

# Feifer Assessment of Reading™

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# **Interpretive Report**

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Client Information

Client name: Sample Client

Client ID: LD

Test date: 05/12/2017

Date of birth: 11/10/2009

Age: 7:6

Grade/Education: 2nd

Gender: Female

Examiner: Dr Williams

This report is intended for use by qualified professionals only and is not to be shared with the student or any other unqualified persons.

# **Overview of This Report**

The Feifer Assessment of Reading (FAR) is an individually administered measure of reading ability normed for students in prekindergarten through college. The FAR contains individual tests of reading skills which are combined to form a Phonological Index (PI), a Fluency Index (FI), and a Comprehension Index (CI). The subtests which compose the PI assess phonological processing and decoding skills of words in isolation as well as in context. The FI is comprised of subtests that assess visual perception and orthographic processing of letters and words, as well as fluidity in pronouncing phonologically-irregular words. The CI contains subtests designed to assess the underlying factors involved in deriving meaning from print. The Mixed Index (MI), calculated by combining the PI and the FI, assesses for deficits in both phonological processing and orthographic processing skills. The FAR Total Index (TI), calculated by combining the PI, FI, and CI subtests, provides the most comprehensive and reliable assessment of overall reading proficiency. Each index score is expressed as a grade-corrected standard score scaled to a mean of 100 and a standard deviation of 15.

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FAR Score Summary					
Subtest	Raw score	Standard score	Index standard score	Percentile rank	z score
Phonemic Awareness (PA)	43	70		2	-2.00
Nonsense Word Decoding (NWD)	0	+75		5	-1.67
Isolated Word Reading Fluency (ISO)	12	+70		2	-2.00
Oral Reading Fluency (ORF)	0.36	+70		2	-2.00
Positioning Sounds (PS)	25	+95		37	-0.33
Phonologic	al Index (PI)	=380	72	3	
Rapid Automatic Naming (RAN)	68	100		50	0.00
Verbal Fluency (VF)	12	+87		19	-0.87
Visual Perception (VP)	12	+106		66	0.40
Irregular Word Reading Fluency (IRR)	13	+95		37	-0.33
Orthographical Processing (OP)	4	+76		5	-1.60
Fluence	cy Index (FI)	=464	90	25	
PI + FI = Mixed	d Index (MI)	844	78	7	
Semantic Concepts (SC)	26	109		73	0.60
Word Recall (WR)	9	+99		47	-0.07
Print Knowledge (PK)	n/a	+n/a		n/a	n/a
Morphological Processing (MP)	7	+100		50	0.00
Silent Reading Fluency: Comprehension (SRF-C)	4	+83		13	-1.13
Comprehensio	n Index (CI)	=391	97	42	
PI + FI + CI = FAR Total Index (TI)		1235	83	13	

Note. "---" indicates that the value could not be calculated due to missing data. "n/a" indicates the value could not be calculated because the student's grade falls outside the administration grade range for this subtest.

aSRF-R standard score is not included in the calculation of the FAR Total Index (TI).

80

0.70

Silent Reading Fluency: Rate (SRF-R)<sup>a</sup>

9

-1.33

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## **Index Score Profile**



# **Subtest Score Profile**

Subtest	Standard score	
		50 60 70 80 90 100 110 120 130 140 150
Phonemic Awareness	70	<u> </u>
Nonsense Word Decoding	75	$- \cdot \cdot$
Isolated Word Reading Fluency	70	$- + \cdots + $
Oral Reading Fluency	70	$- + \cdots + $
Positioning Sounds	95	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Rapid Automatic Naming	100	<u> </u>
Verbal Fluency	87	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Visual Perception	106	<u> </u>
Irregular Word Reading Fluency	95	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Orthographical Processing	76	
Semantic Concepts	109	[
Word Recall	99	
Print Knowledge		<u> </u>
Morphological Processing	100	<u> </u>
Silent Reading Fluency: Comprehension	83 on	
Silent Reading Fluency: Rate	80	<u> </u>
		50 60 70 80 90 100 110 120 130 140 150

# **Report Summary**

Sample Client, a student in second grade, was administered the FAR on 05/12/2017. Sample Client's TI score is 83, which is in the Below Average range and is in the 13<sup>th</sup> percentile compared to her same-grade peers. Her MI score of 78 falls in the Moderately Below Average range and ranks in the 7<sup>th</sup> percentile compared to peers in the same grade.

#### **Phonological Index (PI)**

Sample Client got a score of 72 on the PI, which falls in the Moderately Below Average range and ranks in the 3<sup>rd</sup> percentile compared to her same-grade peers. Sample Client scored in the Moderately Below Average range on the following: Phonemic Awareness (70), Nonsense Word Decoding (75), Isolated Word Reading Fluency (70) and Oral Reading Fluency (70). Sample Client scored in the Average range on the following: Positioning Sounds (95).

## Fluency Index (FI)

Sample Client's FI score is 90, which is in the Average range and, compared to her same-grade peers, is in the 25<sup>th</sup> percentile. Sample Client scored in the Moderately Below Average range on the following: Orthographical Processing (76). Sample Client scored in the Below Average range on the following: Verbal Fluency (87). Sample Client scored in the Average range on the following: Rapid Automatic Naming (100), Visual Perception (106) and Irregular Word Reading Fluency (95).

# **Comprehension Index (CI)**

Sample Client's CI score is 97, which is in the Average range and is in the 42<sup>nd</sup> percentile compared to her same-grade peers. Sample Client scored in the Below Average range on the following: Silent Reading Fluency: Comprehension (83). Sample Client scored in the Average range on the following: Semantic Concepts (109), Word Recall (99) and Morphological Processing (100).

