

PDMS-3 Online Scoring and Report System Detailed Narrative Report

M. Rhonda Folio Rebecca Fewell

Examinee Name: Bethany Date of Birth: 12-10-2017

Gender: Female Height: 40 in. Weight: 40. BMI: 17.6

Preferred Hand: Right Preferred Foot: Right

Gross Motor Testing Details

Examiner Name: Andrea Hoover Examiner Title: Physical Therapist

Date of Testing: 06-15-2022 Age: 4 years 6 months 5 days

Age in months: 54

Fine Motor Testing Details Examiner Name: James Becker

Examiner Title: Occupational Therapist

Date of Testing: 06-16-2022 Age: 4 years 6 months 6 days

Age in months: 54

This computerized report is intended for use by qualified individuals. Additional information regarding examiner qualifications can be found in the PDMS-3 Examiner's Manual.

Introduction

The PDMS-3 was designed to assess gross- and fine-motor skills in children from birth through 5 years of age. This report provides general information about the test and detailed interpretive information about Bethany's PDMS-3 performance. Specifically discussed are (a) general guidelines for interpreting test results, (b) the results of Bethany's performance on the test, (c) treatment goals and objectives for Bethany, and (d) cautions to consider when interpreting test scores.

General Guidelines for Interpreting PDMS-3 Results

The *PDMS-3 Online Scoring and Report System* yields three types of results: standard scores, percentile ranks, and descriptive terms. Information about these results and how to interpret them is discussed in this system.

Standard Scores

PDMS-3 subtest results are reported as scaled scores. Scaled scores are a type of standard score that provide the clearest indication of a child's subtest performance. The PDMS-3 subtest scaled scores are based on a normal distribution with a mean of 10 and a standard deviation of 3, a distribution widely used in other tests. PDMS-3 composite results are reported as index scores, a type of standard score that is based on a distribution with a mean of 100 and a standard deviation of 15. Confidence intervals provide an estimation of the precision of these index scores, as well as a range of scores in which a child's true score is likely to fall. The *PDMS-3 Online Scoring and Report System* provides estimated true-score-based confidence intervals. The range of scores that represent the 95% and 99% level of confidence around the estimated true scores are given. The 95% level of confidence is recommended. A 95% confidence interval describes the range in which a child's true score will be found 95% of the time. For more conservative decisions, use the 99% level of confidence.

Percentile Ranks

Percentile ranks indicate the percentage of the distribution that is equal to or below any particular score. For example, a percentile rank of 56 means that 56% of the standardization sample scored at or below the child's score. These scores are easy to explain, making them a popular score for practitioners to use when sharing test results with others.

Descriptive Terms

PDMS-3 results can be examined qualitatively using descriptive terms. The descriptive terms that correspond to the scaled and index scores are provided in the table below. These terms range from *impaired or delayed* to *gifted or very advanced*.

| Subtest Scaled Scores | Descriptive Terms | Index Scores |
|-----------------------|--------------------------------|--------------|
| 17–20 | Gifted or very advanced | >129 |
| 15–16 | Superior | 120–129 |
| 13–14 | Above average | 110–119 |
| 8–12 | Average | 90–109 |
| 6–7 | Below average | 80–89 |
| 4–5 | Borderline impaired or delayed | 70–79 |
| 1–3 | Impaired or delayed | < 70 |

Bethany's PDMS-3 Results

This section provides information about Bethany's behavior during testing and her test results.

Test Session Behavioral Observations

The test session was considered a valid representation of Bethany's current functioning.

Bethany's vision was adequate for testing.

Bethany's hearing was adequate for testing.

Bethany's health was adequate for testing.

Bethany adequately understood instructions.

The testing conditions were adequate.

Bethany was adequately cooperative.

Test Results

When interpreting results, do not generalize beyond the precise content and format of the composite and subtests. In most cases, the Total Motor index score is the best estimate of a child's motor skills. Occasionally, however, it can mask important strengths and weaknesses at the subtest level. For this reason, we recommend three steps for interpreting the PDMS-3:

Step 1—Interpret the global composite results.

