Using the Core-Selective Evaluation Process (C-SEP) to Identify a Pattern of Strengths and Weaknesses

Edward Karl Schultz, Ph.D., Midwestern State University and Tammy L. Stephens-Pisecco, Ph.D., Clinical Assessment Consultant

Abstract

The Core-Selective Evaluation Process (C-SEP) model is defined as a third-method PSW approach to identify specific learning disabilities (SLD), and is an efficient and focused data-driven professional judgment process rooted in contemporary Cattell-Horn-Carroll (CHC) theory. Specifically, using single-batteries of tests (e.g., Woodcock-Johnson IV [W] IV], Wechsler Intelligence Scale for Children, Fifth Edition [WISC-V], and Wechsler Individual Achievement Test, Third Edition [WIAT-III], etc.) as the foundation of the evaluation, integrated with current policy and supporting data, the most salient features of SLD are assessed and an individual's unique pattern of strengths and weaknesses are identified. This article will further describe the organizational framework of C-SEP, distinguish it from other methods, and provide an illustration of its use within a case study.

In response to the improvements in test design and the ongoing quest to identify students with specific learning disabilities (SLD) in the most efficient and accurate manner (Flanagan, Fiorello, & Ortiz, 2010; Mather, & Wendling, 2015: Schrank, Decker, & Garruto, 2016), the Core-Selective Evaluation Process (C-SEP) was conceptualized and recently introduced to the field (Schrank, Stephens, & Schultz, 2016; Schrank, Stephens, & Schultz, 2017; Schultz & Stephens, 2015; Stephens & Schultz, 2015). This approach to SLD identification is a thirdmethod pattern of strengths and weakness (PSW) approach rooted in contemporary CHC theory and features the application of professional judgment, integrated data analysis techniques, and the use of statistical support to help guide decisions. The organizational framework of C-SEP is a set of sound educational practices (Shrank, Stephens, & Shultz, 2017) logically interwoven to provide a comprehensive, statistically sound, and legally defensible assessment of SLD. This article will further describe the organizational framework of C-SEP, distinguish C-SEP from other models, and provide an illustration of this model using a case study.

Organizational Framework

The C-SEP method is a PSW approach to SLD identification and assumes its application to reflect current Texas Policy regarding SLD identification using a PSW. In broad terms and directly related to the C-SEP, these three conditions must by satisfied in order to meet SLD eligibility requirements:

- 1. Data collected in order to show appropriate instruction prior to referral. This may be accomplished through responseto-intervention (RTI) systems or some other type of supplemental instruction.
- 2. The student does not achieve adequately for the child's age or meet state-approved grade-level standards (IDEA, 2004). This requires the use of multiple measures in order to determine if student is achieving adequately (e.g., Curriculum-Based Measurement (CBM), Curriculum-Based Assessment (CBA), state testing, grades, work samples etc.).
- 3. The pattern is evident by significant variance among specific areas of cognitive function such as working memory and verbal comprehension; or between specific areas of cognitive function and academic achievement (Evans, Floyd, McGrew, & Leforgee, 2001; Flanagan, Fiorello, & Orriz. 2010; Floyd, Evans, & McGrew, 2003; Floyd, Meisinger, Gregg, & Keith, 2012; McGrew & Wendling, 2010; Newton & McGrew, 2010). Significant variance is not defined in TX regulations; however, the variation must be important and meaningful (practical) when scores differ by ~1 SD

when considering confidence intervals of norm referenced tests. Such patterns are identified using norm-referenced tests of cognition, language, and achievement and integrating and consideration of other data.

C-SEP refers primarily to the ways in which norm-referenced tests are used in the context of integrated data analysis techniques, current policy, and current research regarding the construct of SLD. It is important to note that when using any methodology for identifying SLD, alternate explanations for underachievement are fully examined (e.g., lack of adequate instruction, exclusionary factors, etc.).

Interventions Prior to Referral

Regardless of the identification model a local school district selects to identify SLD in Texas, by statute, academic interventions and supplemental instruction (e.g., tutoring, special classes, etc.) must be attempted to remediate the academic difficulty. Response-to-Intervention (RTI) in some form is used in nearly all schools in the state and recent reauthorizing of No Child Left Behind (NCLB), now called Every Student Succeeds Act (ESSA) contains language that allows funding to be used for these efforts (ESSA; 2015). The data collected during RTI (or any other instructional activity which occurs prior to referral), can be used as part of the evaluation and this formative and archival data is one of the variety of assessment tools and strategies that evaluators assure each evaluation decision was based on. Along with a thorough records review, this data becomes valuable throughout the process (Kwiatek & Schultz, 2014). Specifically, this data can provide important information concerning the student's academic strengths and weaknesses and establish a more focused evaluation.