#### Intervention

According to the FAR, Sample Client presents with core overall reading skills below age- and grade-level expectations. There was evidence of global reading delays, though she does not necessarily present with a specific subtype of dyslexia. Given her constellation of scores, Sample Client has excellent potential to make significant strides in reading provided she has access to specific targeted reading intervention programs.

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# **FAR Total Index (TI) Interpretation**

The FAR Total Index (TI) is the most reliable and valid representation of a student's overall reading capabilities in the battery and is the best predictor of overall reading proficiency. This score is a compilation of a number of very important reading-related processes including phonological skill development, orthographical processing, vocabulary development, reading fluency, and text comprehension skills.

Sample Client's TI score is 83. This indicates that her reading and reading-related processes are in the Below Average range and that Sample Client is functioning better than only 13% of her peers in the same grade. A TI score in the Below Average range indicates this student's overall reading skills are not as well developed as grade-level peers. There is sufficient evidence to suspect a reading weakness or disability is evident, particularly when this student is engaged in reading-related endeavors in classroom learning situations. Without specific reading interventions in place, this student will most likely have difficulty meeting the academic demands and rigor of the curriculum.

# **Index Interpretations**

# Phonological Index (PI) Interpretation

The Phonological Index (PI) is related to a student's ability to independently sound out unfamiliar words in print and to sequence multiple sounds together in order to accurately recognize a specific word. It is made up of several subtests measuring phonological processing and word-decoding skills.

Sample Client's PI score is 72. This indicates that her phonological processes are in the Moderately Below Average range and that she is functioning better than only 3% of her peers in the same grade. Students who score within the Moderately Below Average range have weaker skills in decoding both familiar and unfamiliar words in print. Further, this score suggests that her phonological skills are an absolute weakness (PI < 85). In other words, compared to grade-level peers, this score is more than one standard deviation below the mean score from the normative sample. Students with deficits in phonological processing in this range are at risk for developing a reading disorder consistent with dysphonetic dyslexia. The hallmark feature of dysphonetic dyslexia includes an inability to bridge letters and sounds successfully and a tendency to over-rely on the visual characteristics of the printed word form. Consequently, these readers have a tendency to look at the first letter and guess on words rather than

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sequence multiple sounds together to cue word-recognition skills. Often, beginning readers struggle to sound out words, since letter sounds are not necessarily perceived as unique entities but instead are perceived as overlapping bursts of sounds that become difficult to decipher.

#### Fluency Index (FI) Interpretation

The Fluency Index (FI) is related to a student's overall reading speed and rapid recognition of words in print. It is made up of several subtests measuring orthographical processing and speed or automaticity of processing.

Sample Client's FI score is 90. Her fluency and related processes are in the Average range and in the 25<sup>th</sup> percentile. This suggests Sample Client is functioning about the same as peers in the same grade. Students who score within the Average range on the FI often have adequate skills in accurately recognizing letters, as well as reading phonologically irregular words that do not follow a consistent grapheme-to-phoneme pattern. The ability to rapidly identify a printed word is often dependent upon well-developed orthographic processing skills, stemming, in part, from text familiarity.

#### Mixed Index (MI) Interpretation

The Mixed Index (MI) is a combination of the subtests on the PI and FI. Therefore, it represents a blending of both efficient phonological and orthographical skills to read both familiar and unfamiliar words in print rapidly and automatically.

Sample Client's MI score is 78. This indicates that her reading and reading-related processes are in the Moderately Below Average range and that she is functioning better than only 7% of her peers in the same grade. However, the PI and FI are statistically discrepant at the p < .01. Therefore, no additional interpretation above and beyond those listed for the PI and FI indexes are offered.

# Comprehension Index (CI) Interpretation

The Comprehension Index (CI) is a measure of reading comprehension skills. Specific cognitive constructs underlying reading comprehension include executive functioning skills, which refers to the strategies a student uses to self-organize verbal information to facilitate later retrieval; working memory, which refers to the memory capacity of a

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reader to hold and manipulate current information with previously read material; and language foundational skills, which refers to a student's general vocabulary development.

Sample Client's CI score is 97. Her reading comprehension and related processes are in the Average range and in the 42<sup>nd</sup> percentile. This suggests Sample Client is functioning about the same as peers in the same grade. The ability to derive meaning from print is the hallmark feature of proficient reading skills. Scores within the Average range on the CI often suggest good skills in deriving meaning from printed material. These students generally have adequate vocabulary development skills, both in the breadth and depth of words they are familiar with. In addition, the ability to self-organize information to recall both detailed as well as inferential information from a passage is intact. Lastly, top-down executive attention is sufficient when reading silently, as there is little need to re-read material in order to comprehend the text.

