Peabody Developmental Motor Scales
Second Edition
(PDMS-2)
Summary Report

Section I. Identifying Information

Name: Tim Thomas
Date of Testing: 11-16-2012
Date of Birth: 11-17-2010
Prematurity Adjustment: 44 days
Age: 22 months

Examiner: Cyndy Zoch
Examiner Title: ST
Clinic Name: OT Clinic
Clinic Location: Austin, TX
Test Location: PRO-ED

Section II. Description of the PDMS-2

The Peabody Developmental Motor Scales - Second Edition (PDMS-2) is composed of six subtests that measure interrelated abilities in early motor development. It was designed to assess gross and fine motor skills in children from birth through five years of age.

Reflexes (Re) - This subtest measures aspects of a child's ability to automatically react to environmental events. Because reflexes typically become integrated by the time a child is 12 months old, this subtest is given only to children ages 2 weeks through 11 months.

Stationary (St) - This subtest measures a child's ability to sustain control of the body within its center of gravity and retain equilibrium.

Locomotion (Lo) - This subtest measures behaviors that children use to transport themselves from one place to another, such as crawling, walking, running, hopping, and jumping forward.

Object Manipulation (Ob) - This subtest measures a child's movements needed to catch and throw objects. Because these skills do not become apparent until a child reaches 11 months of age, this subtest is only given to children ages 12 months and older.

Grasping (Gr) - This subtest measures a child's ability to use his or her hands. It begins with the ability to hold an object with one hand and progresses up to actions involving the controlled use of the fingers of both hands to button and unbutton garments.

Visual-Motor Integration (Vi) - This subtest measures a child's ability to use his or her visual perceptual skills to perform complex eye-hand coordination tasks such as reaching and grasping for an object, building with blocks, and copying designs.

All of the PDMS-2 subtests contribute to a Total Motor Quotient (TMQ). This score can most appropriately be thought of as the best estimate of overall motor abilities. In addition, each subtest contributes to either the Gross Motor Quotient (GMQ) or the Fine Motor Quotient (FMQ) score.

Gross Motor Quotient (GMQ) - This quotient measures the ability to utilize the large muscle systems to move from place to place, assume a stable posture when not moving, react automatically to environmental changes, and catch/throw objects. High scores on this composite are made by children with well-developed gross motor abilities. These children would have above average movement and balance skills. They are likely to be children who could be described as agile, well-coordinated, and graceful in their movements. Low scores are made by children who have weak movement and balance skills. These children may have difficulty in learning to crawl, walk, and run. A deficit in gross motor abilities can be mild and the child's movements may be described as clumsy and uncoordinated. More severe gross motor problems may limit a child's use of their legs to such a degree that they will need assistance to move from place to place.

Fine Motor Quotient (FMQ) - This quotient measures a child's ability to use his or her hands and arms to grasp objects, stack blocks, draw figures, and manipulate objects. High scores on this composite are made by children with

well-developed fine motor abilities. These children would have above average skills picking up small objects, drawing figures, and stringing beads. They are likely to be described as good with their hands. Low scores are made by children who have weak grasping and visual-motor skills. They have difficulty in learning to pick up objects, draw designs, and using hand tools. A fine motor deficit can be mild; the child's skills may be described as immature. Some children may have problems severe enough to need specially designed utensils to feed themselves.

The PDMS-2 was normed on 2,003 children residing in 46 U.S. states and one Canadian province. In general, the characteristics of the normative sample match information provided by the U.S. Bureau of the Census in 1997 for children under 5 years old with regard to geographic region, gender, race, rural or urban residence, ethnicity, family income, parent education, and disability.