An important tenet of C-SEP is the efficiency and focus of the evaluation. The guiding principle is that individual norm referenced academic achievement assessments are only used to assess areas of suspected academic weaknesses or to collect data for something we do not know (e.g., collecting additional support). A simple example is as follows: a 4th grade student who has passed his reading state tests, earns good grades in reading, and has an educational history of progressing normally in reading does not require an individual norm-referenced academic assessment in reading because we do NOT suspect a disability in reading. Conversely, a student who struggles in reading (does not pass state test, does not respond adequately to interventions, etc.) would require the administration of a norm-referenced academic assessment to gain a deeper understanding of the nature of the reading concern. After confirming the student was provided adequate instruction and opportunities to learn, we need to investigate whether there is a cognitive, linguistic, or an alternate explanation as to why the student is struggling. To summarize, only the achievement areas identified prior to referral are tested using norm- referenced assessments. This provides not only a tighter focus to the evaluation, but allows the evaluator to dedicate time and resources to seek answers for things we do not know such as: is there a disorder in one or more of the basic psychological processes, or what is the impact of the student's language on the referral question?

Academic Assessment

As mentioned earlier, using the C-SEP model, individualized norm-referenced academic assessments are only administered in specific areas of concern. In addition, in the C-SEP model, achievement testing is conducted with the understanding that individual norm-referenced tests of achievement have several limitations (Schrank, Stephens, & Shultz, 2017; Schultz & Stephens, 2016). One limitation of significance is there is a lack of item density which means scores are based on limited samples and test aspects of the area of concern with only a few test items that differentiate age and grades. Another limitation is that norm-referenced tests are not aligned with state curriculums and not designed to assess state-approved grade-level standards which is a determinant factor in identifying SLD according to state policy (Kaufman & Kaufman, 2014; McGrew, LaForte, & Shrank, 2014). In order to determine if the student is meeting state approved grade level standards, Texas policy requires the use of multiple measures when determining SLD. It is for the above reason that the C-SEP approach integrates multiple measures of achievement and gives

appropriate weight to norm-reference scores. Other SLD mathematical models (i.e., simple discrepancy, dual-discrepancy) necessitate the use of an achievement standard score that may or may not be representative of the state's

Subtest and composite scores are the basis of discrepancy models, however the use of these scores require additional consideration. These scores may overestimate or underestimate a construct. According to the Wechsler Individual Achievement Test-3rd Edition (WIAT-3) technical manual, when referring to student with a possible math disability

... an overall subtest or composite score may overestimate or underestimate his or her math ability. For this reason, performing a skill analysis is particularly important for evaluating a student's profile of strengths and weaknesses (p.8)."

Other commonly used tests of achievement (and language, and cognition) have the potential to overestimate a construct due to confusing standard scores with functioning. This has been shown statistically when using the WJ-IV and the Kaufman Tests of Educational Achievement, Third Edition (KTEA-3). Norm-referenced standard scores or peer-comparison scores are distributed across a rank order and show a person's place in line (Jaffe, 2009). Proficiency scores, such as the ones reported on the WJ-IV (Relative Proficiency Index) and KTEA-3 (Error Analysis Procedure) are criterion referenced scores and are derived differently from position scores such as standard scores. This can result in a phenomenon in which a student may show an average standard score on a particular construct (>90), but their proficiency score may indicate weaknesses. Discrepancy models that use standard scores as the primary basis of identification have the potential to under or over identify students; proficiency scores are rarely, if ever, mentioned with these models. When using a PSW approach such as C-SEP, proficiency scores are better able to establish an individual's learning profile than simply using standard score discrepancy analysis (Shrank, Stephens, & Schultz, 2017).

This is not to say that norm-referenced assessments are not valued or necessary in the C-SEP model, rather they are used in different ways than traditional discrepancy approaches. An ecologically valid and comprehensive achievement profile can be obtained for a student using multiple measures as referenced in current policy such as Curriculum-Based Measurements (CBM), Curriculum-Based

Assessments (CBA), in-class tests, grade average over time, criterion-referenced tests, RTI data, and statewide assessments (Shultz & Stephens, 2016). When norm-referenced scores are used as the primary basis of identification in discrepancy models and used to make high stakes decisions then the evaluation is subject to the limitations described earlier. The C-SEP model does NOT use norm-referenced achievement scores as the primary basis or determinate factor for identification; however, they do provide interpretive value when placed in context with other measures and when analyzed at the proficiency level and task demand level. They are also useful to gain a deeper understanding of how a student approaches a task and the environmental controls. By not testing in areas in which sufficient data exists and fully exploiting all of the features of a test, the selective feature of C-SEP allows the examiner to be more comprehensive in the area of need.

