for Tier 1 screening. For example, young readers tend to rely more on phonics and chunking sounds and syllables. As they mature as readers and develop speed and fluency, then Simultaneous processing becomes more important. However, when children experience phonologically irregular words (i.e. yacht, debt, etc.) both processes are required in the initial stages. That is, they often sound out and chunk together elements of the word, until enough is recognized to utilize Simultaneous processing to identify the printed word form as a whole. So, the age of the child and where they are on their developmental trajectory of reading skills is critical in determining which PASS process may be relied upon most when reading and therefore the cognitive processing demand of the screening test must be considered. For instance, if a one-minute reading test is used to measure fluency, poor performance on such a test may result if a student has a weakness in Simultaneous processing. In other words, the student may be over-relying upon Successive processing to ensure accuracy and sacrifice speed in doing so. This type of strategy is typical among beginning readers, as well as students who may be anxious and under-confident in their reading skills. However, if a phonological skills test such a pseudo-word reading measure is used, poor performance on such a test may reflect a true Successive processing weakness. Said another way, Successive processing allows for reading accuracy while Simultaneous processing allows for reading speed. Therefore, the score from a one-minute fluency screening tool can miss a student with a weakness in Successive processing. Similarly, a phonologically based screening tool can miss a student with a weakness in Simultaneous processing.

The same holds true for mathematics. For instance, deficits in the ability to count, order, or sequence numbers and/or sequence mathematical procedures (e.g., remembering the algorithm) when problem solving is represented by the FAM's Procedural Index. When there is a breakdown in the procedural system, the syntactical arrangement and execution of arithmetical procedures necessary to perform multi-digit tasks such as long division, multiplying or dividing multi-digit numbers, as well as working with fractions and decimals is compromised. These students often have a PASS profile on the CAS2 consisting of poor Successive processing, as well as limited *Planning* and *Attention*, that often results in losing their

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place while problem solving and careless miscues. Lower scores on the FAM Procedural Index and CAS2 *Successive* Processing and *Attention* would be consistent with a learning disability in mathematical calculation.

On the other hand, some students perform well with basic math calculation skills, but struggle with quantitative reasoning and selecting a particular math strategy when problem solving. Students with a poor conceptual understanding of mathematical principles and limited number sense are measured by the FAM's *Semantic Index*. Often times, these students tend to memorize equations without any real meaning or applicational possibilities. The ability to deploy a particular mathematical strategy *(Planning)* is often lacking, as well as limitations with *Simultaneous Processing* which often results in an inability to visualize magnitude representations as well. Lower scores on the FAM *Semantic Index* coupled with lower scores on the CAS2 *Planning* and *Simultaneous* Indices would be indicative of a learning disability in mathematical reasoning.

The combination of PASS with reading and math scores provides the essential ingredients for documenting a learning disability in a specific area. This method of combining tools gives practitioners considerable ability to understand learning and learning problems, make SLD eligibility decisions, and identify appropriate instructional methods.

The Discrepancy/Consistency Method

The Discrepancy/Consistency Method for the identification of SLD using a pattern of strengths and weaknesses in neurocognitive processes (PASS) and academic skills is accomplished using a modified version of the method originally proposed by Davis (1959), popularized by Kaufman (1979), and Silverstein (1993) which compares the four PASS scores a child earns to his or her average. Utilizing this ipsative approach is a way to detect a pattern of strengths and weaknesses in basic psychological processes that can be compared to variability in achievement test scores for both eligibility determination and intervention decision making.

The DCM is based on an analysis of theoretically defined measures of basic psychological processes that correspond to brain function (see Naglieri & Otero, 2011, 2017). We also recommend that interpretation of differences among basic psychological processing scores be based on (a) a theoretically derived test of neurocognitive processing; (b) the focus should be on *scales* that represent the theory, *not individual subtest* scores; and (c) the academic skills that are assessed should correspond to the measure of neurocognitive processes. We recommend using scores from scales that reflect a *specific* neurocognitive theory for determining if there is a disorder in one or more of the basic psychological processes and scores that measure specific aspects of academic performance. We also advocate a two-dimensional analysis of processing scores: low scores in relation to the *student's* average processing score (relative differences) and low scores in relation to the *national* average (absolute differences).

