Learning Task #4

Interpretative Report

Besart Hysniu

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EDPS 652

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University of Calgary

Psychoeducational Report

Student Name: Amanda

Chronological Age: 10 years 1 month

Grade: 5

Reason For Referral:

[Scenario] The school learning team requested a psychological assessment to gather information about Amanda's academic profile to determine appropriate programming.

Background Information:

Amanda is a grade 5 student who, although bright and excelling in her reading, is experiencing difficulties with math. At home, Amanda resides mother and her older brother (age 14). She visits her father every other weekend since her mom and dad do not live together. Amanda is not fond of physical and athletic activities and would rather spend her time alone or with her mother. Her teacher describes Amanda as shy and somewhat introverted. She prefers solo activities and may worry about being judged by others. Amanda is particularly sensitive around people who raise their voices and needs parent or teacher support and some alone time to process the event and her emotional reaction. Amanda otherwise loves reading, particularly chapter books and stories, is well-liked by her peers and is described as easy-going by her teacher. Math tasks can be frustrating for her. According to the teacher, Amanda easily forgets math instructions and rushes through math work, affecting her output.

Assessment Results and Interpretation:

Amanda's receptive skills were measured using the Peabody Picture Vocabulary Test, Fourth Edition (PPVT-4) Form A and the scores place her at the 61st percentile. A percentile rank indicates the percentage of students who scored at or below a particular score. Amanda's Expressive language skills are at the 42nd percentile as measured by the Expressive Vocabulary Test, Second Edition (EVT-2). These scores indicate that Amanda's understanding of English language words is at the expected level relative to peers, and her ability to express herself verbally in English also falls in the expected range relative to same-aged peers.

Amanda's achievement in the core academic domains was assessed with the *Wechsler Individual Achievement Test, 3rd Edition* (WIAT-III), using the Canadian norms for comparison and as an indication of basic skill development. The Wechsler Individual Achievement Test–III (WIAT-III) is a standardized academic achievement test used to measure previously learned knowledge in the areas of Reading, Written Language, Mathematics, and Oral Language.

On the Basic Reading Composite, Amanda obtained a score within the Superior range, above the 99th percentile. Specifically, on the Word Reading subtest, which assesses decoding and word recognition skills and requires the student to read aloud from a graded word list, Amanda's score falls within the Above Average range at the 96th percentile. On the Pseudoword Decoding subtest, which assesses the student's ability to apply phonetic decoding skills and requires the student to read aloud a list of nonsense words designed to mimic the phonetic structure of words in the English language, Amanda obtained a score within the Superior range at the 99.6th percentile.

Amanda also completed a Reading Comprehension subtest, which measures various aspects of reading comprehension, including reading passages and answering content questions, reading short sentences aloud and responding to comprehension questions, and her score fell within the Above Average range at the 95th percentile.

On the Sentence Combining and Sentence Building components of the Sentence Composition Composite which measures sentence formulation skills, including the use of morphology, grammar, syntax, semantics, and mechanics, Amand's score fell within the Superior range at 99.5th percentile. More specifically, Amanda scored in the Superior range in both components of Sentence Combining at the 99th percentile and Sentence Building at 98th percentile, respectively.

On mathematics skills, Amanda's Mathematics Composite fell within the Average range at the 23rd percentile. The next subtest Amanda completed was Math Problem Solving, which measures the ability to problem solve mathematically using both verbal and visual prompts (i.e., to count, identify geometric shapes, solve single and multi-step word problems, interpret graphs, identify mathematical patterns, and solve problems related to statistics and probability). Amanda's score on the Math Problem Solving subtest also fell within the Average Range at the 37th percentile. On the Numerical Operations subtest, which measures written mathematics calculation skills and solving simple equations involving all basic operations, under untimed conditions, Amanda's score fell within the Average Range at the 16th percentile.

