Online Scoring and Report System: Interpretive Report

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Name: Sally Sample
Age: 10
Gender: Female
Date of Birth: 12-04-2005
Grade: 4th
School: Universal Elementary

This computerized report is intended for use by qualified individuals. Additional information can be found in the UNIT2 Examiner's Manual.

UNIT2 Global Intelligence Battery Performance

The *Universal Nonverbal Intelligence Test–Second Edition* is composed of six subtests (Symbolic Memory, Nonsymbolic Quantity, Analogic Reasoning, Spatial Memory, Numerical Series, and Cube Design), which are combined to form four possible global intelligence composites (the Abbreviated Battery, Standard Battery With Memory, Standard Battery Without Memory, and the Full Scale Battery). This section will review Sally's scores on the global intelligence composites.
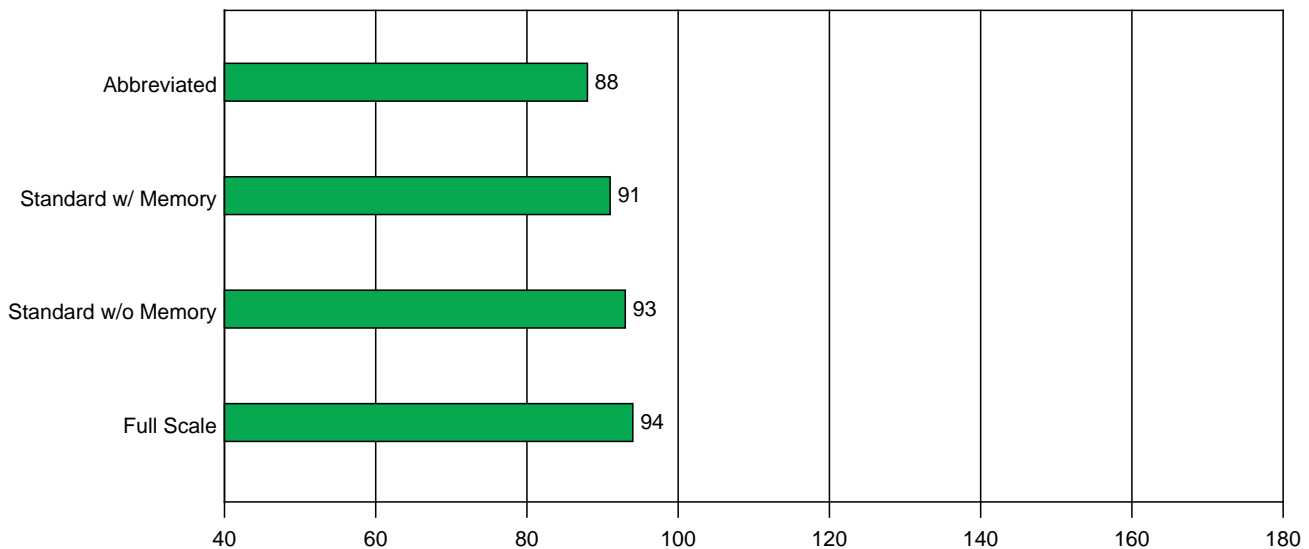
Abbreviated Battery (ABIQ)

The UNIT2 ABIQ is composed of the Nonsymbolic Quantity and Analogic Reasoning subtests, which together may be used as a screener of intellectual functioning. Sally earned an ABIQ of 88, which corresponds to a Below Average descriptive classification, and she is ranked at the 21st percentile. This means that her ABIQ performance is equal to or greater than 21% of the students her age in the standardization group. There is a 90% probability that Sally's true ABIQ exists within the range of scores between 84 and 93.

Standard Battery With Memory (SBIQ-M)

The UNIT2 SBIQ-M consists of the following four subtests: Symbolic Memory, Cube Design, Spatial Memory, and Analogic Reasoning. Sally earned a SBIQ-M of 91, which corresponds to an Average descriptive classification, and she is ranked at the 27th percentile. This means that her SBIQ-M performance is equal to or greater than 27% of the students her age in the standardization group. There is a 90% probability that Sally's true SBIQ-M exists within the range of scores between 87 and 96.

Standard Battery Without Memory (SBIQ)

The UNIT2 SBIQ consists of the following four subtests: Cube Design, Analogic Reasoning, Numerical Series, and Nonsymbolic Quantity. Sally earned a SBIQ of 93, which corresponds to an Average descriptive classification, and she is ranked at the 32nd percentile. This means that her SBIQ performance is equal to or greater than 32% of the students her age in the standardization group. There is a 90% probability that Sally's true SBIQ exists within the range of scores between 90 and 97.