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# **Index Discrepancies**

FAR Total Index							
Standard Score: 83							
Index Standard score Absolute Significance Base rate							
Phonological Index (PI)	72	11	.01	≤15%			
Fluency Index (FI)	90	7	.10	>15%			
Mixed Index (MI)	78	5	.15	>15%			
Comprehension Index (CI)	97	14	.01	≤15%			

Phonological Index							
Standard Score: 72							
Index Standard score Absolute Significance Base rate							
Fluency Index (FI)	90	18	.01	≤15%			
Mixed Index (MI)	78	6	.10	>15%			
Comprehension Index (CI) 97 25 .01 ≤10%							
FAR Total Index (TI)	83	11	.01	≤15%			

Fluency Index							
Standard Score: 90							
Absolute Significance Index Standard score difference level Base rate							
Phonological Index (PI)	72	18	.01	≤15%			
Mixed Index (MI)	78	12	.01	≤10%			
Comprehension Index (CI)	97	7	ns	>15%			
FAR Total Index (TI)	83	7	.10	>15%			

Mixed Index							
Standard Score: 78							
Index Standard score Absolute Significance Base rate							
Phonological Index (PI)	72	6	.10	>15%			
Fluency Index (FI)	90	12	.01	≤10%			
Comprehension Index (CI)	97	19	.01	≤15%			
FAR Total Index (TI)	83	5	.15	>15%			

Comprehension Index							
Standard Score: 97							
Index Standard score Absolute Significance Base rate							
Phonological Index (PI)	72	25	.01	≤10%			
Fluency Index (FI)	90	7	ns	>15%			
Mixed Index (MI) 78 19 .01 ≤15%							
FAR Total Index (TI)	83	14	.01	≤15%			

Note. "---" indicates that the value could not be calculated due to missing data.

Discrepancies in bold are statistically significant at p < .05

# **FAR Total Index (TI) Discrepancy Interpretations**

#### Total Index (TI) vs. Phonological Index (PI)

Sample Client's TI is in the Below Average range and her PI is in the Moderately Below Average range. There is a statistically significant discrepancy between these two scores (p<.01), the prevalence of this discrepancy being  $\leq$ 15%. This implies a global difficulty in numerous areas of the reading process including difficulty utilizing phonological cues to identify words in print as well as underdeveloped semantic and orthographic processing skills to recognize words in print. In summary, Sample Client's overall constellation of reading scores suggests below-grade level total reading performance.

## Total Index (TI) vs. Fluency Index (FI)

Sample Client's TI is in the Below Average range and her FI is in the Average range. There is a statistically significant discrepancy between these two scores (p < .10), the prevalence of this discrepancy being >15%. However, the difference in scores most likely has little impact on Sample Client's overall reading skills. Sample Client is expected to have good ability to use orthographic cues to identify phonologically irregular words in print. Despite having adequate orthographic processing skills, Sample Client may have underdeveloped semantic and phonological processing skills suggesting difficulty accurately decoding words as well as inconsistencies with overall text comprehension skills. In summary, this type of reading profile is suggestive of a student attempting to memorize individual words by the visual shape and contour of the printed word form.

## Total Index (TI) vs. Mixed Index (MI)

Sample Client's TI is in the Below Average range and her MI is in the Moderately Below Average range. There is a statistically significant discrepancy between these two scores (p < .15), the prevalence of this discrepancy being >15%. However, the PI and FI (which comprise the MI) are statistically discrepant at the p<.01. Therefore, no additional interpretation above and beyond those listed for the PI and FI indexes are offered.

# Total Index (TI) vs. Comprehension Index (CI)

Sample Client's TI is in the Below Average range and her CI is in the Average range. There is a statistically significant discrepancy between these two scores (p < .01), the prevalence of this discrepancy being  $\leq 15\%$ . However, the difference in scores most likely has little impact on Sample Client's overall reading skills. Despite having

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below-average reading mechanics, Sample Client possesses a good ability to utilize semantic cues to help derive meaning from print. This type of reading profile is often seen among students with good language development and executive functioning skills to facilitate the recall of verbal information.

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# **Index Discrepancy Interpretations**

## Phonological Index (PI) vs. Fluency Index (FI)

Sample Client's PI is in the Moderately Below Average range and her FI is in the Average range. There is a statistically significant discrepancy between these two scores (p < .01), the prevalence of this discrepancy being  $\leq 15\%$ . This represents a real clinical difference between Sample Client's performance on the PI and FI with a relative weakness in the PI and a relative strength in the FI. Sample Client is expected to have inconsistent word identification skills and may over-rely on orthographic and semantic cues to identify words in print. Sample Client may excel when identifying familiar phonologically irregular words but struggle when applying decoding skills to unfamiliar words in print. In summary, Sample Client's weak PI in comparison to her strong FI may be suggestive of dysphonetic dyslexia.

#### Phonological Index (PI) vs. Mixed Index (MI)

Sample Client's PI is in the Moderately Below Average range and her MI is in the Moderately Below Average range. There is a statistically significant discrepancy between these two scores (p < .10), and the prevalence of this discrepancy is >15%. However, the PI and FI (which comprise the MI) are statistically discrepant at the p<.01. Therefore, no additional interpretation above and beyond those listed for the PI and FI indexes are offered.

# Phonological Index (PI) vs. Comprehension Index (CI)

Sample Client's PI is in the Moderately Below Average range and her CI is in the Average range. There is a statistically significant discrepancy between these two scores (*p* < .01), the prevalence of this discrepancy being ≤10%. This represents a real clinical difference between Sample Client's performance on the PI with a relative weakness in the PI and a relative strength in the CI. Sample Client is expected to have inconsistent word identification skills and difficulty using decoding skills to identify words in print. However, Sample Client performed adequately when deriving meaning from print and may utilize both orthographic and semantic cues, along with good strategic organization of verbal information, to facilitate passage-comprehension skills. In addition, Sample Client also scored in the Average range on the FI. This suggests that Sample Client may have difficulty using decoding skills to identify words in print, though she excels in utilizing both orthographic and semantic cues along with good strategic organization of verbal information to facilitate passage comprehension skills. In summary, Sample Client's weak PI in comparison to her strong CI may be suggestive of dysphonetic dyslexia.