The principal use of norm-referenced achievement tests in the C-SEP model is to explore statistical relationships with underlying cognitive correlates inherent to achievement tests. When achievement measures are viewed as observable and measurable academic behavior samples, a more sophisticated analysis can be conducted. The co-norming of the WJ-IV achievement/cognitive, and language batteries is one set of tests to analyze these relationships and inform judgment. In a similar fashion, the relationship between the Weschler WISC and WIAT/KTEA has been well established (Raiford, Drozdick, Zhang, & Zhou, 2015; Raiford & Holdnack. 2014. Table 1 will illustrate the relationship between cognitive measures and academic measures.

Patterns of Strengths and Weaknesses

Patterns of strengths and weaknesses (PSW) have been defined nationally several different ways Flanagan. Fiorello, & Ortiz, 2010; Floyd, Evans. & McGrew. 2003; Floyd, Meisinger, Gregg. & Keith. 2012; McGill, Styck, Palomores. & Hass. 2016; McGrew & Wendling, 2010: Newton & McGrew, 2010; Schultz, Simpson. & Lynch. 2012). In order to properly apply C-SEP a PSW is characterized by the following features: a multiple sources of data collected over a period of time, (b) integrated data analysis using techniques of pattern seeking, (c) predictive and treatment validity, and (d) the establishment of logical and empirical relationships between data (Schultz,

Table 1 Achievement Measures & Underlying Cognitive Correlates		
Achievement Measure	Underlying Cognitive Correlates According to Publisher	
KTEA: Letter and Word Recognition	Phonological Decoding Broad: Auditory Processing (Ga) Narrow: Phonetic Coding (PC)	
WJ-IV: Applied Problems	Broad: Fluid Reasoning (Gf) Narrow: Quantitative Reasoning (RQ)	
WIAT-Math Fluency-Addition	Broad: Math Achievement (Gq) Broad: Processing Speed (Gs) Narrow: Number Facility (N)	

Simpson, & Lynch, 2012). Understanding the duration of an academic problem is a critical variable in establishing a pattern of weaknesses, as by nature patterns become predictable. With this in mind, it is important to identify when the academic behavior began, what has been done to address it, and most importantly, what are we going to do to change the trajectory of the students' performance.

Language Assessment and Cognitive Assessment

All methodologies of SLD identification have significant overlap in techniques and procedures (with the exception of RTI only approaches). For example, there is general agreement that deficits in cognitive processing are a critical marker of SLD and that the construct of SLD is broadly defined as "unexpected underachievement" which implies the student possess strengths in most areas and that academic/cognitive weakness are somewhat isolated or "specific." In the C-SEP model, cognitive processes are measured and analyzed in a comprehensive, yet deliberate, thoughtful manner. For SLD referral questions, the core set of tests of a cognitive battery are administered and analyzed. Following the cognitive tests, language tests are administered and also analyzed. Widely used cognitive tests used in Texas (WJ IV and WISC-V) have recently been revised and improved upon previous versions.

Simply using individualized norm-referenced tests to obtain scores to run statistical analysis leads to superficial analyses and diminishes the interpretive value of the tests. Statistics should inform professional decision making instead of being the determinant factor. The & Mather 2014) has been redesigned with a core set of seven cognitive tests (Shrank, Decker, & Garruto, 2016) that provide several levels of interpretation. After administering the core, a General Intellectual Ability (GIA) score can be obtained, intra-cognitive variations between tests can be determined, and Relative Proficiency Index (RPI) scores among others are calculated. Once these data are analyzed, focused decisions can be made regarding further testing decisions. By using selective testing procedures in a deliberate, purposeful manner, an evaluator can administer a comprehensive and individually tailored set of tests that will yield the most important information for decision making and instructional planning purposes in the least amount of testing time (Schrank, Stephens-Pisecco & Schultz, 2017). The WISC-V does not use the word Core (or supplemental) to describe its updated design (Raiford & Holdneck, 2014). The terminology describing the WISC V subtests have changed to Full Scale, Primary Index, Ancillary Index Scales, and Complementary Index Scales. There is a total of 10 tests that comprise the primary set of tests, however the first 7 tests yield an abundance of data that can inform selective testing. With the first seven tests of the WISC-V, a Full Scale Intelligence Quotient (FSIQ) score, General Ability Score (aggregate score of Gc-Gf, and Visual Reasoning), Verbal Comprehension Index (VCI), Fluid Reasoning Index (FRI), intra-cognitive variance, as well as some process scores can be obtained (Raiford & Holdneck, 2014). When using C-SEP model, it is recommended that follow-up cognitive testing be done after the language tests are administered in order to gain a deeper understanding of the nature

WJ IV Cognitive Battery (Schrank, McGrew,

of the disorder of basic psychological process (Stephens & Schultz, 2016).