Full Scale Battery (FSIQ)

The UNIT2 FSIQ is composed of all six subtests and is the most comprehensive, reliable, and valid composite available for the UNIT2. The FSIQ, therefore, is the best overall measure of general intelligence. Sally earned an FBIQ of 94, which corresponds to an Average descriptive classification, and she is ranked at the 34th percentile. This means that her FBIQ performance is equal to or greater than 34% of the students her age in the standardization group. There is a 90% probability that Sally's true FBIQ exists within the range of scores between 91 and 98.

UNIT2 Construct-Specific Composite Performance

The UNIT2 FSIQ comprises the three separate construct-specific composites: Memory, Reasoning, and Quantitative. The following sections review Sally's scores on these construct-specific composites.
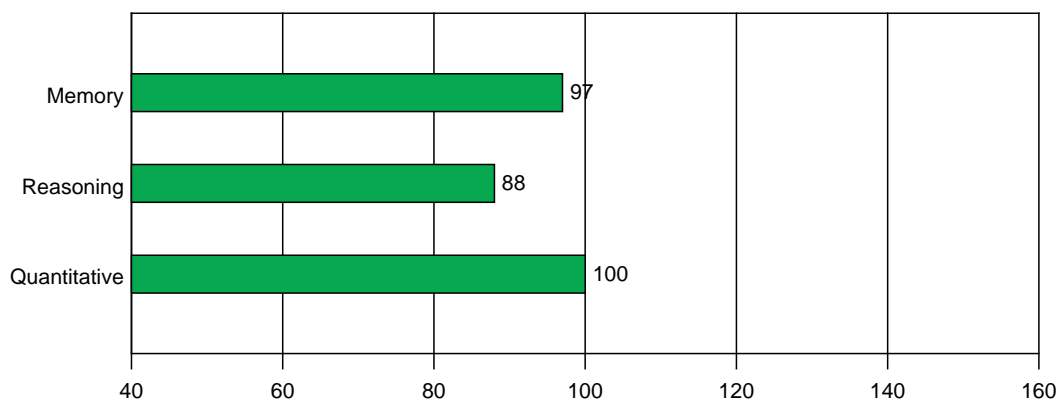
Memory

The Memory composite comprises the Symbolic Memory and Spatial Memory subtests. Sally earned a Memory index score of 97, which corresponds to an Average descriptive classification, and she is ranked at the 42nd percentile. This means that her performance is equal to or greater than 42% of the students her age in the standardization group. There is a 90% probability that Sally's true Memory score is within the range of scores between 91 and 104. Further, her Memory score is significantly different from her Reasoning index score and is considered a strength relative to her Reasoning index scores.

Sally's Memory index score indicates that she performed about average on tasks that required strategies for recall of multiple salient features simultaneously, including content, color, orientation, number, location, and sequence. She experienced no particular difficulty with the tasks requiring discrimination, labeling, organization, and categorization, such as the tasks found on the subtests that constitute the Memory composite.

There was not a significant difference between the two subtest scores on this scale.

Reasoning

The Reasoning composite comprises the Analogic Reasoning and Cube Design subtests. Sally earned a Reasoning index score of 88. This score, which corresponds to a Below Average descriptive classification, ranks at the 21st percentile. This means that her performance is equal to or greater than 21% of the students her age in the standardization group. There is a 90% probability that Sally's true Reasoning score is within the range of 84 and 93. Further, her Reasoning score is significantly different from her Memory and Quantitative scores and is considered a weakness in relation to her Memory and Quantitative scores.

Sally's Reasoning index score indicates that she performed particularly poorly on tests that required pattern processing, awareness of visual-spatial juxtapositions, and understanding of geometric relationships. There was not a significant difference between the two subtest scores on this scale.

Quantitative

The Quantitative composite is composed of the Nonsymbolic Quantity and the Numerical Series subtests. Sally earned a Quantitative index score of 100. This score, which corresponds to an Average descriptive classification, ranks at the 50th percentile. This means that her performance is equal to or greater than 50% of the students her age in the standardization group. There is a 90% probability that Sally's true Quantitative score is within the range of 96 and 104. Further, her Quantitative index score is significantly different from her Reasoning index score and is considered a strength in relation to her Reasoning index scores.