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#### Fluency Index (FI) vs. Mixed Index (MI)

Sample Client's FI is in the Average range and her MI is in the Moderately Below Average range. There is a statistically significant discrepancy between these two scores (p < .01), the prevalence of this discrepancy being  $\leq 10\%$ . However, the PI and FI (which comprise the MI) are statistically discrepant at the p<.01. Therefore, no additional interpretation above and beyond those listed for the PI and FI indexes are offered.

#### Fluency Index (FI) vs. Comprehension Index (CI)

The discrepancy between the FI and the CI is not statistically significant.

#### Mixed Index (MI) vs. Comprehension Index (CI)

Sample Client's MI is in the Moderately Below Average range and her CI is in the Average range. There is a statistically significant discrepancy between these two scores (p < .01), the prevalence of this discrepancy being  $\leq 15\%$ . However, the PI and FI (which comprise the MI) are statistically discrepant at the p<.01. Therefore, no additional interpretation above and beyond those listed for the PI and FI indexes are offered.

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# **Subtest Interpretations**

#### **Phonological Index (PI)**

#### **Phonemic Awareness (PA)**

The PA subtest is a series of four tasks arranged in a hierarchy of increasingly more sophisticated phonemic processing skills. These four interrelated tasks are designed to measure the ability to hear and decipher specific sound boundaries in words. This subtest is comprised of tasks that tap the ability to categorize the acoustical properties of words, understand the sequential arrangement of sound properties embedded within words, deconstruct words into natural syllable breaks, and spatially manipulate sounds in words.

Sample Client's PA score is 70. This indicates that her phonemic skills are in the Moderately Below Average range and that she is functioning better than only 2% of peers in the same grade. Further, this score is more than one standard deviation below the normative sample's mean score, which suggests that Sample Client's phonemic skills are an absolute weakness. Scores within the Moderately Below Average range on the PA subtest suggest difficulty with sound recognition and awareness skills and inconsistencies deciphering individual acoustical properties in words. There may also be limitations with phonological working memory skills, since these students often have difficulty categorizing and manipulating sounds within words. Because the PS score is significantly higher than the PA score (p < .01), Sample Client may have underlying phonological working memory deficits, and she most likely benefits from the organizational structure and visual cueing provided in the PS subtest to hold and maintain the temporal ordering of sounds in words.

## **Nonsense Word Decoding (NWD)**

The NWD subtest requires the student to decode a series of individual nonsense words presented in order of increasing difficulty. Since nonsense words are essentially a series of made-up or invented words and completely unfamiliar to students, orthographic strategies that rely on visual recognition and cuing often have little value. Therefore, students have to rely primarily upon their decoding skills to identify a nonsense word.

Sample Client's NWD score is 75. This indicates that her decoding skills are in the Moderately Below Average range and that she is functioning better than only 5% of

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peers in the same grade. Further, this score is more than one standard deviation below the normative sample's mean score, which suggests that Sample Client's decoding skills are an absolute weakness. Scores in the Moderately Below Average range on the NWD subtest suggest difficulty utilizing "bottom-up" or rule-based strategies to sequentially decode phonemes within novel words. Such scores often indicate that the student has weaker decoding skills, and therefore struggles to transfer these skills to the printed word form. An inability to develop adequate grapheme-phoneme connections leads to marked inconsistencies when decoding individual words in print, and often leads to inaccurate spelling skills. Because the NWD score is significantly lower than the IRR score (p < .01), the student may over-rely on "top-down" or perceptual features of words to cue word-recognition skills and guess on words based upon the initial letter.

#### Isolated Word Reading Fluency (ISO)

The ISO subtest requires the student to read a list of words that begins with grade-level text presented in order of increasing difficulty. This is a 60-second test of rapid and automatic word-recognition skills for words that are presented out of context. Because contextual cues cannot be utilized, the student must use decoding automaticity skills for familiar words. Once again, recent research (de Oliveira et al., 2014; Kirby & Savage, 2008) has expanded the notion that decoding skills also includes rapid and accurate word recognition. Therefore, the ISO subtest extends the notion of decoding by incorporating the element of time to assess automaticity of decoding skills independent of context.

Sample Client's ISO score is 70. This indicates that her decoding automaticity skills are in the Moderately Below Average range and that she is functioning better than only 2% of peers in the same grade. Further, this score is more than one standard deviation below the normative sample's mean score, which suggests that Sample Client's decoding automaticity skills are an absolute weakness. Scores within the Moderately Below Average range on the ISO subtest suggest difficulty in automatic word-recognition skills for words that primarily follow a consistent grapheme-phoneme decoding pattern. Such scores indicate that the student most likely reads by guessing on words or perhaps has over-relied on memorization of words based upon text orthography. Because the ISO score is significantly lower than the IRR score (p < .01), there may be a tendency to utilize a more orthographical or "top-down" approach to recognize words in print.

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#### **Oral Reading Fluency (ORF)**

The ORF subtest requires the student to read a passage derived from the same words used from the ISO subtest. This measure is designed to determine how well students can automatically decode words that are embedded in the context of a story. Because this is a timed 60-second subtest, a student's overall oral reading rate can also be obtained and compared with the rate score for the Silent Reading Fluency subtest. Once again, recent research (de Oliveira et al., 2014; Kirby & Savage, 2008) has expanded the notion that decoding skills also include rapid and accurate word recognition. Therefore, the ORF subtest extends the notion of decoding by incorporating the element of time to assess automaticity of decoding targeted words within a specific context.