Wechsler Individual Achievement Test, Third Edition

Scale	Score	Percentile	Range	Qualitative Descriptor
Basic Reading	**140**	**99.6th**	**137-143**	**Superior**
Word Reading	126	96th	122-130	Above Average
Pseudoword Decoding	149	99.6th	136-144	Superior
Reading Comprehension & Fluency				
Reading Comprehension	125	95th	114-136	Above Average
Oral Reading Fluency	-	-	-	
Oral Reading Accuracy	-	-		
Oral Reading Rate	-	-		
Written Expression				
Spelling	113	81st	107-119	Average
Sentence Composition	139	99.5th	131-147	Superior
Sentence Combining	*133*	*99th*		*Superior*
Sentence Building	*130*	*98th*		*Superior*

Essay Composition	-	-	-	
Word Count	-	-		
Theme Development & Text Organization	-	-		
Grammar and Mechanics	-	-		
Mathematics	**89**	**23rd**	**82-96**	**Average**
Math Problem Solving	95	37th	85-105	Average
Numerical Operations	85	16th	76-94	Average

Note: Index scores have a mean of 100 and a standard deviation of 15. A dash under subtest columns indicates that the specific subtest belonging to a composite measure was not administered.

The following two tables reveal the pattern of strengths and weaknesses between Basic Reading and Mathematics for Amanda. Amanda's strengths in Basic Reading are significant relative to her performance in Mathematics, with a base rate of such unique difference occurring in less than 1% of the time in the population.

Composite Score Summary

Scale	Score	Percentile	Range	Qualitative Descriptor
Basic Reading	140	99.6th	137-143	Superior
Mathematics	89	23rd	82-96	Average

Differences Between Composite Standard Scores

Scale	Difference	Critical Value (<.05)	Significant Difference (Y/N)	Base Rate
Basic Reading vs. Mathematics	51	6.41	Y	≤1%

Following the WIAT-III findings indicating Amanda 's strengths and weaknesses, she was also assessed with the *KeyMath3, Diagnostic Assessment Canadian Edition (KeyMath-3)* for comparison, which provides a comprehensive, norm-referenced (Canadian norms) measure of essential mathematical concepts and skills.

Amanda's KeyMath3CDN DA scores are presented below.

Total Performance

Amanda's Total Test standard score of 75 summarized her overall Math Proficiency. A score ranking in the 5th percentile is considered Below Average, indicating that Amanda places higher than 5% of the same grade population.

Area Performance

Amanda's scores were compared to her same grade peers in the norm sample for each of KeyMath3^{CDN} DA areas of Basic Concepts, Operations and Applications. The results are presented below.

The Basic Concepts math area assesses Amanda's conceptual understanding of math using the subtests of Numeration, Algebra, Geometry, Measurement and the Data Analysis and Probability subtest. Amanda's overall score on the Basic Concepts math area fell within the Below Average range at the 4th percentile.

Operations math area assesses Amanda's written and mental computation skills such as addition, subtraction, multiplication, and division of whole rational numbers as well as variables. Amanda's Operations standard score of 72 places her in the Well Below Average range at the 3rd percentile indicating that Amanda places higher than 3% of the same grade population.

The math area of Applications assesses Amanda's ability to identify key elements of math problems, the operations, and strategies necessary to solve all problems, and her ability to solve story problems. This math area has two subtests, Foundations of Problem Solving and Applied problem-solving. With a standard score of 77 Amanda placed within the Below Average range for this math area, at the 5th percentile, indicating that she performed higher than 5% of her peers in the same grade.

The following table shows the associated performance range associated with each subtest under the math areas.

KeyMath3

Scale	Raw Score	Scale Score	Standard Score	Percentile	Descriptive Category
Basic Concepts	**Sum = 40**	**-**	**75**	**4th**	**Below Average**
Numeration	10	5	-		Below Average
Algebra	8	7	-		Below Average
Geometry	10	7	-		Below Average
Measurement	4	4	-		Well Below Average
Data analysis and Probability	8	7	-		Below Average
Operations	**Sum = 21**	**-**	**72**	**3rd**	**Well Below Average**
Mental Computation & Estimation	10	8	-		Average
Addition & Subtraction	8	6	-		Below Average
Multiplication & Division	3	8	-		Below Average

Applications	**Sum = 13**	**-**	**77**	**5th**	**Below Average**
Mental Computation & Estimation	10	8	-		Below Average
Addition & Subtraction	8	6	-		Below Average
Total Test Composite	**74**	**-**	**75**	**5th**	**Below Average**