Step 2—Interpret the domain composite results.

Step 3—Interpret subtest performance.

Each of these steps has been completed by the *PDMS-3 Online Scoring and Report System* and is described in the following sections.

Step 1—Interpret the Global Composite Results

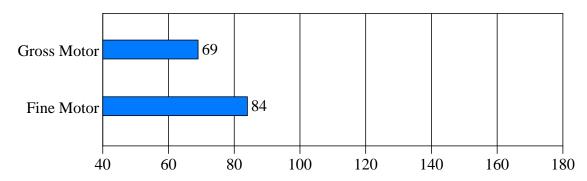
The PDMS-3 provides a global composite score called Total Motor. It combines the scaled scores from the five core subtests (i.e., Body Control, Body Transport, Object Control, Hand Manipulation, and Eye-Hand Coordination). It is the most comprehensive, reliable, and valid measure of the child's motor skills. Bethany's Total Motor index score of 73 (borderline impaired or delayed) equals or exceeds the performance of 4% of her same-age peers within the standardization group. It is 95% likely that her true score is between 68 and 80.

| PDMS-3 Score | Percentile Rank | Index Score | 95% Confidence Interval | Descriptive Term |
|--------------|--------------------|-------------|----------------------------|--------------------------------|
| Total Motor | 4 | 73 | 68 to 80 | Borderline Impaired or Delayed |

Step 2—Interpret the Domain Composite Results

On the PDMS-3, subtests are combined to form two domain composite scores: the Gross Motor and the Fine Motor index scores. Bethany's performance on these composites is displayed in the graphic below and will be discussed in greater detail in the following sections.

Domain Composite Results



Gross Motor. The Gross Motor index score is derived from the scaled scores of two subtests for children less than 16 months old (i.e., Body Control and Body Transport) and three subtests for children 16 months and older (i.e., Body Control, Body Transport, and Object Control). The Gross Motor index score represents the child's ability to use the large muscle systems to react to environmental changes, assume a stable posture when not moving, move from place to place, and catch, throw, and kick balls. Bethany's Gross Motor index score of 69 (*impaired or delayed*) equals or exceeds the performance of 2% of her same-age peers within the standardization group. It is 95% likely that her true score is between 62 and 77.

| PDMS-3 Score | Percentile Rank | Index Score | 95% Confidence Interval | Descriptive Term |
|--------------|--------------------|-------------|----------------------------|---------------------|
| Gross Motor | 2 | 69 | 62 to 77 | Impaired or Delayed |

During testing, Bethany was able to:

- move lower leg forward, backward, and forward again without losing balance while standing on one foot with free leg bent backward at the knee, hands on hips,
- stand on 1 foot for 5 seconds with hands on hips, free leg bent backward at the knee and eyes open,
- walk up four steps, placing one foot on each step without support,
- walk a straight line between 2-inch x 2-foot start and finish lines that are 10 feet apart with feet straight, heel-toe pattern, smooth weight transfer, and arms and legs moving in opposition for 75% to 100% of the distance,
- throw ball forward 7 feet in the air using an underhand motion, and
- throw tennis ball 10 feet in the air by moving arm upward and back then forward.

Most children are able to fully accomplish these tasks by 43-44, 57-60, 39-40, 41-42, 37-38, and 41-42 months, respectively.

Bethany was not able to:

- imitate jumping and touching the wall 5 inches above standing reach,
- stand on 1 foot for 7 seconds with hands on hips, free leg bent backward at the knee and eyes

- open,
- walk forward on a 4-inch x 8-foot line for three or more steps without stepping off, with hands on hips, without heels touching toes, and not swaying more than 20 degrees,
- run and stop within 2 steps without falling after an adult says, "Run until I say stop, then stop as fast as you can. Stay still until I say 'run' again, then run fast until I say 'stop'",
- throw a tennis ball 10 feet in the air by moving the throwing arm upward, back, and forward; rotating the trunk back then forward with arm movements; and stepping forward with either foot, or
- catch an 8- to 10-inch ball tossed chest-high from 5 feet with hands, arms bent at 45- to 90 degrees at elbows, palms facing up, for two out of three trials.