Sample Client's ORF score is 70. This indicates that her contextual-decoding skills are in the Moderately Below Average range and that she is functioning better than only 2% of peers in the same grade. Further, this score is more than one standard deviation below the normative sample's mean score, which suggests that Sample Client's contextual-decoding skills are an absolute weakness. Scores in the Moderately Below Average range on the ORF subtest suggest difficulty with rapid and automatic word-recognition skills for contextual-based passages.

#### **Positioning Sounds (PS)**

The PS subtest is a phonemic-localization task that requires the student to determine the missing sound(s) in an incomplete word printed under a picture. This subtest is a measure of the temporal ordering of auditory stimulus patterns using a visual cue to provide structure. Understanding of the temporal ordering and categorical representation of sounds is a precursor to developing the ability to decode words in print.

Sample Client's PS score is 95. This indicates that her phonemic localization skills are in the Average range and that she is functioning better than 37% of peers in the same grade. Scores within the Average range on the PS subtest suggest a good ability to localize and identify isolated sounds within the beginning, middle, or ending portions of the printed word form. Because the PS score is significantly higher than the PA score (p < .01), the student may have underlying phonological working memory deficits and would most likely benefit from the organizational structure and visual cueing provided in the PS subtest to hold in memory and maintain the temporal ordering of sounds in words.

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## Fluency Index (FI)

#### **Rapid Automatic Naming (RAN)**

The RAN subtest is a series of timed tasks requiring the student to read as many different objects or individual letters as possible from an array in 30 seconds. Effective rapid naming requires the coordinated efforts of numerous cognitive operations including attention skills, accurate retrieval skills, precise visual tracking, and speed of information processing. The ability to assign a verbal tag to a visual stimulus quickly can be a powerful predictor of reading skills, especially when the stimuli consists of letters rather than just familiar objects.

Sample Client's RAN score is 100. This indicates that her rapid naming skills are in the Average range and that she is functioning better than 50% of peers in the same grade. Scores in the Average range on the RAN subtest suggest good perceptual speed when using orthographic cues to recognize letters as well as good attention and accurate visual-scanning skills to targeted stimuli.

#### **Verbal Fluency (VF)**

The VF subtest requires the student to retrieve words rapidly from a particular semantic category, as well as to retrieve words that start with a specific letter rapidly in 60 seconds. Both tasks essentially measure retrieval speed from long-term memory using a language-based cue. This subtest helps to identify students who have difficulty retrieving words that start with a particular letter, which can indicate their preferred mode of accessing lexical knowledge.

Sample Client's VF score is 87. This indicates that her rapid word-retrieval skills are in the Below Average range and that she is functioning better than only 19% of peers in the same grade. Scores in the Below Average range on the VF subtest suggest difficulty in using letter cues or semantic cues to access and retrieve linguistic information. Often times, students with reading disabilities have more difficulty using letter cues to access words from their lexicon. In some cases, lower scores may also suggest inconsistent motivation and effort to the task at hand as well as limited language-development skills.

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#### **Visual Perception (VP)**

The VP subtest requires the student to identify letters printed backward from an array of letters or words in 30 seconds. This subtest is a measure of orthographic perception, a vital initial step toward establishing an accurate cognitive template of the printed word form. It is common for beginning readers to make letter reversals when learning the alphabetic code, though persistent difficulty with letter reversals are often a byproduct of the dominant language hemisphere's inability to take command of the reading process. Difficulty with the VP subtest, therefore, can be indicative of dyslexia.

Sample Client's VP score is 106. This indicates that her visual-perception skills are in the Average range and that she is functioning better than 66% of peers in the same grade. Scores within the Average range on the VP suggest good orthographic-perceptual skills and adequate exposure to text-based material. Stronger scores also indicate good task motivation and accurate text attention. Because the VP score is significantly higher than the OP score (p < .01), difficulties with text orthography are most likely related to poor orthographic working memory skills as opposed to accuracy of text perception.

#### **Irregular Word Reading Fluency (IRR)**

The IRR subtest requires the student to read a list of phonologically irregular words presented in order of increasing difficulty within a 60-second time limit. This subtest is a measure of text familiarity and ability to use the visual shape, contour, and uniqueness of the alphabetic code to recognize words in print. Stronger orthographic-processing skills are often needed to recognize an entire printed word form in order to read phonologically irregular words.

Sample Client's IRR score is 95. This indicates that her text-recognition skills are in the Average range and that she is functioning better than 37% of peers in the same grade. Scores within the Average range on the IRR subtest suggest good automatic recognition of words that do not follow a consistent grapheme-phoneme pattern. Because the IRR score is significantly higher than the ISO score (p < .01), there may be an over-reliance on text familiarity and orthographic processing cues used to recognize words. In other words, the student may try to memorize words in an attempt to mask an underlying deficit with phonological processing and decoding skills. Good readers tend to simultaneously utilize both a "top-down" (text orthography) as well as "bottom-up" (phonological processing) approach to recognize words in print.

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#### **Orthographical Processing (OP)**

The OP subtest requires the student to recall the letter or group of letters that are in a target word after being presented with the word for 1 second. This task measures the ability to hold and retain a visual-spatial image of the printed word form in order to determine which group of letters are in the word. This is an important cognitive attribute to reference when words do not follow a consistent grapheme-phoneme pattern, so instead, the visual contour and shaping of the entire word form becomes paramount for text recognition.