Summary and Clinical Impressions:

Amanda's performance on the WIAT-III^{CDN} (broadband achievement) and the KeyMath3^{CDN} DA (narrowband assessment of math concepts and skills) shows a unique profile relative to her peers, present in less than 1 percent of the population. Because Amanda demonstrates such a high discrepancy between her strengths in Basic Reading relative to her Average performance in Mathematics, it prompted the need for a more comprehensive assessment of essential math concepts and skills using the KeyMath3. The comprehensive math assessment further emphasized this discrepancy, revealing that the discrepancy between Amanda's Basic reading (as per the scores on WIAT-III^{CDN}) and math (KeyMath3^{CDN} DA) now ranges between Superior to Below Average, respectively. These scores suggest the possibility of a learning Disability in Mathematics; however, Amanda would need a cognitive assessment completed before a diagnosis can be considered. Furthermore, because Amanda's scores are so high in Basic Reading, there are indications, with the wide range, that Amanda is twice-exceptional, presenting as both gifted and with a learning difficulty in math. These indications can impact the educational suggestions for Amanda. A cognitive assessment would help determine whether Amanda is also in the gifted range, depending on the score cut-off and other factors influencing the clinical judgment of the psychologist.

Educational Suggestions:

With indications that Amanda is twice-exceptional, the educational suggestions need to address potentially unmet needs regarding both her areas of strengths and weaknesses relative to her peers.

Without a comprehensive cognitive assessment to determine the source of learning challenges, Amanda would still benefit from individualized instruction in all areas of Math:

- When new skills or concepts are introduced, ensure that Amanda has mastered her essential skills already since the understanding of the previous material is closely related to the new material.
- When Amanda runs into difficulty when learning new concepts, encourage procedural learning at a symbolic level until there is a broader understanding of the newer concepts with concrete examples
- Modelling and demonstrating may help Amanda understand the task better, where she may appreciate you performing the task as you talk through it
- Approach new concepts with materials that Amanda is comfortable with and knows well. This way Amanda gets a chance to experiment with the materials before moving to a more abstract level.

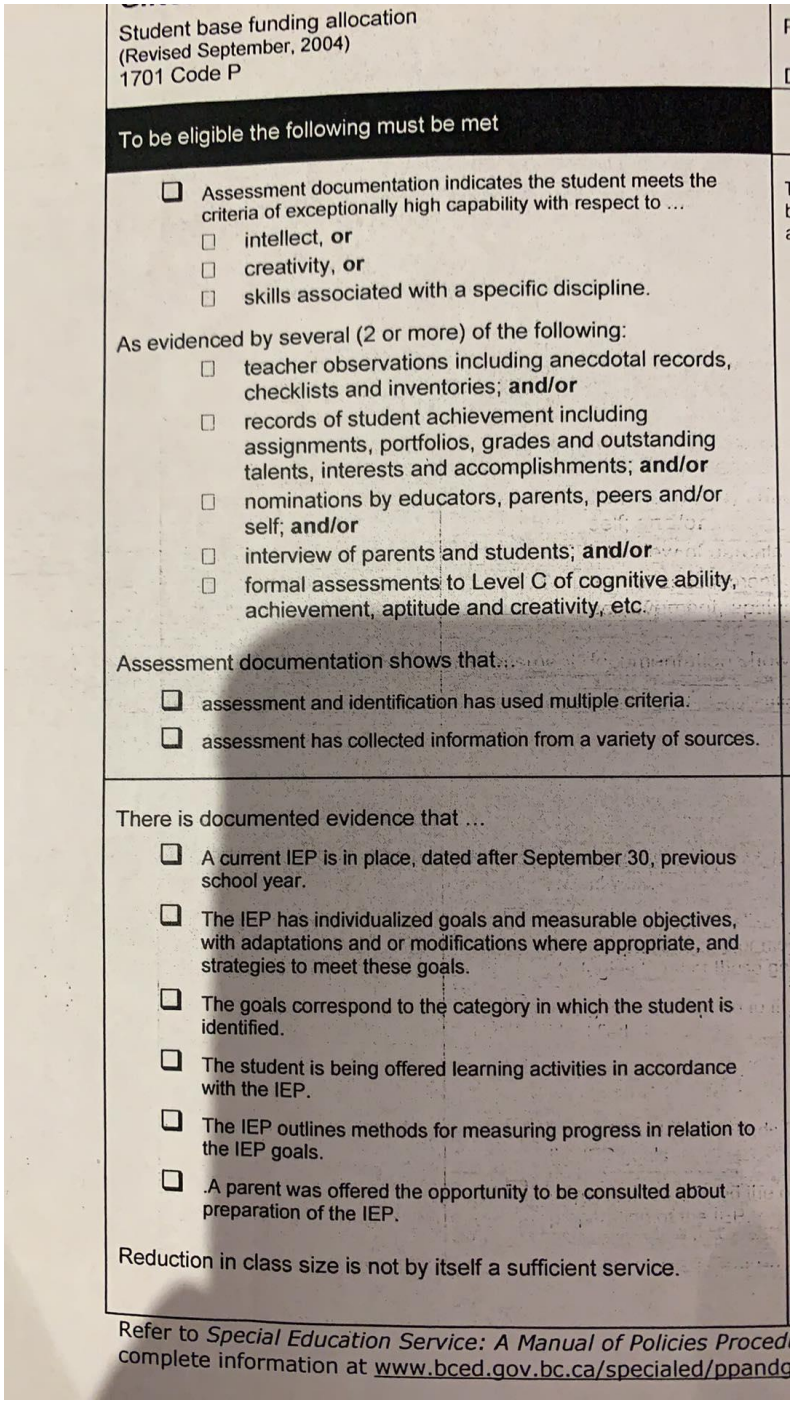
- When Amanda engages in computational skills, provide her with a variety of examples on how to apply the problem. Amanda may do well when relying on her verbalizing skills, which can be taught to her as a technique, through modelling, step by step. Verbalizing also allows for corrective feedback as it helps inform the level of comprehension of the math concepts that Amanda engages in.