Most children are able to fully accomplish these tasks by 57-60, 57-60, 43-44, 47-48, 47-48, and 47-48 months, respectively.

Fine Motor. The Hand Manipulation and Eye-Hand Coordination subtests form the Fine Motor composite. The Fine Motor index score represents the child's ability to use his or her fingers, hands, and to some extent arms to grasp objects, stack blocks, draw figures, and manipulate objects. Bethany's Fine Motor index score of 84 (*below average*) equals or exceeds the performance of 14% of her same-age peers within the standardization group. It is 95% likely that her true score is between 78 and 93.

| PDMS-3 Score | Percentile Rank | Index Score | 95% Confidence Interval | Descriptive Term |
|--------------|--------------------|-------------|----------------------------|------------------|
| Fine Motor | 14 | 84 | 78 to 93 | Below Average |

During testing, Bethany was able to:

- grasp a crayon using a static tripod grasp; the crayon rests in web between thumb and index finger with three fingers on crayon and the index and middle finger raised up as the fingers and hand move together when marking,
- trace a spiral line, staying on the line without deviating more than 1/4 inch, when given a paper with a spiral line on it and a crayon and told to mark right on the line every way the line goes,
- cut a paper into two pieces approximately the same size (within 5% of one another) when given a second paper and scissors after watching an adult cut a 6-inch piece of paper into two pieces of equal size, and
- string six cubes independently within 40 seconds.

Most children are able to fully accomplish these tasks by 57-60, 61-64, 47-48, and 51-52 months, respectively.

Bethany was not able to:

• draw a triangle with three straight lines, the end points touching one another, when shown a card with a triangle and given a crayon and paper,

- imitate a finger-touching pattern within 5 seconds after watching an adult touch each finger to his or her thumb on one hand then the other with eyes closed within 5 seconds,
- connect the dots with a line that does not deviate more than 1/4 inch from the horizontal axis when given a paper with two dots about 6 inches apart and a crayon or marker and told to connect the dots with a straight line, or
- cut within 1/4 inch of line for the entire length of a circle when given paper with a circle about 3 inches in diameter and blunt plastic scissors and asked to cut on the line.

Most children are able to fully accomplish these tasks by 65-67, 65-67, 53-56, and 57-60 months, respectively.

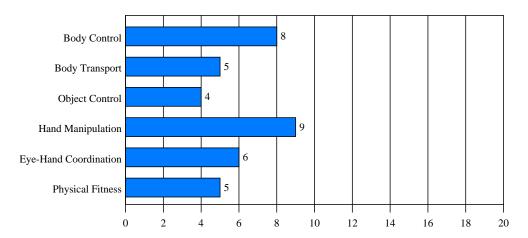
The following graphic displays the comparisons of Bethany's performance on the PDMS-3 domain composites.

| | Index Score | Is This Difference Clinically | Normative Frequency of the | Pattern of |
|--------------------------|-------------------------|-------------------------------|----------------------------|---------------|
| | Difference | Significant? | Difference | Discrepancies |
| Gross Motor - Fine Motor | 15 | No | 20.2 | NA |
| | Significance level: .05 | | NA = not applicable | |

Step 3—Interpret Subtest Results

The PDMS-3 is composed of five core subtests and one supplemental subtest that measure interrelated abilities in early motor development. Bethany's performance on the subtests is displayed in the graphic below and will be discussed in greater detail in the following sections.

Subtest Performance



Body Control (BC). This subtest measures the ability to move the limbs and trunk, postural reactions, standing, bending, extending, stooping, balancing, jumping upward. It is an estimate of the child's ability to sustain control of his or her body within its center of gravity and retain equilibrium. Bethany's Body Control scaled score of 8 (average) equals or exceeds the performance of 25% of her same-age peers within the standardization group. It is 95% likely that her true score is between 6 and 10.

| PDMS-3 Score | eore Percentile Rank Scaled Score | | 95% Confidence Interval | Descriptive Term |
|--------------|-----------------------------------|---|----------------------------|------------------|
| Body Control | 25 | 8 | 6 to 10 | Average |

