**CONCLUSIONS**

Elmer does not exhibit any significant emotional, behavioral, social or attentional problems. His familial background is stable, and his parents have been involved in his education and have provided an environment conducive for learning. He has been enrolled in the same school district for his entire educational history, has attended school regularly, and has received adequate instruction. Elmer is a mono-lingual English-speaking student and has no sensory impairments (e.g., visual or auditory). Thus there are no external factors primarily contributing to his learning difficulties.

**Learning Disability**

According to IDEA [34 CFR 300.8(c)], a Learning Disability is a disorder of processing which adversely affects the ability to learn an academic skill. In order to assist in determining if Elmer meets the criteria for a Specific Learning Disability (SLD) based on a pattern of strengths and weaknesses (PSW), the Dual Discrepancy/Consistency (DD/C) operational definition of SLD was applied (Flanagan, Ortiz, and Alfonso, 2013). The following markers were used to guide the process of determining SLD:

Presence of an academic deficit

Elmer displays a significant deficit in Written Expression which is supported through multiple types of data sources. Informally, his teacher reports difficulty with writing and spelling, he was not able to pass ELA in 4th grade, and his current grade in 5th grade is a 52. His classroom work samples indicate difficulties with legibility, text generation, and difficulties in grammar, punctuation, spelling and syntax. State criterion-referenced testing (STAAR) indicates that Elmer did not meet grade-level expectations in writing in 4th grade. Elmer did participate in supplemental intervention – Writing Lab - which focused on spelling, sentence construction, and paragraph writing. He was involved in the intervention from January through April, 3 days per week for 30 minutes each session; the intervention was monitored by a teacher and consisted of completing modules on the computer. Norm-referenced testing indicates significantly low scores in Written language (BWL=67, 1st percentile). Thus, all data converge to confirm the deficit in written expression.

Presence of a Cognitive Deficit

Elmer has weaknesses in Gc:VL (lexical knowledge, which involves vocabulary and verbal conceptualization), Gs (processing speed, which involves performing tasks quickly and efficiently), and OP (orthographic processing, which involves discerning letter patterns/sequences).

Relationship between cognitive and academic deficits

Elmer’s difficulty in lexical knowledge was further clarified and expanded through speech-language tests which revealed difficulty in formulating sentences and assembling words to create grammatically and syntactically correct sentences. Specifically, Elmer has difficulty not only with vocabulary, but also how he organizes verbal concepts to form sentences. This directly affects his writing output. Elmer’s spelling is very poor due to orthographical processing. He spells most words phonetically, but will often leave out letters and letter sequences in the words. Motor skills also create an adverse impact on Elmer’s writing in that much of his written products are not legible. He lacks motor preciseness and accuracy in letter formation. Elmer’s ability to perform relatively rote tasks quickly and efficiently also affects his writing output; he lacks automaticity and is slow in overall performance.

Adequate ability to learn

Despite processing deficits, Elmer has average abilities in fluid reasoning (Gf), visual-spatial processing (Gv), memory (Gsm, Glr), and phonetic coding (Ga). These abilities facilitate his learning and when combined, form a composite reflecting average/intact cognition (FCC=92).

Domain specific cognitive deficit and Unexpected academic deficit

Elmer’s low scores in Gc:VL and Gs are much below what would be expected based on his overall ability. In addition, his performance in written expression is unexpected given adequate ability to learn.

Given the analysis above, it is concluded that Elmer does meet the criteria for the educational disability condition of LD in Written Expression based on a pattern of strengths and weaknesses.

**Dysgraphia**

According to Chapter V in the Dyslexia Handbook, specific areas must be addressed to assess for the condition of dysgraphia. These areas are presented in the table below along with the assessment techniques, instruments and results.

|  |  |  |  |
| --- | --- | --- | --- |
| **Academic Skill Assessed** | **Sources of Data** | **Score** | **Strength/Weakness****Range of Performance** |
| Letter Formation | An analysis of products indicates distorted/poorly formed letters, a mixture of capital and lower case letters, letters not anchored to the line, and poor spacing between letters and words.  |  | W |
| Handwriting | Legibility is poor. WIAT-III Essay task: 17 words written and legibility is approximately 50%. On Sentence Dictation, Elmer wrote 3 sentences and approximately 17 words, with 7 legible (41%). Spelling, spacing, and letter formation difficulties are present.  |  | W |
| Word/Sentence Dictation (timed and untimed) | Untimed Word Dictation:Spelling subtest = 77 Timed Word Dictation:Elmer was read a list of 10 words provided by his teacher that he was known to be able to spell correctly.He wrote 5.6 words in one minute. (1st grade level) The words were spelled correctly and legible.Untimed Sentence Dictation: Elmer was read 3 sentences and produced products which showed letter omissions in words, poor spelling, poor spacing between words and letters, letter substitutions and reversals, and poor letter formation. Timed Sentence Dictation:A sentence was read to Elmer from his reading textbook. He wrote 4.8 words per minute (1st grade level)Alphabet Fluency for upper-case = 6.0 wpm; lower-case=4.4 (1st-2nd grade level) |  | W |
| Copying of Text | Elmer was able to copy 6.4 words per minute (2nd grade level) on the Timed Sentence Copy task. |  | W |
| Written Expression | WJ-IV ACH Written ExpressionWJ-IV Broad Written Language | 7067 | W |
| Writing Fluency (both accuracy and rate) | As noted above, fluency is poor for timed sentence copy, word and sentence dictation,and alphabet fluency. WJ-IV Sentence Writing Fluency | 81 | W |

|  |  |  |  |
| --- | --- | --- | --- |
| **Academic Area Assessed** | **Assessment Tool** | **Score** | **Strength/Weakness****Range of Performance** |
| Spelling | WJ-IV Spelling | 77 | W |

|  |  |  |  |
| --- | --- | --- | --- |
| **Cognitive Process Area Assessed** | **Assessment Tool** | **Score** | **Strength/Weakness****Range of Performance** |
| Memory for Letter or Symbol Sequences (Orthographic Processing) | FAR Orthographical Processing | 65 | W |

 “Dysgraphia is a disorder manifested by illegible and/or inefficient handwriting due to difficulty with letter formation. This difficulty is the result of deficits in graphomotor function (hand movements used for handwriting) and/or storing and retrieving orthographic codes.  Secondary consequences may include problems with writing and written expression. The difficulty is not solely due to lack of instruction and is not associated with other developmental or neurological conditions that involve motor impairment.”

Based on the results of the evaluation, Elmer has weaknesses in all areas above. His legibility in dictation and composition tasks is poor, thus he displays illegible handwriting. His speed is well below grade expectations and estimated at the 1st to 3rd grade levels. He has a weakness in orthographic processing. Therefore, Elmer meets the criteria for the condition of dysgraphia.

**Overall determination**

Given the data presented, Elmer meets the criteria for the educational disability condition of LD in the area of Written Expression with the condition of dysgraphia.