Sample Client's OP score is 76. This indicates that her text-orthography skills are in the Moderately Below Average range and that she is functioning better than only 5% of peers in the same grade. Further, this score is more than one standard deviation below the normative sample's mean score, which suggests that Sample Client's text orthography skills are an absolute weakness. Scores within the Moderately Below Average range on the OP subtest suggest weaker visual working memory skills for the printed word form as well as inconsistencies with spelling skills. In addition, weaker orthographic processing often impedes the ability to read phonetically irregular words as well as develop automaticity and fluency in the reading process. Because the OP score is significantly lower than the VP score (p < .01), dysfluencies with reading are most likely due to poor orthographic working memory skills as opposed to accuracy with text perception, interfering with the ability to recognize the printed word form rapidly.

# Comprehension Index (CI)

## Semantic Concepts (SC)

The SC subtest is a multiple-choice test requiring the student to select a word that is either similar in meaning (synonym) or opposite in meaning (antonym) to a target word. Students with poor reading comprehension skills often have delays with vocabulary development and semantic processing. These students may have only a surface understanding of the meaning of words, and difficulty may arise from comprehending the meaning of the word in various contexts. Comprehension and text vocabulary issues tend to be paramount in later grades, especially when students are required to respond to more inferential or abstract information embedded in context.

Sample Client's SC score is 109. This indicates that her general vocabulary skills are

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in the Average range and that she is functioning better than 73% of peers in the same grade. Scores within the Average range on the SC subtest suggest good overall language development and a wide breadth of vocabulary knowledge. Students with good lexical knowledge often use semantic cues to assist with word-identification skills, since there is a tendency to anticipate what word may be next when reading words in context. Because the SC score is significantly higher than the SRF-C score (p < .01), deficits with reading comprehension are most likely due to poor working memory and executive functioning skills that hinder the ability to self-organize information and not due to deficits with language comprehension skills.

#### Word Recall (WR)

The WR subtest requires the student to repeat a list of words that are presented at a rate of one word per second. A second trial of the exact same words are presented and requires the student to recall only selected words from a particular category. All of the words can be organized into three semantic categories: musical instruments, fruits and vegetables, and bicycle-related words. This test measures the ability to self-organize verbal information into appropriate semantic baskets to facilitate retrieval skills, which is an important attribute needed for the development of proficient reading comprehension skills.

Sample Client's WR score is 99. This indicates that her language executive functioning skills are in the Average range and that she is functioning better than 47% of peers in the same grade. Scores within the Average range on the WR subtest suggest good verbal working memory skills and the ability to slot and self-organize verbal information in order to facilitate more effective recall. There is often equal proficiency between the two trials, since students also perform well during the second trial when the examiner provides the organizational principles or structure to cue word retrieval. If scores on the second trial are much higher than scores on the first trial requiring free recall, then the student may have difficulty imposing her own internal structure and organizational framework when presented with verbal information. Additionally, there may be attention issues hindering the ability to encode the initial presentation of information.

#### Morphological Processing (MP)

The MP subtest is a multiple-choice test requiring the student to choose the morpheme that best completes an incomplete target word. Knowledge of individual word

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meanings represents overall lexical or general vocabulary development, but knowledge of morphology represents an even higher type of semantic skill. Knowledge about morphological processing, which implies an acute awareness of the rules used to form words, contributes to individual differences in reading that cannot be readily explained by differences in orthographic and phonological processing.

Sample Client's MP score is 100. This indicates that her morphological abilities are in the Average range and that she is functioning better than 50% of peers in the same grade. Scores within the Average range on the MP subtest suggest good linguistic development skills and ability to use semantic or "top-down" cueing to facilitate word-recognition skills.

#### **Silent Reading Fluency: Comprehension (SRF-C)**

The SRF-C is a timed subtest that requires the student to read a passage silently and answer a series of literal and inferential questions about the story. The story is removed prior to responding to individual questions, which places a great deal of importance on attention and working memory during the reading process. In addition, there is a heavy burden placed on executive functioning skills, since this task requires the student to plan and organize targeted information to facilitate later retrieval. After the first passage and corresponding questions, a second passage is similarly presented and followed by questions related to it.

Sample Client's SRF-C score is 83. This indicates that her comprehension skills are in the Below Average range and that she is functioning better than only 13% of peers in the same grade. Further, this score is more than one standard deviation below the normative sample's mean score, which suggests that Sample Client's comprehension skills are an absolute weakness. Scores within the Below Average range on the SRF-C subtest suggest weaker passage comprehension skills. If there are more deficits on inferential questions, the student likely has a surface reading style with poor depth of processing and difficulty self-organizing verbal information. If there are more deficits with literal types of questions, the student likely has poor text attention.

#### Silent Reading Fluency: Rate (SRF-R)

The SRF subtest also yields a secondary score measuring the reading rate. This measure is designed to determine how well students can read words that are embedded in the context of a story silently. Because this is a timed 60-second subtest, a student's overall

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silent reading rate can be compared with the rate score for the ORF subtest.

Sample Client's SRF-R is 80. This indicates that her reading speed is in the Below Average range and that she is functioning better than only 9% of peers in the same grade. Further, this score is more than one standard deviation below the normative sample's mean score, which suggests that Sample Client's reading speed is an absolute weakness. An SRF-R within the Below Average range suggests slower-paced silent word-recognition skills for contextual-based passages.