Body Transport (BT). This subtest measures the ability to make movements that propel the child from one location to another, such as rolling, crawling, creeping, walking, running, jumping forward and sideward, sliding, hopping, and skipping. This subtest also estimates the child's ability to transport his or her body from one base of support to another or to another location. Bethany's Body Transport scaled score of 5 (*borderline impaired or delayed*) equals or exceeds the performance of 5% of her same-age peers within the standardization group. It is 95% likely that her true score is between 4 and 7.

| PDMS-3 Score | Percentile Rank | Scaled Score | 95% Confidence Interval | Descriptive Term |
|----------------|--------------------|--------------|----------------------------|--------------------------------|
| Body Transport | 5 | 5 | 4 to 7 | Borderline Impaired or Delayed |

Object Control (OC). This subtest measures the ability to coordinate motor movements that require the incorporation of perception and movement, such as throwing, catching, bouncing, and kicking a ball. Bethany's Object Control scaled score of 4 (borderline impaired or delayed) equals or exceeds the performance of 2% of her same-age peers within the standardization group. It is 95% likely that her true score is between 3 and 6.

| PDMS-3 Score | Percentile Rank | Scaled Score | 95% Confidence Interval | Descriptive Term |
|----------------|--------------------|--------------|----------------------------|--------------------------------|
| Object Control | 2 | 4 | 3 to 6 | Borderline Impaired or Delayed |

Hand Manipulation (HM). This subtest measures the ability to move the hands and fingers (and arms as appropriate) to complete tasks and measure dexterity. This includes manipulation of objects such as blocks, cups, and drawing instruments. Bethany's Hand Manipulation scaled score of 9 (average) equals or exceeds the performance of 37% of her same-age peers within the standardization group. It is 95% likely that her true score is between 7 and 11.

| PDMS-3 Score | Percentile Rank | Scaled Score | 95% Confidence Interval | Descriptive Term |
|-------------------|--------------------|--------------|----------------------------|------------------|
| Hand Manipulation | 37 | 9 | 7 to 11 | Average |

Eye-Hand Coordination (EH). This subtest measures the ability to interpret visual stimuli in

coordination with hand-finger movements. It is an estimate of the child's ability to integrate and use his or her visual perceptual skills to perform complex eye-hand coordination tasks. Bethany's Eye-Hand Coordination scaled score of 6 (*below average*) equals or exceeds the performance of 9% of her same-age peers within the standardization group. It is 95% likely that her true score is between 5 and 9.

| PDMS-3 Score | Percentile Rank | Scaled Score | 95% Confidence Interval | Descriptive Term |
|-----------------------|--------------------|--------------|----------------------------|------------------|
| Eye-Hand Coordination | 9 | 6 | 5 to 9 | Below Average |

Physical Fitness (PF). This supplemental subtest measures the ability to perform activities like push-ups, sit ups, repetitive jumps, running speed, throwing for distance, sit and reach/flexibility. It is an estimate of the child's ability to perform exercises that require agility, strength, endurance, or flexibility. Bethany's Physical Fitness scaled score of 5 (borderline impaired or delayed) equals or exceeds the performance of 5% of her same-age peers within the standardization group. It is 95% likely that her true score is between 4 and 8.

| PDMS-3 Score | Percentile Rank | Scaled Score | 95% Confidence Interval | Descriptive Term |
|------------------|--------------------|--------------|----------------------------|--------------------------------|
| Physical Fitness | 5 | 5 | 4 to 8 | Borderline Impaired or Delayed |

The following graphic displays comparisons of Bethany's performance on the subtests by composite.