Reliability of the test was examined in studies of internal consistency, stability reliability, and interscorer differences. The internal consistency reliability coefficients for the PDMS-2 subtests exceed .90 in most instances (range from .89 to .96). Internal consistency reliability coefficients for all PDMS-2 quotients exceed .90. Test-retest reliability coefficients were also found to be greater than .90 for most PDMS-2 scores, and coefficients depicting interscorer differences met or exceeded .96 for all subtests and composites.
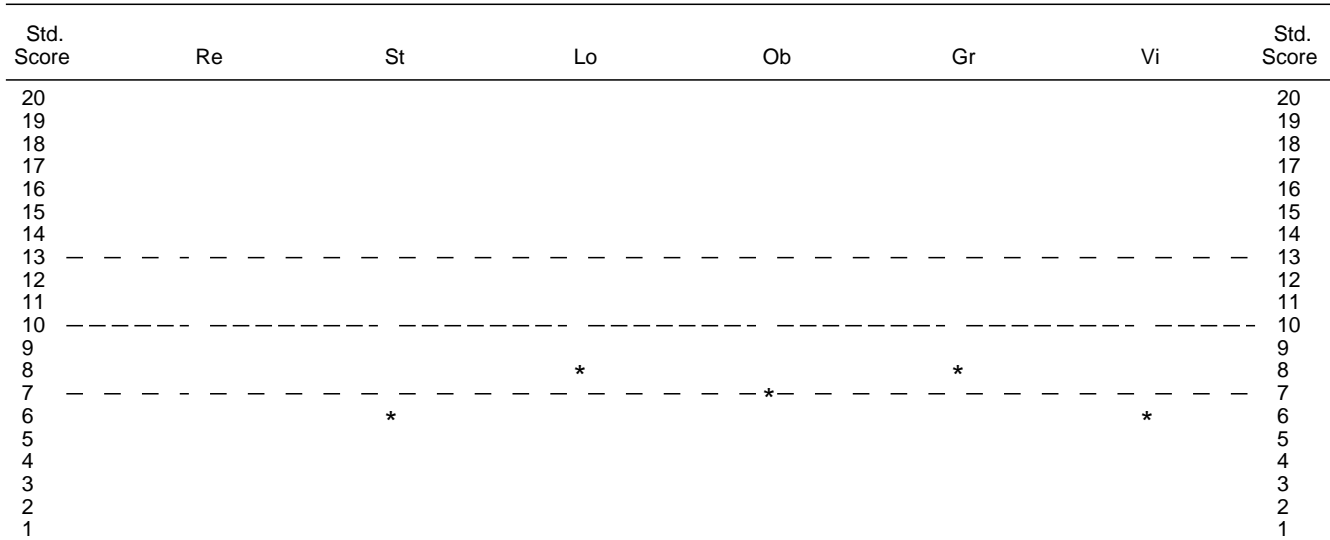
Content validation of the PDMS-2 was demonstrated by showing that the abilities measured by the PDMS-2 subtest are consistent with current knowledge regarding motor skill development. In addition, indices of item discrimination and difficulty are reported in the test manual. Finally, differential item functioning analysis procedures were used to provide evidence that the PDMS-2 is unbiased with respect to race, ethnicity, and gender.

Criterion-related validation of the test was examined by reporting significant correlations between the PDMS-2, the Peabody Developmental Motor Scales, and the Mullen Scales of Early Learning: AGS Edition. Construct validation was examined by showing that performance on the PDMS-2 reflects developing abilities and that the PDMS-2 differentiates between individuals known to be average and those expected to be low average or below average in motor abilities. Further, the subtest scores intercorrelate as expected, and the exploratory and confirmatory factor analyses provide validity for the PDMS-2 composites.

Section III. Record of PDMS-2 Subtest Scores

Subtest	Raw Score	Age Eq. Months	%ile Rank	Std. Score	Descriptive Rating
Reflexes (Re)	N/A	N/A	N/A	N/A	N/A
Stationary (St)	34	10	9	6	Below Average
Locomotion (Lo)	94	20	25	8	Average
Object Manipulation (Ob)	12	18	16	7	Below Average
Grasping (Gr)	40	14	25	8	Average
Visual-Motor Int. (Vi)	80	18	9	6	Below Average

Section IV. Profile of PDMS-2 Subtest Scores

Std. Score	Re	St	Lo	Ob	Gr	Vi	Std. Score
20							20
19							19
18							18
17							17
16							16
15							15
14							14
13	– –						13
12							12
11							11
10	– –						10
9							9
8			*		*		8
7	– – – – – – – – – – – – – – – – *– – – – – – – – –						7
6		*				*	6
5							5
4							4
3							3
2							2
1							1

Section V. Comparison of PDMS-2 Subtest Scores for Significant Differences

This section is used to identify intra-individual strengths and weaknesses across subtests. As each comparison is made, consider the abilities that are assessed by each subtest to determine content strengths and weaknesses.

Subtest	Ability Measured
Reflexes (Re)	Reaction to environmental events
Stationary (St)	Center of gravity and equilibrium
Locomotion (Lo)	Transfer from one base of support to another
Object Manipulation (Ob)	Throwing, catching, and kicking of objects
Grasping (Gr)	Ability to use hands
Visual-Motor Integration (Vi)	Visual perceptual skills

Comparisons

Subtests	Sig./DS	Subtests	Sig./DS	Subtests	Sig./DS
Re vs. St	No	St vs. Ob	No	Lo vs. Vi	Yes/Lo
Re vs. Lo	No	St vs. Gr	No	Ob vs. Gr	No
Re vs. Gr	No	St vs. Vi	No	Ob vs. Vi	No
Re vs. Vi	No	Lo vs. Ob	No	Gr vs. Vi	Yes/Gr
St vs. Lo	Yes/Lo	Lo vs. Gr	No		

Sig. = Significant difference between subtests
DS = Dominant subtest (the one with the higher score)
NA = Not available

Section VI. Record of PDMS-2 Quotient Scores

Quotient	Sums of Std. Scores	%ile Rank	Quotient Score	95% Interval		Descriptive Rating
Gross Motor (GMQ)	21	10	81	75	87	Below Average
Fine Motor (FMQ)	14	12	82	76	88	Below Average
Total Motor (TMQ)	35	8	79	73	85	Poor