Sally's Quantitative index score indicates that she performed about average on tests that required numerical reasoning and relationships and number sense. There was a significant difference between the two subtest scores on this scale. The Numerical Series score of 12 was significantly higher than the Nonsymbolic Quantity score of 8. The Numerical Series subtest score was found to be a significant strength.

UNIT2 Construct-Specific Composite Comparisons

There was significant variation among the separate construct-specific composites of the UNIT2. This indicates that Sally's Memory, Reasoning, and Quantitative skills do vary widely and that the FSIQ is not a good description of her overall performance on the UNIT2.

Composite	Index score
Memory	97
Reasoning	88
Quantitative	100

	Index score difference	Statistically different?	Normative frequency of the difference	Pattern of score discrepancies
Memory - Reasoning	9	Yes	54.5	MI > RI
Memory - Quantitative	-3	No	89.2	NS
Reasoning - Quantitative	-12	Yes	36.3	RI < QI
	Significance level .10			

Sally's UNIT2 results indicate that her short-term and working memory skills are better developed than her nonverbal reasoning. This means that Sally's ability to comprehend and reproduce visual stimuli is better developed than her ability to analyze, synthesize, or reorganize visual stimuli. Her attention to

relevant details is better developed than her concentrated problem-solving abilities.
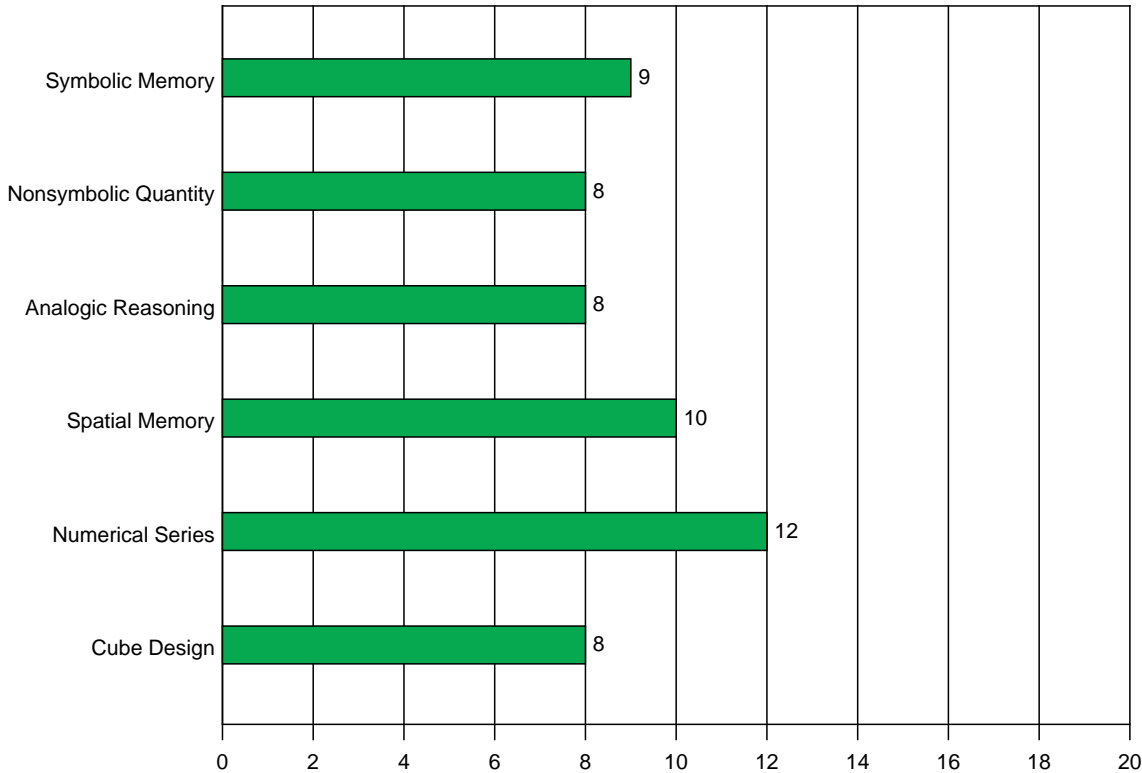
Individuals with this scale pattern may learn best through exposure to concrete, factual information, with memory aids, as opposed to through discovery learning activities. For example, reading instruction might include considerable sight-word repetition as opposed to a more whole-language approach; instruction in higher order knowledge acquisition (e.g., comprehension, synthesis, evaluation) should be based on well-learned rules, principles, rubrics, algorithms, and laws (e.g., science principles, grammar rules); learning may be aided through the use of mnemonics (e.g., "a pint's a pound the world round"); generalizations of previously learned material to new problems or contexts might be facilitated by reminding students of basic concepts that guide problem solving (e.g., the area of complex geometric designs can be computed by reducing the design to a combination of familiar shapes, such as squares, rectangles, and triangles).