| Subtests (by composite) | Scaled Score | Mean Scaled Score | Scaled Score Minus Mean | Is This Difference Statistically Significant? | Relative Strength/Weakness | Normative Frequency of the Difference |
|-------------------------|-----------------|----------------------|----------------------------|--|-------------------------------|---------------------------------------|
| Total Motor | • | • | | | • | • |
| Body Control | 8 | | 1.60 | No | NA | 20.9 |
| Body Transport | 5 | | -1.40 | No | NA | 34.2 |
| Object Control | 4 | 6.40 | -2.40 | Yes | Weakness | 11.7 |
| Hand Manipulation | 9 | | 2.60 | Yes | Strength | 10.4 |
| Eye-Hand Coordination | 6 | | -0.40 | No | NA | 71.5 |
| Gross Motor | | | | | | |
| Body Control | 8 | | 2.33 | Yes | Strength | 6.3 |
| Body Transport | 5 | 5.67 | -0.67 | No | NA | 49.2 |
| Object Control | 4 | | -1.67 | No | NA | 16.9 |
| Fine Motor | • | | | | | |
| Hand Manipulation | 9 | 7.50 | 1.50 | No | NA | 9.7 |
| Eye-Hand Coordination | 6 | 7.50 | -1.50 | No | NA | 9.7 |
| | - | | Sign | nificance level: .05 | NA = not applicable | |

PDMS-3 Treatment Goals and Objectives

When planning treatment, annual goals (including benchmarks or short-term objectives) must relate to two factors. First, goals must meet the child's educational or developmental needs that have been identified during an assessment process. Second, goals must be set so that the child can make reasonable progress and benefit from special instruction. A reasonable and defensible goal for a child with a disability is one that is projected to maintain the child's present rate of development, prevent further deceleration of skills, and build a solid basis for future skills. The PDMS-3 Motor Activities Program takes advantage of the very thorough standardized scores that are provided by the PDMS-3 and uses these scores to set reasonable annual and short-term goals that are clearly measurable.

In general, Bethany will advance from 37 to 45 months in gross motor skills and from 45 to 55 months in fine motor skills as measured by the PDMS-3. Based on Bethany's subtest performance, the following specific goals are recommended:

Body Control

Twelve Month Goals: Bethany will demonstrate skills at the 57- to 60-month level on the PDMS-3 Body Control subtest, such as (a) stand on one foot with the free leg bent back, hands on hips and eyes closed, for 4 seconds and (b) stand on tiptoes with arms overhead, making three complete turns without swaying more than 20 degrees to either side, spreading feet less than 6 inches apart while turning. Refer to the PDMS-3 Motor Activities Program, Unit 1 Section 35 and Unit 1 Section 36, for appropriate instructional activities.

Short-Term Objectives: Bethany will be able to (a) stand on 1 foot for 6 seconds with hands on hips, free leg bent backward at the knee and eyes open and (b) stand on tiptoes for 7 seconds without moving while reaching overhead for a toy held out of reach. Refer to the PDMS-3 Motor Activities Program, Unit 1 Section 32 and Unit 1 Section 27, for appropriate instructional activities.

Body Transport

Twelve Month Goals: Bethany will demonstrate skills at the 49- to 50-month level on the PDMS-3 Body Transport subtest, such as (a) jump over a rope tied loosely 7 inches off the floor between two chair legs that are 3 feet apart, using a two-footed takeoff and landing without tripping and (b) jump forward 6 inches or more on one foot and land on the same foot from a standing position on a 2-inch x 2-foot taped line. Refer to the PDMS-3 Motor Activities Program, Unit 2 Section 31 and Unit 2 Section 38, for appropriate instructional activities.

Short-Term Objectives: Bethany will be able to (a) run after the cue "Run until I say stop," moving arms in opposition to legs and feet, using balls of feet to push forward, pointing toes forward, bending non-supporting leg approximately 90 degrees, and leaning trunk forward and (b) run 30 feet in 4 seconds from 2-inch x 2-foot taped start and finish lines. Refer to the PDMS-3 Motor Activities Program, Unit 2 Section 35 and Unit 2 Section 30, for appropriate instructional activities.

Object Control

Twelve Month Goals: Bethany will demonstrate skills at the 49- to 50-month level on the

PDMS-3 Object Control subtest, such as (a) take two steps toward an 8- to 10-inch ball placed on the floor two steps away and kick it forward on floor 10 feet for two out of three trials and (b) strike from a standing position an 8- to 10-inch ball that is rolled slowly on the floor from 5 feet away using a smooth motion with the open palm of the preferred hand so that the ball travels to within arm's reach of person rolling the ball. Refer to the PDMS-3 Motor Activities Program, Unit 3 Section 15 and Unit 3 Section 16, for appropriate instructional activities.