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# **Subtest Discrepancies**

Subtest	Standard score	Absolute difference	Significance level	Base rate
Phonemic Awareness (PA)	70	25	01	
Positioning Sounds (PS)	95	25	.01	≤15%
Phonemic Awareness (PA)	70	30	.01	<b>∠1E</b> 0/
Rapid Automatic Naming (RAN)	100	30	.01	≤15%
Phonemic Awareness (PA)	70	17	.05	>15%
Verbal Fluency (VF)	87	17	.03	Z13 /0
Phonemic Awareness (PA)	70	36	.01	≤15%
Visual Perception (VP)	106	30	.01	≥13 /0
Phonemic Awareness (PA)	70	25	.01	≤10%
Irregular Word Reading Fluency (IRR)	95	25	.01	≥10 /0
Phonemic Awareness (PA)	70	39	.01	≤5%
Semantic Concepts (SC)	109	39	.01	≥3%
Phonemic Awareness (PA)	70	29	.01	>15%
Word Recall (WR)	99	29	.01	Z13 /0
Phonemic Awareness (PA)	70	30	.01	≤10%
Morphological Processing (MP)	100	30	.01	≥10 /0
Phonemic Awareness (PA)	70	10	.05	>15%
Silent Reading Fluency: Rate (SRF-R)	80	10	.03	Z13 /0
Nonsense Word Decoding (NWD)	75	20	.01	>15%
Positioning Sounds (PS)	95	20	.01	Z13 /0
Nonsense Word Decoding (NWD)	75	25	.01	>15%
Rapid Automatic Naming (RAN)	100	25	.01	Z13 /0
Nonsense Word Decoding (NWD)	75	31	.01	≤15%
Visual Perception (VP)	106	31	.01	≥13 /0
Nonsense Word Decoding (NWD)	75	20	.01	≤15%
Irregular Word Reading Fluency (IRR)	95	20	.01	≥13%
Nonsense Word Decoding (NWD)	75	34	.01	≤10%
Semantic Concepts (SC)	109	54	.01	≥10 /0
Nonsense Word Decoding (NWD)	75	24	.01	>15%
Word Recall (WR)	99	24	.01	Z13 /0
Nonsense Word Decoding (NWD)	75	25	.01	≤15%
Morphological Processing (MP)	100	25	.01	≥13 /0
Isolated Word Reading Fluency (ISO)	70	25	.01	>15%
Positioning Sounds (PS)	95	23	.01	~1J /0
Isolated Word Reading Fluency (ISO)	70	30	.01	≤15%
Rapid Automatic Naming (RAN)	100	30	.01	≥1.0 /0
Isolated Word Reading Fluency (ISO)	70	17	.05	>15%
Verbal Fluency (VF)	87	1/	.03	~ 1J /0
Isolated Word Reading Fluency (ISO)	70	36	.01	≤15%
Visual Perception (VP)	106	50	.01	<b>△1</b> <i>J</i> /0

	Standard	Absolute	Significance	Base
Subtest	score	difference	level	rate
Isolated Word Reading Fluency (ISO)	70			
Irregular Word Reading Fluency (IRR)	95	25	.01	≤5%
Isolated Word Reading Fluency (ISO)	70			
Semantic Concepts (SC)	109	39	.01	≤5%
Isolated Word Reading Fluency (ISO)	70		2.1	4=0/
Word Recall (WR)	99	29	.01	>15%
Isolated Word Reading Fluency (ISO)	70	20	0.4	.4.00/
Morphological Processing (MP)	100	30	.01	≤10%
Oral Reading Fluency (ORF)	70	0.5	0.4	4 = 0/
Positioning Sounds (PS)	95	25	.01	>15%
Oral Reading Fluency (ORF)	70	20	24	-4.00/
Rapid Automatic Naming (RAN)	100	30	.01	≤10%
Oral Reading Fluency (ORF)	70	4.7	2=	4 = 0/
Verbal Fluency (VF)	87	17	.05	>15%
Oral Reading Fluency (ORF)	70	2.6	0.4	.4.00/
Visual Perception (VP)	106	36	.01	≤10%
Oral Reading Fluency (ORF)	70	25	01	-1.00/
Irregular Word Reading Fluency (IRR)	95	25	.01	≤10%
Oral Reading Fluency (ORF)	70	20	0.4	. <b>=</b> 0/
Semantic Concepts (SC)	109	39	.01	≤5%
Oral Reading Fluency (ORF)	70	20	01	. 150/
Word Recall (WR)	99	29	.01	>15%
Oral Reading Fluency (ORF)	70	20	01	<1.00/
Morphological Processing (MP)	100	30	.01	≤10%
Positioning Sounds (PS)	95	10	01	. 150/
Orthographical Processing (OP)	76	19	.01	>15%
Positioning Sounds (PS)	95	1.4	01	. 1 = 0/
Semantic Concepts (SC)	109	14	.01	>15%
Positioning Sounds (PS)	95	15	01	> 1 E0/
Silent Reading Fluency: Rate (SRF-R)	80	15	.01	>15%
Rapid Automatic Naming (RAN)	100	24	01	<b>∖1</b> E0/
Orthographical Processing (OP)	76	24	.01	>15%
Rapid Automatic Naming (RAN)	100			
Silent Reading Fluency: Comprehension	100 83	17	.05	>15%
(SRF-C)	03			
Rapid Automatic Naming (RAN)	100	20	.01	<b>\15</b> 0/
Silent Reading Fluency: Rate (SRF-R)	80	20	.01	>15%
Verbal Fluency (VF)	87	19	.05	>15%
Visual Perception (VP)	106	17	.03	~1J /0
Verbal Fluency (VF)	87	22	.01	>15%
Semantic Concepts (SC)	109		.01	~1J /0
Visual Perception (VP)	106	30	.01	≤15%
Orthographical Processing (OP)	76	30	.01	≥13/0