Section VII. Profile of PDMS-2 Quotient Scores

Std. Score	GMQ	FMQ	TMQ	Std. Score
165				165
160				160
155				155
150				150
145				145
140				140
135				135
130				130
125				125
120				120
115				115
110	— — — — — — — — — — — — — — — — — — — —			110
105				105
100	— — — — — — — — — — — — — — — — — — —			100
95				95
90	— — — — — — — — — — — — — — — — — — — —			90
85				85
80	*	*	*	80
75				75
70				70
65				65
60				60
55				55
50				50
45				45
40				40
35				35

Section VIII. Information About Quotient Performance

Gross Motor Quotient

Tim's Gross Motor Quotient (GMQ) of 81 represents Below Average performance. Strictly speaking, the GMQ is a numeric representation of an examinee's overall performance on three subtests for children less than 1 year old (i.e., Reflexes, Stationary, and Locomotion), and three subtests for children 1 through 5 years old (i.e., Stationary, Locomotion, and Object Manipulation). Generally, Tim is unable to utilize the large muscle systems to move from place to place, assume a stable posture when not moving, react automatically to environmental changes, and catch or throw objects. Specifically, Tim was able to: (a) retrieve a toy, return to upright sitting, and maintain balance for 30 seconds; (b) run forward 10 feet; (c) kick ball forward three feet without it deviating more than 45 degrees to either side of midline. Most children can accomplish these tasks by age 7, 19, and 19 months, respectively. Tim was not able to: (a) maintain balance while sitting for 60 seconds while handling a toy; (b) stand on a line with one foot in front of the other for two seconds, with toe of back foot within three inches of front foot; (c) throw a ball overhand so that it travels three feet forward in the air. Most children are able to fully accomplish these tasks by 9, 19, and 19 months, respectively.

Fine Motor Quotient

Tim's Fine Motor Quotient (FMQ) of 82 represents Below Average performance. The FMQ is a numeric representation of the examinee's overall performance on the Grasping and Visual-Motor Integration subtests. In general, Tim has demonstrated an inability to use his hands and arms to grasp objects, stack blocks, draw figures, and manipulate objects. Specifically, Tim was able to: (a) grasp a cube with thumb opposed to first and second finger pads with space visible between cube and palm and with hand approaching from top; and (b) stack 4-5 cubes. Most children master these tasks by age 11 and 19 months, respectively. Tim was unable to: (a) grasp two cubes with one hand and hold them for three seconds; and (b) turn three pages of a book, one at a time. Children typically master these tasks by age 13 and 19 months, respectively.

Total Motor Quotient

Tim's Total Motor Quotient (TMQ) of 79 represents Poor performance. The TMQ comprises the quotient scores of the GMQ and the FMQ. Based on Tim's performance on the PDMS-2, he has inadequate overall motor abilities.

Section IX. Comparison of PDMS-2 Quotients

Tim's Gross Motor Quotient of 81 represents Below Average performance and the Fine Motor Quotient of 82 represents Below Average performance. The difference between these two scores is not statistically significant indicating that his fine and gross motor skills appear to be about the same.

Section X. PDMS-2 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-2 Motor Activities Program takes advantage of very thorough standardized scores that are provided by the PDMS-2 and uses these to set reasonable annual goals that are clearly measureable. Based on Tim's performance, the following goals are recommended:

Reflexes

Twelve Month Goal: Not applicable

Short-Term Objective: Not applicable

Stationary

Twelve Month Goal: Tim will demonstrate stationary skills at the 18-month level on the PDMS-2 Stationary subtest, such as maintain balance for five seconds while kneeling and rotating head.

Short-Term Objective: Tim will be able to: (a) maintain balance while sitting for 60 seconds while handling a toy; and (b) pull self up to a sitting position using a chair for support.

Locomotion

Twelve Month Goal: Tim will demonstrate locomotion skills at the 26-month level on the PDMS-2 Locomotion subtest, such as jump up and touch a point on the wall two inches or more above standing reach.

Short-Term Objective: Tim will be able to: (a) stand on a line with one foot in front of the other for two seconds, with toe of back foot within three inches of front foot; and (b) walk sideways for 10 feet, leading with the same foot.

Object Manipulation

Twelve Month Goal: Tim will demonstrate object manipulation skills at the 24-month level on the PDMS-2 Object Manipulation subtest, such as throw a ball underhand so that it travels three feet forward in the air.

Short-Term Objective: Tim will be able to: (a) throw a ball overhand so that it travels three feet forward in the air; and (b) throw a ball underhand so that it travels three feet forward in the air.

Grasping

Twelve Month Goal: Tim will demonstrate grasping skills at the 21-month level on the PDMS-2 Grasping subtest, such as grasp a marker with thumb and first finger toward paper and remaining fingers around marker.

Short-Term Objective: Tim will be able to: (a) grasp two cubes with one hand and hold them for three seconds; and (b) grasp a marker with thumb and first finger toward paper and remaining fingers around marker.

Visual-Motor Integration

Twelve Month Goal: Tim will demonstrate visual-motor integration skills at the 25-month level on the PDMS-2 Visual-Motor Integration subtest, such as cut a piece of paper in one place.

Short-Term Objective: Tim will be able to: (a) turn three pages of a book, one at a time; and (b) place three shapes into correct formboard holes.