Without a comprehensive cognitive assessment to determine the overall ability, Amanda would still benefit from individualized instruction that takes meets her needs at the upper end of performance with other areas of achievement.

In sum, Amanda's strengths and weaknesses indicate she should be considered for an Inclusive Education Plan (IEP), pending a cognitive assessment, and considered a priority in terms of supportive services if possible. Amanda's IEP should identify the specific supports that would benefit her most in all areas of need. Amanda could also benefit from content acceleration and grade acceleration in addition to a level of curriculum compacting specific to Math if Math difficulties are followed up with a formal learning disability diagnosis.

APPENDIX

(Eligibility Criteria in BC)



Student base funding allocation
(Revised September, 2004)
1701 Code P

To be eligible the following must be met

- ☐ Assessment documentation indicates the student meets the criteria of exceptionally high capability with respect to …
  - ☐ intellect, **or**
  - ☐ creativity, **or**
  - ☐ skills associated with a specific discipline.

As evidenced by several (2 or more) of the following:

- ☐ teacher observations including anecdotal records, checklists and inventories; **and/or**
- ☐ records of student achievement including assignments, portfolios, grades and outstanding talents, interests and accomplishments; **and/or**
- ☐ nominations by educators, parents, peers and/or self; **and/or**
- ☐ interview of parents and students; **and/or**
- ☐ formal assessments to Level C of cognitive ability, achievement, aptitude and creativity, etc.

Assessment documentation shows that…

- ☐ assessment and identification has used multiple criteria.
- ☐ assessment has collected information from a variety of sources.

There is documented evidence that …

- ☐ A current IEP is in place, dated after September 30, previous school year.
- ☐ The IEP has individualized goals and measurable objectives, with adaptations and or modifications where appropriate, and strategies to meet these goals.
- ☐ The goals correspond to the category in which the student is identified.
- ☐ The student is being offered learning activities in accordance with the IEP.
- ☐ The IEP outlines methods for measuring progress in relation to the IEP goals.
- ☐ .A parent was offered the opportunity to be consulted about preparation of the IEP.

Reduction in class size is not by itself a sufficient service.

Refer to *Special Education Service: A Manual of Policies Proced*
complete information at www.bced.gov.bc.ca/specialed/ppandg