Subtest	Standard score	Absolute difference	Significance level	Base rate
Visual Perception (VP) Silent Reading Fluency: Comprehension (SRF-C)	106 83	23	.05	>15%
Visual Perception (VP) Silent Reading Fluency: Rate (SRF-R)	106 80	26	.01	>15%
Irregular Word Reading Fluency (IRR) Orthographical Processing (OP)	95 76	19	.01	>15%
Irregular Word Reading Fluency (IRR) Semantic Concepts (SC)	95 109	14	.01	>15%
Irregular Word Reading Fluency (IRR) Silent Reading Fluency: Rate (SRF-R)	95 80	15	.01	>15%
Orthographical Processing (OP) Semantic Concepts (SC)	76 109	33	.01	≤10%
Orthographical Processing (OP) Word Recall (WR)	76 99	23	.01	>15%
Orthographical Processing (OP) Morphological Processing (MP)	76 100	24	.01	>15%
Semantic Concepts (SC) Morphological Processing (MP)	109 100	9	.01	>15%
Semantic Concepts (SC) Silent Reading Fluency: Comprehension (SRF-C)	109 83	26	.01	≤10%
Semantic Concepts (SC) Silent Reading Fluency: Rate (SRF-R)	109 80	29	.01	≤15%
Word Recall (WR) Silent Reading Fluency: Rate (SRF-R)	99 80	19	.05	>15%
Morphological Processing (MP) Silent Reading Fluency: Comprehension (SRF-C)	100 83	17	.05	>15%
Morphological Processing (MP) Silent Reading Fluency: Rate (SRF-R)	100 80	20	.01	>15%

#### **FAR Feedback and Recommendations**

According to the FAR, Sample Client presents with core overall reading skills below age- and grade-level expectations. There was evidence of global reading delays, though she does not necessarily present with a specific subtype of dyslexia. Given her constellation of scores, Sample Client has excellent potential to make significant strides in reading provided she has access to specific targeted reading intervention programs. Before the actual selection and implementation of a reading program takes place, it is recommended that careful consideration be given to the following:

## **General Reading Considerations**

1. Sample Client may benefit from a reading intervention program that is administered 4-5 days per week for a minimum of 20-30 minutes per day. Frequency of intervention, not duration, will yield the greatest results.

Redacted for sample report.

# **Targeted Reading Programs**

With respect to targeted reading programs, Sample Client may benefit from a balanced literacy model consisting of strategies that attempt to hit all five pillars of the early reading process (phonemic awareness, phonics, fluency, vocabulary, and comprehension). Therefore, multiple reading programs may be advantageous instead of just a single reading program that emphasizes phonics only. A combination of individual word reading skills as well as contextual-based reading strategies are recommended. The following reading intervention programs and strategies are suggested (please note that this is not meant to be an exhaustive list):

#### **Academy of Reading**

An intervention program that helps students with phonemic awareness, phonics, fluency, vocabulary, and comprehension. This online program includes real-time reading assessments and progress monitoring.

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#### **General Reading Strategies**

The following reading programs and/or strategies may be suited for home or with a reading tutor after school:

1. **Create reading opportunities**—Look for continued opportunities for Sample Client to engage in authentic text-based reading such as daily newspapers and magazines as well as blog and internet posts.

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#### References

Academy of Reading — Torlaković, E. (2011). Academy of reading efficacy study [PDF]. Retrieved from http://eps.schoolspecialty.com/EPS/media/Site-Resources/Downloads/research-papers/AcadRea d\_GoldStandardResearch.pdf

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# **Behavioral Observations**

	Standard	
Subtest	score	Behavioral observations
Nonsense Word Decoding (NWD)	75	✓ Self-corrections
		☐ Skipping lines
Isolated Word Reading Fluency (ISO)	70	✓ Self-corrections
isolatea ((era ricaanig riaerie) (ie e)	. 0	☐ Skipping lines
		☑ Effort
		☐ Eye blinking
		Frustration
		Prosody
		☐ Rereading text
		☐ Stammering
Oral Roading Fluorey (ORF)	70	☐ Self-corrections
Oral Reading Fluency (ORF)	70	☐ Skipping lines
		☐ Tentative reading
		☐ Uneven tempo
		☐ Voice modulation
		Accuracy vs. speed
		✓ Sacrificed speed for accuracy
		☐ Sacrificed accuracy for speed
		Position of most errors
Desiring County (DC)	05	✓ Initial position
Positioning Sounds (PS)	95	☐ Medial position
		☐ Ending position
D : LA ( C N · (DAN)	100	
Rapid Automatic Naming (RAN)	100	☐ Uneven tempo
Verbal Fluency (VF)	87	☐ Intrusions
• 1		☐ Uneven tempo
		✓ Skipping lines
		Commission errors
		Omission errors
		Systematic searching strategies
Visual Perception (VP)	106	✓ Left to right
visuai reicepuon (vr)	100	☐ Right to left
		☐ Random
		Accuracy vs. speed
		✓ Sacrificed speed for accuracy
		☐ Sacrificed accuracy for speed

Subtest	Standard score	Behavioral observations	Subtest
Irregular Word Reading Fluency (IRR)	95	abla	Self-corrections
iregular Word Reduing Fracticy (fract)	70		Skipping lines
Print Knowledge (PK)	n/a		Effort
Tillit Kilowiedge (i K)	11/ a		Frustration
		<b>✓</b>	Effort
Silant Danding Elyangy Comprehension			Eye blinking
Silent Reading Fluency: Comprehension (SRF-C)	83		Fatigue
			Frustration
			Subvocalization

<sup>\*\*\*</sup> End of Report \*\*\*