Selective testing is always recommended in areas that low scores were obtained, for example if using the WISC-V and the Block Design subtest score was low, then additional testing is warranted and obtaining a visual-spatial index by giving another test would be appropriate. Another reason to use selective testing procedures may be to gain a deeper understanding of the relationship between a cognitive area and achievement area. In the case of a math problem-solving referral, it may be useful to not only obtain a fluid reasoning index score using a 2-test composite, but by selecting an additional test such as the Arithmetic subtest a Quantitative Reasoning Ancillary Score can be calculated using the published norms of the WISC V. This will help diagnostic precision and capture the "specificity" of "specific" learning disabilities.

A distinguishing feature of C-SEP is that it goes beyond a cognitive explanation to explain underachievement. The C-SEP model expands the comprehensiveness of the assessment of the SLD construct as defined in IDEA (2004) in particular, the italicized words in the federal definition are directly measured and considered: a specific learning disability as "a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. This is why the C-SEP model, as part of a comprehensive evaluation, assesses these areas.

Tests of expressive and receptive language measures are used thoughtfully and purposely in concert with other measures. The importance of language as a salient feature of SLD cannot be understated as language is a mediator between cognition and achievement and is critical in the development of executive function and self-regulation skills including academic self-regulation (e.g., re-reading, questioning) (Cragg & Nation, 2009; Singer & Bashir, 1999; Zakin, 2007). This data is also useful in analyzing peripheral instructional problems for individuals with SLD such as understanding classroom instructions or expressing themselves orally. These constructs are critical to understand teaching and learning in different environments. Table 2 illustrates the relationship between Cognitive & Lan-

With the inclusion of language measures in each assessment, the examiner can analyze

Table 2 Relationship between Tests of Cognition and Tests of Language

WJ IV Oral Language Tests (Core 4)	CHC /Ability	
Test 1: Picture Vocabulary Test 2: Oral Comprehension Test 3: Segmentation Test 4: Rapid Picture Naming	Comprehension-Knowledge (Gc)/Oral Language Comprehension-Knowledge (Gc)/Oral Language-Listening Comprehension Auditory Processing (Ga)/Phonetic Coding Processing Speed (Gs)/Speed of lexical Access CHC /Ability	
WIAT-III		
Listening Comprehension: a) Receptive Vocabulary b) Oral Discourse Comprehension	a) Comprehension-Knowledge (Gc)/(LS) Listening Ability b) Comprehension-Knowledge (Gc)/(LD) Language Development	
Oral Expression: a) Expressive Vocabulary b) Oral Word Fluency c) Sentence Repetition	a) Comprehension-Knowledge (Gc)/(KO) General Verbal Information b) Processing Speed (Gs)/Speed of lexical Access c) Auditory Memory Span (Gswm)	

using CHC theory, allowing multiple aspects of a construct to be interpreted in the context of the measures administered. For example, Coding is a core test of Processing Speed for the WISC V. If the subtest is administered and the student received a scaled score of 10 (average), before defaulting to another test of processing speed, the examiner should look at all other data collected that measures aspects of processing speed. If Oral Word Reading from the WIAT-III is administered, and the student receives a scaled score of 10 (average) on that subtest, then the examiner has two sources of formal data converging that support the same conclusion. Arguably, the Oral Word Fluency test is more cognitively complex and ecologically valid than the Coding test as the task demands processing speed, perceptual speed, and orthographic processing (Raiford & Holdnack, 2014). In addition to these formal measures, informal measures can be integrated in the analysis using the CHC lens. The examiner can review other sources of data, both formal and informal, that require processing speed such as Math Facts Fluency, Oral Reading fluency, Words Read per Minute on a CBM and make comparisons and inferences. In addition, the qualitative features such as response patterns and other qualitative data (e.g., teacher reports) can be used to make decisions on whether additional testing is needed in the area of processing speed. This type of logic should be applied to all cognitive constructs.