Naglieri (1999) suggested that a low PASS score relative to a specific student's average PASS score could provide evidence of a *specific* disorder in one or more of the basic psychological processes *only* if the score is also below the Average range (i.e. a standard score having a mean of 100 and standard deviation of 15 that is less than 90). Additionally, the student must have a pattern of weaknesses in academic performance. This approach is illustrated in the case example that follows which shows that SLD can be detected by assessing the relationship between *three* sets of scores:

1. A significant *discrepancy* between the child's high cognitive processing scores and some specific academic achievement.
2. A significant *discrepancy* between the child's high and low cognitive processing scores.
3. A *consistency* between the child's low processing and low achievement scores.

This is how to operationalize the pattern of strengths and weaknesses (PSW) in a way that is consistent with Federal and State rules. Furthermore, this method saves practitioners time, requires far less testing, leads to more targeted and specific interventions, and is more ecologically valid since the focus is placed directly on cognitive processes that directly relate to the academic skill in question.

Exactly how to manage the comparisons of processing and achievement test scores is complicated by the reality of the legislative mandates that school psychologists need to follow, such as the analysis of the size or magnitude of the discrepancies, and the correspondence of test scale labels and descriptions in the law. For example, the basic psychological processes described in the California rules include: attention, visual processing, auditory processing, sensory-motor skills, and cognitive abilities including association, conceptualization and expression. How these correspond to the scores obtained from the CAS2, or any other measure, requires clarification. We provide guidelines for this in Table 1. It is important to understand that what we have suggested is based on connecting old terms like visual and auditory processing, with more modern conceptualizations of basic psychological processes. Although some of these may be imperfect, this reflects the reality of practice and the need to be as true to the rules as possible given that Federal and State guidelines do not provide adequate research-based definitions of the categories that practitioners are required to use. We are suggesting that there are enough similarities between how these concepts are measured that reasonable associations with scores from the CAS2, FAR and FAM are possible.

Table 1. **Correspondance of Cognitive Assessment System - Second Edition Scales with Commonly Used Descriptions of Processing.**

CAS2 Scales	Attention	Visual Processing	Auditory Processing	Phonolocial Processing	Sensory-Motor Skills	Association	Conceptualization	Expression
Primary Scales								
Planning		✓			✓		✓	✓
Attention	✓	✓						
Simultaneous		✓					✓	
Successive			✓	✓	✓	✓		
Supplemental Scales								
Executive Function			✓					
Executive Function with Working Memory			✓	✓				
Working Memory			✓	✓				
Verbal Content						✓		
Nonverbal Content							✓	
Speed/Fluency					✓			
Visual-Auditory Comparison		✓	✓					

Note: Association, conceptualization and expression are described as cognitive abilities.

The description of scores from a measure of academic skills that accompany a disorder in one or more of the basic psychological processes also includes categories that are not well defined but can also be reasonably aligned with academic test scores. We provide

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correspondence of the academic skill areas with the FAR and the FAM in Tables 2 and 3. The next important question is exactly how to compare the scores from these tests, which are both set to have a mean of 100 and standard deviation of 15.

Table 2. **Correspondance of Feifer Assessment of Reading (FAR) Scores with Reading Skills.**

FAR	Reading Comprehension	Basic Reading Skill	Reading Fluency Skills	Phonological Processing	Written Expression	Oral Expression	Listening Comprehension
Phonological Index		✓	✓				
Phonemic Awareness				✓			
Nonsense Word Decoding				✓			
Isolated Word Reading Fluency		✓	✓				
Oral Reading Fluency		✓	✓				
Positiong Sounds				✓			
Fluency Index		✓	✓				
Rapid Automatic Naming			✓				
Verbal Fluency						✓	
Visual Perception							
Irregular Word Reading Fluency		✓	✓				
Orthographical Processing							
Mixed Index		✓	✓				
Comprehension Index	✓		✓				
Semantic Concepts							
Word Recall							✓
Print Knowledge		✓					
Morphological Processing							
Silent Reading Fluency: Comprehension	✓		✓				

Table 3. **Correspondance of Feifer Assessment of Math (FAR) Scores with Math and Reading Skills.**

FAM	Listening Comprehension	Math Calculation	Math Problem Solving
Procedual Index		✓	✓
Forward Number Count	✓		✓
Backward Number Count	✓		✓
Numeric Capacity			
Sequences		✓	
Object Counting	✓		✓
Verbal Index	✓		✓
Rapid Number Naming			
Addition Fluency	✓		✓
Subtraction Fluency	✓		✓
Multiplication Fluency	✓		✓
Division Fluency	✓		✓
Linguistic Math Concepts	✓		✓
Semantic Index		✓	✓
Spatial Memory			
Equation Building	✓		✓
Perceptual Estimation			
Number Comparison		✓	
Addition Knowledge		✓	
Subtraction Knowledge		✓	
Multiplication Knowledge		✓	
Division Knowledge		✓	