Short-Term Objectives: Bethany will be able to (a) catch a ball tossed chest-high from 5 feet with arms and hands extended, without trapping it against the chest, in two out of three trials and (b) stop an 8- to 10-inch rolling ball by stepping on it without falling, in two out of three trials. Refer to the PDMS-3 Motor Activities Program, Unit 3 Section 11 and Unit 3 Section 12, for appropriate instructional activities.

Hand Manipulation

Twelve Month Goals: Bethany will demonstrate skills at the 65- to 67-month level on the PDMS-3 Hand Manipulation subtest, such as (a) grasp a crayon using a dynamic tripod grasp; the crayon is in the web between the thumb and index finger near the tip and is supported by the middle finger as the fingers are used for marks. The arm and wrist are positioned for good speed and fluid marking and (b) button and unbutton three buttons in 60 seconds or less when given an unbuttoned button strip of three buttons. Refer to the PDMS-3 Motor Activities Program, Unit 5 Section 9 and Unit 5 Section 20, for appropriate instructional activities.

Short-Term Objectives: Bethany will be able to (a) place 20 plastic tokens in a 6.5-inch x 8.5-inch rectangle using one hand within 15 seconds and (b) imitate a finger-touching pattern within 4 seconds after watching an adult touch each finger to his or her thumbs on one hand and then the other within 4 seconds. Refer to the PDMS-3 Motor Activities Program, Unit 5 Section 22 and Unit 5 Section 23, for appropriate instructional activities.

Eye-Hand Coordination

Twelve Month Goals: Bethany will demonstrate skills at the 57- to 60-month level on the PDMS-3 Eye-Hand Coordination subtest, such as (a) cut within 1/4-inch of the line on each side of a square when given a paper with a 3-inch square and blunt scissors and asked to cut on the line and (b) alternate using the left and right index fingers to slide eight tokens that are in a line 10 inches from the table's edge to within 2 inches of the table's edge in a line when shown how to perform the task and told to "Do this as fast as you can". Refer to the PDMS-3 Motor Activities Program, Unit 6 Section 26 and Unit 6 Section 19, for appropriate instructional activities.

Short-Term Objectives: Bethany will be able to (a) place eight pegs into a pegboard in 8 seconds and (b) construct an airplane from nine cubes when shown an airplane of nine cubes built by an adult and told to "Build one like mine". Refer to the PDMS-3 Motor Activities Program, Unit 6 Section 11 and Unit 6 Section 24, for appropriate instructional activities.

Physical Fitness

Twelve Month Goals: Bethany will demonstrate skills at the 57- to 60-month level on the PDMS-3 Physical Fitness subtest, such as (a) bend slowly forward while sitting on the floor with legs straight and heels spread 6- to 10- inches apart with a yardstick on the floor between the child's legs (the 15-inch mark at the heels), reach with one hand on top of the other, and touch the yardstick at the 12.5-inch mark or greater for 3 seconds and (b) run 75 feet from one 2-inch x 2-foot line taped on the floor, starting with toes on the taped line, to a second 2-inches x 2-foot line in 9 to 10 seconds. Refer to the PDMS-3 Motor Activities Program, Unit 4 Section 3 and Unit 4 Section 4, for appropriate instructional activities.

Short-Term Objectives: Bethany will be able to (a) jump sideways back and forth across a 2-inch x 2-foot line taped on the floor, with feet next to but not touching it, 10 to 12 times in 30 seconds and (b) bend slowly forward while sitting on the floor with legs straight and heels spread 6-to 10- inches apart with a yardstick on the floor between the child's legs (the 15-inch mark at the heels), reach with one hand on top of the other, and touch the yardstick at the 12-inch mark or greater for 3 seconds. Refer to the PDMS-3 Motor Activities Program, Unit 4 Section 2 and Unit 4 Section 3, for appropriate instructional activities.