Interpretive Considerations

In addition to being more efficient, this approach to interpretation compels the examiner

to analyze data across domains instead of adhering to strict categories of cognitive processes. Since people use cognitive resources interdependently rather than in isolation, this interpretive step is more aligned with how people learn and think and reflects current test design. While C-SEP requires professional or clinical judgment, an important feature of C-SEP is using statistical support to inform that judgment. This approach considers the test publishers recommended interpretive considerations and the test's norms as the most valid support statistically and should be used to make highs stakes decisions for several reasons. The first of which is to strengthen the legal defensibility of decisions as we assure that evaluation materials used to assess a child are administered in accordance with any instructions provided by the producer of the assessments. We also assure that tests are used for the purposes for which the assessments or measures are valid and reliable [CFR 300.304 (c) (1)(iii)]. When using single batteries as the foundation of the evaluation, these assurances are easily accessible and documented if decisions are ever called into question. Test publishers report the psychometric properties of tests and use rigorous statistics such as multidimensional scaling and factor analysis to organize test content and composite score and index development (Kaufman & Kaufman, 2014; Schrank, McGrew, & Mather, 2014). Therefore, interpreting student results based on the actual norms of each is the most valid and legally defensible practice.

Another reason to use the publisher's computations is alignment to Texas policy. In order

to use a PSW model to identify SLD in Texas, the student: exhibits a pattern of strengths and weaknesses in performance, achievement, or both relative to age, grade-level standards, or intellectual ability, as indicated by significant variance among specific areas of cognitive function, such as working memory and verbal comprehension, or between specific areas of cognitive function and academic achievement [19 Texas Administrative Code, 89.1040(c)(9)(B)(ii)(II)]. Major tests (e.g., WJ-IV, WISC-V) used to measure cognitive processes provide the statistical support using actual norms for the examiner to show significant variance and also allow statistical analysis between specific areas of cognitive function and academic achievement. Additionally, the WJ IV scoring platform and the WISC-V scoring system will compute the example used in the regulations by using the Working Memory Index (WMI) and Verbal Comprehension Index (VCI) as well as "variance" between other areas of specific cognitive function.

In addition to the legal and policy support the interpretive considerations of the instruments publishers provide, the practical reason is to make more precise and well informed decisions. This applies not only to eligibility decisions but extend to instructional implications. It allows the examiner to use multiple lenses and multiple angles in which to guide decisions. Scores that exhibit significant variance will help the examiner with eligibility decisions while providing direction for further interpretation. For example, consider the following scenario: A student is failing to meet grade level standards in reading comprehension, shows a weakness in the working memory composite (SS 79),

Table 3 Core Tests used in C-SEP

Cognitive Tests using C-SEP	•	Achievement Tests and Standard Scores* C-SEP	
Wechsler Intelligence Scale for Children 5th Edition (WISC-V)	Standard Scores	Kauffman Test of Educational Achievement-3 (KTEA-3)	Standard Scores
Similarities (Gc and GfInduction)	5	Reading Comprehension	79
Vocabulary (Gc-Lexical Knowledge)	9	Reading Vocabulary	82
Verbal Comprehension Index (VCI)	84	Reading Understanding Composite	79
Block Design (Gv-Visualization and Gf)	10	KTEA-3 Language Tests	
Matrix Reasoning (GFInduction)	9	Listening Comprehension (Gc, Glr)	*
Figure Weights (Gf-Sequential reasoning)	8	Oral Expression (Gc)	*
Fluid Reasoning Index (FRI)	91	Associational Fluency (Glr)	*
Digit Span	7	Phonological Processing (Ga)	*
Coding Gs (speed and fluency)	10		
FSIQ	87		

^{*}Scores not available, tests are shown to illustrate test selection

and obtains a standard score of 78 on a normreferenced test of reading comprehension. This combination of scores could be used for eligibility and instructional recommendations as well as alert the examiner to follow-up on the impact the working memory has on teaching and learning and inform accommodation selection. When comparing the C-SEP approach to discrepancy SLD identification models, these interpretations are much deeper and go beyond the eligibility decision.

Distinguishing Features of Core-Selective

All methods of SLD identification (with the exception of RTI only approaches) have similar features and processes. It is generally agreed that a student with SLD is: a) not responding to appropriate traditional and supplemental instruction, b) exhibiting a disorder of basic psychological processes is evident and directly impacts the identified academic area of concern, c) exclusionary factors need to be considered, d) an assessment of SLD should be linked to instructional recommendations, and e) adhere to the Code of Federal Regulations (Flanagan & Alfonso, 2010). The following are important components of C-SEP:

1. Expressive (Oral Expression) and Receptive Language (Listening Comprehension) are formally tested and considered with every evaluation. These results are compared with cognitive measures, academic measures, and classroom functioning. This not only provides diagnostic information but also provides insight in to teaching and learning.