Sally's UNIT2 results indicate that her quantitative reasoning is better developed than her nonverbal reasoning. Her ability to process and manipulate knowledge of relationships that have been systematically taught is stronger than her ability to discover and use information incidentally. Her ability to use numerical facts and processes to provide solutions to problems is greater than her ability to apply general facts and processes during problem-solving activities.

Individuals with this scale pattern may learn best through the application of number/object rules, classifications, rubrics, and factual quantitative information applied to the solution of problems, as opposed to activities requiring mental manipulation of non-numerical relationships. For example, quantitative reasoning might be used to solve problems in many content areas (e.g., science, social studies, history), as opposed to applying a more verbal, logical explanation of causal/solution relationships; instruction in higher order knowledge acquisition (e.g., comprehension, synthesis, evaluation) should be based on well-learned quantitative rules, principles, rubrics, algorithms, and laws (e.g., more than 80% of the wealth is held by less than 20% of the population); learning may be aided through the use of numerical reasoning (e.g., geometric progression of the world's population and corresponding decline of resources); generalizations of previous quantitative outcomes to new problems or contexts might be facilitated by reminding students of historical relationships and outcomes (e.g., exponential growth rate of bacteria; wealth follows resources; increasing rate of acceleration of a falling object).

UNIT2 Subtest Performance

This section will present Sally's UNIT2 subtest performance and describe the primary and secondary abilities each subtest shares with other subtests, as well as discuss the correlates of each subtest.

Subtest	Score
Symbolic Memory	9
Nonsymbolic Quantity	8
Analogic Reasoning	8
Spatial Memory	10
Numerical Series	12
Cube Design	8

(Scale: 0 to 20)

Symbolic Memory

Primary Abilities Shared With Other Subtests
- Attention to Detail
- Concentration
- Perception of Meaningful Stimuli
- Sequential Processing
- Symbolic Mediation
- Verbal Mediation
- Visual Short-Term Memory

Secondary Abilities Shared With Other Subtests
- Conception Formation
- Perceptual Organization
- Visual-Motor Integration

Correlates of Symbolic Memory Performance

As a measure of short-term sequential and symbolic memory, an examinee's performance on the Symbolic Memory subtest may predict such behaviors as the examinee's ability to attend to and distinguish important from irrelevant information; organize, recall, and follow multistep directions; sequence verbal information meaningfully (e.g., story telling, reading, decoding); understand and

compute multistep mathematics story problems; ignore extraneous, competing information during problem solving; and concentrate on the interrelationships between salient variables. The UNIT2 Memory composite includes the Symbolic Memory and Spatial Memory subtests.

Nonsymbolic Quantity

Primary Abilities Shared With Other Subtests
- Abstract Thinking
- Analysis
- Attention to Detail
- Concentration
- Nonsymbolic Mediation
- Nonverbal Reasoning
- Perception of Abstract Stimuli
- Perceptual Organization

Secondary Abilities Shared With Other Subtests
- Conception Formation
- Reasoning

Correlates of Nonsymbolic Quantity Performance

Performance on the Nonsymbolic Quantity subtest may predict such future behaviors as the examinee's ability to understand and solve abstract problems using symbols; determine the interrelationships between and among numbers; understand the relations represented by numbers; value classifications of symbolic systems; generalize learned principles to solve new problems (e.g., applying numerical rubrics learned in one context to a new but similar context); and use rules in a systematic fashion. The UNIT2 Quantitative composite includes the Numerical Series and Nonsymbolic Quantity subtests.

Analogic Reasoning

Primary Abilities Shared With Other Subtests
- Abstract Thinking
- Analysis
- Concept Formation
- Evaluation
- Perception of Meaningful Stimuli
- Reasoning
- Symbolic Mediation
- Synthesis
- Verbal Mediation

Secondary Abilities Shared With Other Subtests
- Attention to Detail
- Perception of Abstract Stimuli
- Perceptual Organization
- Sequential Processing
- Simultaneous Processing
- Spatial Orientation

Correlates of Analogic Reasoning Performance

Performance on the Analogic Reasoning subtest may predict such future behaviors as the examinee's ability to understand and solve conceptual problems; determine the interrelationships between objects and actions (e.g., understand cause-and-effect relationships); produce rational arguments, based on sequential logic; generalize learned principles to solve new problems (e.g., applying centrifugal force to cause sediments to settle in a vial); and acquire and use rules in a systematic fashion. The UNIT2 Reasoning composite includes Cube Design and Analogic Reasoning subtests.