Working the Numbers

The California Code of Regulations 3030 states the following:

> When standardized tests are considered to be valid for a specific pupil, a severe discrepancy is demonstrated by: first, converting into common standard scores, using a mean of 100 and standard deviation of 15, the achievement test score and the intellectual ability test score to be compared; second, computing the difference between these common standard scores; and third, comparing this computed difference to the standard criterion which is the product of 1.5 multiplied by the standard deviation of the distribution of computed differences of students taking these achievement and ability tests. A computed difference which equals or exceeds this standard criterion, adjusted by one standard error of measurement, the adjustment not to exceed 4 common standard score points, indicates a severe discrepancy when such discrepancy is corroborated by other assessment data which may include other tests, scales, instruments, observations and work samples, as appropriate.

In order to determine if there is a discrepancy among the CAS2 and FAR and FAM scores using the DCM method, these guidelines indicate that a difference of 23 standard score points (1.5 X 15 = 22.5; which rounds to 23) or more would be required. When making the processing versus achievement comparisons, it is important to consider the Full Scale CAS2 score *will not* be a good description of a student's overall ability when there are significant differences among the four PASS scores. Therefore, the Full Scale score should *not* be the only value used when making comparisons to achievement, or it may be omitted completely. That is, emphasis should be placed on the individual PASS scales (and Supplemental scores) and *not* on the Full Scale nor the subtests.

Naglieri and Otero (2017) provided the values needed for significance when comparing the scores from the CAS2 with any of the scores from the most widely used measures of achievement, including the FAR (Table D1) and FAM (Table E1). Their calculations, which were based on the reliability of the difference between the scores, revealed that 97% of the time, the value needed for significance when comparing PASS scores to those from the FAR and FAM were less than 23 required by California Code. The means, using the 1.5 standard deviation difference, would lead to failure to identify a specific learning disability or what is commonly referred to as a Type II error. Therefore, the following portion of The California Code of Regulations should be used to identify students with a SLD when a significant discrepancy is found as prescribed by the DSM:

> If the standardized tests do not reveal a severe discrepancy ... the IEP team may find that a severe discrepancy does exist, provided that the team documents in a written report that the severe discrepancy between ability and achievement exists as a result of a disorder in one or more of the basic psychological processes. The report shall include a statement of the area, the degree, and the basis and method used in determining the discrepancy.

We will present a case study that illustrates the DCM and its application under the California rules.

The Case of Peter

Peter is currently in 4th grade and performing below grade level in both reading and mathematics despite numerous interventions and classroom accommodations. For instance, he struggles to remember the sequence of steps when doing math equations, is inconsistent with basic math facts, struggles with long passages when reading, and has difficulty decoding and spelling hard words. What remains puzzling is that Peter has an outstanding memory for details and excels when remembering specific aspects of a field trip or any type of experiential learning experience.

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Peter's CAS-2 Full Scale score of 92 was in the Average range, and at the 30th percentile compared to peers (see Table 4). This score does not illuminate Peter's disorder in basic psychological processing and (a) because that score is a composite of the four PASS processes and (b) there is a significant difference in these scores, the Full Scale has very little value. Importantly, most of his PASS scores are in the average or above ranges, except for his Successive processing score of 75, which falls at the 5th percentile rank and was a relative weakness. Lower scores on this scale reflects his difficulty working with any kind of information or task that demands sequencing. It is important to note that difficulties with Successive processing can hinder both verbal information (i.e. remember multiple step directions) or non-verbal information (i.e. remembering longer algorithms or steps when engaged in more complex mathematics) as well as reading decoding and spelling.