- 2. Statistical analysis is conducted using actual norms and software/tables from the publisher. Data can be viewed using multiple lenses. Data collected from other batteries are included in the assessment using integrated data analysis.
- 3. Statistical analysis informs decisionmaking and professional judgment instead of being the primary vehicle of the eligibility decision. Integrated data analysis including pattern seeking techniques are used to make eligibility decisions.
- 4. All tests administered including the core should be administered in a purposeful and deliberate manner. Testing should only occur to provide new or previously unknown information. Examiner time is dedicated to interpretation and integrating data instead of test administration.
- 5. Academic underachievement is determined using multiple sources. Standard scores obtained from norm-referenced testing are used to understand the relationship between cognitive and language constructs. Standard scores are never used as the sole determinate of a discrepancy or variance with a cognitive or language measure.
- 6. C-SEP requires professional judgment be utilized when making eligibility decisions. Discrepancy analysis is used to show variance and to identify and support patterns that emerged from the data.
- 7. Special education policy and assurances are strictly adhered to in order to provide the most comprehensive and appropriate evaluarion and outcome.

8. The imperfect ability to listen, think, speak are salient features of the SLD definition and are critical assessment areas when identifying a PSW and instructional implications.

Application of C-SEP

The authors will demonstrate the use of the C-SEP model, specifically regarding test selection procedures, using the data obtained from the WISC-V for a 4th grade student with reading comprehension problems from a recently published Texas case study (Flowers, Cheramie, & Black, 2016). The C-SEP model has two main features: Core and Selective. A core set of tests are always used and selective testing are sometimes/most likely used. An example of a time when only the core would be administered is when the core set of tests clearly answer or address the referral question. For example, a student with a WISC-V FSIQ standard score of less than 70 would indicate consideration for eligibility as Intellectually Disabled (ID), with commensurate adaptive behavior skills, not SLD. Another example would be average to above average scores obtained on each of the core set of cognitive, language, and achievement tests. For most referrals, these examples, albeit possible, would most likely be the exception. Using the WISC-V and KTEA-2 as the Core to answer, the following tests in Table 3 would be administered.

Selective testing occurs after the scores obtained on the core set of tests administered and interpreted through a lens of analysis that includes all the other data obtained. In this example, 2 batteries were used, and 13 tests

Table 4 Data from Core Tests		
Multiple Measures	Processes	
Records Review, Work Samples, Teacher information, etc.	Ecologically valid and authentic verbal reasoning data	
STARR Assessment System	Verbal Reasoning is scored and reported	
RTI (focused on Comprehension)	Progress Monitoring Data	
WISC Similarities Subtest	Formal Measure of crystallized intelligence (Gc), word knowledge, cognitive flexibility (Gf), auditory comprehension, long-term memory, associative and categorical thinking, distinction between nonessential and essential features, and verbal expression.	
KTEA Reading Comprehension Subtest	Formal Measure of Language Comprehension. Acquired knowledge (Gc) and achievement, word recognition and decoding. Reading fluency, simultaneous processing (Gf), verbal working memory, executive functions.	
KTEA Listening Comprehension Subtest	Formal Measure of Language Comprehension, discrimination of essential and nonessential information, acquired knowledge (Gc), sequential processing (Gf), executive functions.	

were administered. The tests used measure a wide range of CHC abilities and provide several interpretive options. In the area of reading comprehension, a composite score of 79 supports other data and sufficiently addresses the referral question. The language tests were used for demonstration purposes, but undoubtedly would have contributed to an explanation regarding the students reading problem. The 7 WISC-V tests administered are considered the Full Scale Level according to the publisher and yields several scores and options for analysis. With only 7 tests, a user can obtain a FSIQ, two primary indexes (FRI and VCI), along with a General Ability Score (GIA). In addition, each subtest can be analyzed at both the score and task demand level. The tests used in the above illustration represent the core of C-SEP.

Selective testing occurs after the core is administered and analyzed. The remainder of this illustration will be divided into a) additional tests most likely administered, b) additional tests possibly administered, and c) interpretations and professional judgment. It is important to note that the C-SEP selective test process is conducted in a purposeful, deliberate manner and is guided by thoughtful interpretation. While its design does reduce test administration time, its purpose is to use data and professional judgment to improve the depth of the evaluation beyond test scores.