Spatial Memory

Primary Abilities Shared With Other Subtests
- Attention to Detail
- Concentration
- Nonsymbolic Mediation
- Perception of Abstract Stimuli
- Perceptual Organization
- Simultaneous Processing
- Spatial Orientation
- Visual Short-Term Memory

Secondary Abilities Shared With Other Subtests
- Visual-Motor Integration

Correlates of Spatial Memory Performance

Performance on the Spatial Memory subtest may predict such future behaviors as the examinee's ability to view the totality and central nature of problems; attend to, process, and recall visual details (e.g., editing, photography, chess); remember the crux of information, rather than the sequence in which the information was presented; concentrate on a problem until the problem is well understood; disassemble and reassemble objects (e.g., motors, computers) by memory; and sensitivity and awareness to minor changes in the environment (e.g., noting the addition or subtraction of important elements). The UNIT2 Memory composite includes the Symbolic Memory and Spatial Memory subtests.

Numerical Series

Primary Abilities Shared With Other Subtests
- Analysis
- Concentration
- Nonverbal Reasoning
- Perception of Meaningful Stimuli
- Symbolic Mediation
- Visual-Motor Integration

Secondary Abilities Shared With Other Subtests
- Abstract Thinking
- Attention to Detail
- Perceptual Organization
- Reasoning
- Sequential Processing

Correlates of Numerical Series Performance

Performance on the Numerical Series subtest may predict such future behaviors as the examinee's ability to understand and solve math problems; determine the interrelationships between and among

numbers; understand the relations represented by numbers; value classifications of numerical systems; generalize learned principles to solve new problems (e.g., applying numerical rubrics learned in one context to a new but similar context); and use rules in a systematic fashion. The UNIT2 Quantity composite includes the Numerical Series and Nonsymbolic Quantity subtests.

Cube Design

Primary Abilities Shared With Other Subtests
- Abstract Thinking
- Analysis
- Attention to Detail
- Evaluation
- Holistic Processing
- Nonsymbolic Mediation
- Nonverbal Reasoning
- Perception of Abstract Stimuli
- Perceptual Organization
- Reasoning
- Reproduction of a Model
- Simultaneous Processing
- Spatial Orientation
- Synthesis
- Three-Dimensional Representation
- Visual-Motor Integration

Secondary Abilities Shared With Other Subtests
- Working Under Time Constraints

Correlates of Cube Design Performance

Performance on the Cube Design subtest may predict the examinee's mechanical or graphic (e.g., artistic, drafting, geometry) competence; ability to divide aspects of problems into discrete parts for examination and recombination to provide a viable solution; tenacity in complex future problem-solving situations; reaction to activities that have deadlines or specific time limits; flexibility in evaluating and modifying solution strategies; and ability to orient in and around his or her environment (e.g., reading maps, following spatial directions). The UNIT2 Reasoning composite includes Cube Design and Analogic Reasoning subtests.

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UNIT2 Subtest Comparisons

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There was significant variation among the separate subtests of the UNIT2. This indicates that Sally's intellectual skills do vary widely and that the FSIQ is not a good description of her overall performance on the UNIT2.

Pairwise Subtest Comparisons

	Scaled score difference	Statistically different?	Normative frequency of the difference
Symbolic Memory - Spatial Memory	-1	No	88.0
Analogic Reasoning - Cube Design	0	No	100.0
Nonsymbolic Quantity - Numerical Series	-4	Yes	21.3
		Significance level .10	

Ipsative Subtest Comparisons Within the Standard and Extended Batteries

	Scaled score	Mean scaled score	Scaled score minus mean	Statistically different?	Normative frequency of the difference
Symbolic Memory	9		-0.2	No	97.5
Nonsymbolic Quantity	8		-1.2	No	56.8
Analogic Reasoning	8	9.2	-1.2	No	56.3
Spatial Memory	10		0.8	No	72.7
Numerical Series	12		2.8	Yes	13.4
Cube Design	8		-1.2	No	58.8
			Significance level .10		