Table 4. **Peter's PASS and Full Scale Scores from the Cognitive Assessment System – Second Edition.**

Cognitive Assessment System - 2			Difference from PASS Mean of:	Significantly Different (.05) from PASS Mean?	Strength (S) or Weakness (W)
PASS Scales	Standard Score	Percentile	92.2		
Planning	92	30	-0.3	no	
Attention	92	30	17.8	no	
Simultaneous	110	75	-0.3	yes	S
Successive	75	5	-17.3	yes	W
CAS-2 Full Scale	92	30			

Peter's scores on the Feifer Assessment of Mathematics (FAM: Feifer, 2016) helps us understand the underlying processes that support the acquisition of proficient math skills (see Table 5). He has a significantly low score on the FAM Procedural Index, which involves skills that demand sequencing (Successive processing) such as skip counting forward and backward from various points on a number line, as well as recognizing patterns and sequences among number relationships. His Procedural Index score was 76, which was in the Moderately Below Average range, and at the 5th percentile compared to peers. Peter's core deficit with Successive processing influences mathematics in both a symbolic fashion (i.e. difficulty identifying number patterns) as well as a conceptual fashion (i.e. difficulty remembering the sequences of steps needed to solve more complex equations). In addition, Peter also struggled on the Verbal Index, he scored 82, which is a measure of automatic or reflexive problem solving of single digit math facts. His scores are in the below average range and at the 12th percentile compared to peers. Peter had difficulty retrieving basic math facts when timed, though his conceptual understanding of mathematics was sound (Semantic Index). Difficulty with math fact retrieval in lieu of a good conceptual understanding of mathematics is often seen among students with language-based types of learning disabilities.

Table 5. **Peter's Scores on the Feifer Assessment of Math and Feifer Assessment of Reading.**

		Standard Score	Percentile	Category
FAM	Procedural Index	76	5	Moderately Below Average
	Verbal Index	82	12	Below Average
	Semantic Index	98	45	Average
	FAM Total Index	86	18	Below Average
FAR	Phonological Index	79	7	Moderately Below Average
	Fluency Index	92	32	Average
	Mixed Index	85	14	Below Average
	Comprehension Index	90	27	Average
	FAR Total Index	84	14	Below Average

Analysis of the differences between Peter's PASS and reading and math are shown in Table 6. The significance of the differences between the PASS and FAR, as well as PASS and FAM scores (note all are set to have a mean of 100 and standard deviation of 15) was determined based on values needed for significance when making a comparison of standard scores from these tests provided in Appendix D and E by Naglieri and Otero (2017). We have noted which comparisons would be considered as significant using the California rule of 23 and higher as well as those comparisons which are significant based on the reliability of the difference between the scores provided by Naglieri and Otero (2017).

Table 6. **Comparisons of PASS Scores with FAR and FAM Scores for the Case of Peter.**

			Planning	Simultaneous	Attention	Successive	Full Scale
			92	110	92	75	92
FAR	Phonological Index	79	***-13***	**-31**	***-13***	4	***-13***
	Fluency Index	92	0	***-18***	0	17	0
	Mixed Index	85	-7	**-25**	-7	10	-7
	Comprehension Index	90	-2	-20	-2	15	-2
	FAR Total Index	84	-8	**-26**	-8	9	-8
FAM	Procedural Index	76	***-16***	**-34**	***-16***	1	***-16***
	Verbal Index	82	-10	**-28**	-10	7	-10
	Semantic Index	98	6	-12	6	23	6
	FAM Total Index	86	-6	**-24**	-6	11	-6

Notes:
Negative values indicate that the FAM or FAR score is below the PASS score.
Differences greater than State guidelines (-22) appear in bold.
Differences which are significant at $p = .05$ based on values provided by Naglieri & Otero (2017) appear in bold italics.

Peter's scores from the Feifer Assessment of Reading (FAR: Feifer, 2015) further help understand him as a learner. This test measures four specific subtypes of reading disorders, all of which are derived from deficits in one or more PASS basic psychological processes. Peter also obtained a FAR Total Index score of 84, which was in the Below Average range of functioning and at the 14th percentile compared to peers. He especially had difficulty within the Phonological Index (PI=79), which demands the use of Successive processing to decode individual sounds or phonemes to identify words. His strategy (a plan) was to rely on his stronger Simultaneous processing, as evidence by his good performance on the Fluency Index and on the CAS2. For example, Peter performed well on a task that required him to identify phonologically irregular words (i.e. yacht, debt, onion, etc.), because these words require the use of orthographic strategies. In other words, the ability to utilize Simultaneous processing to identify the visual word unit as a wholistic entity was a relative strength for Peter, and often used to compensate for his weaker Successive skills. In many ways, Peter was memorizing his way through reading.