One area of concern identified by the core tests was working memory due to the Digit

Span score being low. Using selective testing procedures, the evaluator should administer Picture Span for the following reasons: a) it's a memory test with different task demands, and b) this test comprises a Working Memory Index (WMI) and can be used in several calculations using the WISC-V scoring system. In this example, the index would have been 85 (95%, CI 79-94). Since three of the language tests administered measure verbal working memory (critical to reading comprehension), the decision to conduct additional testing would be made after analyzing those scores. The other area of concern was Similarities (Gc and Gf-Induction, SS=5). In a similar manner, the language assessment analysis would provide more information to guide selective testing in the area of verbal reasoning. Despite not having the language assessment scores for this sample case study, there is sufficient evidence that the student has deficits in verbal reasoning. In addition to the low score on the Similarities test, a low score was also obtained on similar tasks that require verbal reasoning; specifically, the Reading Comprehension Tests of the KTEA. According to the referral question, informal data (RTI data, state assessments), verbal reasoning tasks were indeed a concern. Table 4 will illustrate the data already collected that supports a verbal reasoning deficit (or basic psychological process) without the need to administer more tests.

Using integrated data analysis, an examiner can make a more informed decision about whether it is necessary to administer additional tests. The definitions of the formal measures were included to illustrate the similarities between these measures. If all of these indicators of verbal reasoning converge, then additional testing would be unnecessary. Consequently, based on the current case study and without having data from the KTEA Listening Comprehension Test, we have 4 indicators signifying a disorder in the basic psychological process of verbal reasoning. Therefore, for the example presented, working memory is the only additional construct that requires another formal test to be administered. All other selective or additional testing would occur after the core level of interpretation, however with this data only (no language assessment data) we have established a plausible explanation for the student's unexpected underachievement in reading comprehension: deficits in verbal reasoning and working memory.

Concluding Thoughts

The quest for the best method to identify SLD will no doubt continue as policy shifts, advances in the psychometrics of the tests are made, and research in the understanding of learning disabilities expand. C-SEP is presented as a third method of PSW that represents a shift in thinking about how evaluators use norm-referenced testing that will result in a more comprehensive, precise, and efficient way to identify SLD. C-SEP incorporates effective practices from other models and organizes them in a way that makes them more efficient, comprehensive, and robust. Specifically, within the C-SEP model, RTI data is fully integrated, discrepancy strategies are used to establish variance and explore relationships between constructs, and analysis is conducted through the use of CHC theory. Further, the application of C-SEP requires professional judgment along with professional development that includes language and learning disabilities, data integration strategies, technical manual interpretation, and test selection strategies.

With the ongoing advancements made in research in the areas of CHC theory and SLD identification, publishing companies are updating tests (e.g., WJ IV, WISC-V) to ensure a comprehensive, precise, and efficient means of conducting a comprehensive evaluation. This is an exciting time for evaluators, with appropriate training and the use of professional judgment, evaluators are better able to conduct a structured assessment using the core set of tests as the foundation of the comprehensive evaluation. Applying norm-referenced tests in a purposeful and deliberate manner, with the implementation of the C-SEP model, further testing is only required after careful and thoughtful analysis is made by converging the results of core tests with multiple sources of data to determine whether additional testing is necessary to identify a student's unique PSW.

References

- Cragg, L., & Nation, K. (2010). Language and the development of cognitive control. Topics in Cognitive Science, (2) 631-642.
- Code of Federal Regulations. Evaluation procedures. 300.304(c)(1)(iii). Retrieved from https://framework.esc18.net/ display/Webforms/ESC18-FW-Summary. aspx?FID=121&DT=G&LID=en
- Evans, J., Floyd, R., McGrew, K., & Leforgee, M. (2001). The relations between measures of Cattell-Horn-Carroll (CHC) cognitive abilities and reading achievement during childhood and adolescence. School Psychology Review, 31(2), 246-262.
- Every Student Succeeds Act (2017). S. 1177 -114th Congress: Retrieved from https://www. govtrack.us/congress/bills/114/s1177
- Flanagan, D. P., & Alfonso, V.C. (2010) Essentials of specific learning disability identification. New Jersey: John Wiley & Sons.
- Floyd, R., Meisinger, E., Gregg, N., & Keith, T. (2012). An explanation of reading comprehension across development using models from Cattell-Horn-Carroll theory: Support for

- integrative models of reading. Psychology in the Schools, 49(8), 725-743.
- Floyd, R., Evans, J., & McGrew, K. (2003). Relations between measures of Cattell-Horn-Carroll (CHC) cognitive abilities and mathematics achievement across school-age years. Psychology in the Schools, 40(2), 155-171.
- Flanagan, D., Fiorello, C., & Ortiz, S. (2010). Enhancing practice through application of Cattell-Horn-Carroll theory and research: A "third method" approach to specific learning disability identification. Psychology in the Schools, 47(7), 739-760.
- Flowers, A., Cheramie, G., & Black, D. (2016). Using the WISC-V for SLD identification: A case study. The DiaLog, 45(1), 4-11.
- Individuals with Disabilities Education Improvement Act, H.R. 1350, 108th Congress (2004).
- Jaffe, L.E. (2009). Development, interpretation, and application of the W score and the relative proficiency index. Assessment Service Bulletin 11. Rolling Meadows, Illinois: Riverside Publishing.
- Kaufman, A. S., & Kaufman, N. L. (2014). Technical & interpretive manual: Kaufman test of educational achievement, third edition. Bloomington, Minnesota: Pearson.
- Kwiatek, R., & Schultz, E. K. (2014). Using informal assessment data to support the diagnosis of specific learning disability. The DiaLog, 43(1), 12-15.
- Mather, N., & Wendling, B. (2015). Essentials of WJ IV tests of achievement. New Jersey: John Wiley & Sons.
- McGill, R. J., Styck, K. M., Palomares, R., & Hass, M. R. (2016). Critical issues in specific learning disability identification: What we need to know about the PSW model. Learning Disability Quarterly, 39 (3), 159-170.
- McGrew, K. S., LaForte, E. M., & Shrank, F. A. (2014). Technical manual: Woodcock-Johnson IV. Rolling Meadows, Illinois: Houghton Mifflin Harcourt/Riverside.
- McGrew, K., & Wendling, B. (2010). Cattell-Horn-Carroll cognitive-achievement relations: What we have learned from the past 20 years of research. Psychology in the Schools, 47(7), 651-675.
- Newton, J., & McGrew, K. (2010). Introduction to the special issue: Current research in Cattell-Horn-Carroll-Based assessment. Psychology in the Schools, 47(7), 621-634.
- Raiford, S. E., Drozdick, L., Zhang, O., & Zhou, X. (2015) WISC-V technical report #1: Expanded index scores. Retrieved from http://images. pearsonclinical.com/images/assets/WISC-V/ WISC-VTechReport1_FNL_v3.pdf

- Raiford, S. E., & Holdnack, J. A. (2014). WISC-V technical and interpretive manual. San Antonio, Texas: Pearson.
- Raiford, S. E., & Holdnack, J. A. (2014). WISC-V technical and interpretive manual supplement. Retrieved from http://downloads.pearsonclinical.com/images/assets/wisc-v/wisc-v-techmanual-supplement.pdf.
- Schrank, F. (2016). The CSEP model for PSW analysis. WJ Forward, 3, 7-12.
- Schrank, F., Decker, S., & Garruto, J. (2016). Essentials of WJ IV tests of cognitive abilities assessment. Hoboken, New Jersey: John Wiley & Sons.
- Schrank, F., McGrew, K. S., & Mather, N. (2014). Woodcock-Johnson IV tests of cognitive abilities. Rolling Meadows, IL. Riverside.
- Schrank, F., Stephens-Pisecco, T., & Schultz, E. (2017). The WJ IV core-selective evaluation process for identification of a specific learning disability. Assessment Services Bulletin 8. Boston, Massachusetts: Houghton Mifflin Harcourt.
- Schultz, E. K., Simpson, C. G., & Lynch, S. (2012). Specific learning disability: What constitutes a pattern of strength and weaknesses. Learning Disabilities: A Multidisciplinary Journal, 18(2), 87-97.
- Schultz, E., & Stephens, T. (2015). Core-Selective evaluation process: An efficient & comprehensive approach to identifying students with SLD using the WJ IV. The DiaLog, 44(2), 5-12.
- Stephens, T., & Schultz, E. (2015). Comprehensive, efficient, & precise: Using the coreselective evaluation process (C-SEP) with the WJ IV battery of tests to identify SLD [Webinar]. Retrieved from http://www.hmhco.com/ classroom/evaluate-and-sample/webinars/ professional-webinars
- Singer, B. D., & Bashier, A. S. (1999). What are executive functions and self-regulation and what do they have to do with language-learning disorders? Language, Speech, and Hearing Services in Schools, 30, 265-273.
- Zakin, A. (2007). Metacognition and the use of inner speech in children's thinking: A tool teachers can use. Journal of Education and Human Development, 1(2), 1-10.