In fact, Peter had considerably more difficulty identifying words that were readily decodable, because these words rely upon Successive processing to combine sounds in a linear or sequential fashion. That is, Peter struggled on the decodable words because of his weakness in Successive processing, so he often over-relies upon his strong Simultaneous processing to take in the entire printed word form, a strategy much better suited for phonologically irregular words that cannot readily be decoded. These results suggest that Peter would benefit from an explicit phonological approach

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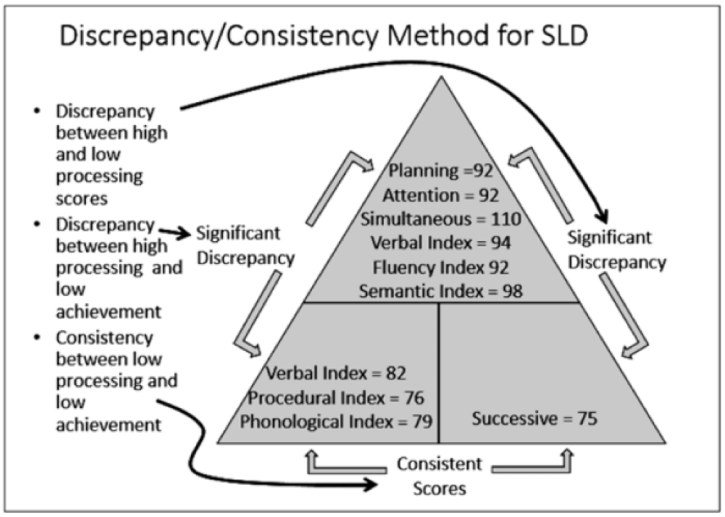
to reading (i.e. Fundations, Wilson, Orton-Gillingham, etc.) that allowed him to develop more automaticity with respect to blending and sequencing sounds to recognize words.

The case of Peter illustrates (see Figure 1) how the Discrepancy/Consistency method can be used to both conceptualize and communicate results to teachers and parents. This approach provides a way to organize the Peter's processing strengths and weaknesses, as well as the relationships among his PASS and academic skills, for SLD eligibility determination and to develop targeted interventions. As can be seen from Figure 1 there was a significant discrepancy between Peter's Successive processing and the rest of his psychological processing scores as measured by the CAS-2. In addition, the FAM indicated that his Procedural Index was a weakness, and the FAR indicated that his Phonological Index was a weakness. Finally, there was a consistency between Peter's difficulties in the sequential aspect of mathematics (Procedural Index) and sequential aspects of reading (Phonological Index), and lower Successive Processing scores. Therefore, it is important to note that PASS basic psychological processes as measured by the CAS-2 help us understand how multiple academic skills can be impacted by deficits in a core psychological process.

Figure 1. **Discrepancy/Consistency Method for SLD**



Put simply, the CAS-2 can identify core neuropsychological processing deficits concomitant to most learning endeavors, and the FAR and/or FAM can capture how these processes are specifically manifested in specific academic areas. The combination of using a cognitive processing measure and an academic processing measure provides a much more ecologically sound assessment while remaining consistent with current California statutes and regulations.

Peter has a disorder of a basic psychological process that impacts phonology and would meet the state criteria for SLD (i.e., Dyslexia). However, his deficits with Successive processing hinder numerous other academic domains and therefore, practitioners need to ensure that interventions are crafted to address multiple academic areas. For instance, specific strategies to assist Peter in math may include learning how to chunk information, practice on number line fluency skills, playing math games such as the "24 game" to develop greater procedural knowledge when problem solving, and utilizing mnemonic strategies to remember longer mathematical algorithms. See Naglieri and Pickering (2010) and Naglieri & Feifer (2017) for further information about interventions.

Closing Thoughts

We recognize that school psychologists have to manage many issues when conducting a comprehensive evaluation, from logistical and practical to theoretical, and that eligibility decision making can have a profound influence on a student's life. For this reason we have emphasized the need to use methods and tools that have a firm grounding on a theory of human learning (PASS) as it applies to acquisition of reading and math skills and at the same time recognizing precisely how these test scores can be interpreted within State and Federal guidelines. The approach we have advocated for has considerable validity (see Naglieri & Otero, 2017 for a summary) which we suggest also complies with State and Federal requirements of reliability and validity. We have taken a decidedly nontraditional approach to the conceptualization and measurement of basic psychological processes, abandoning traditional IQ and achievement tests. Instead, we approach measurement of academic skills in a unique way that reveals the interplay of PASS neurocognitive processes with the student's approach to solving academic tasks. This uniquely theory-driven new approach to understanding student performance gives us a way to provide the very best service possible to the students, teachers and parents we serve.

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