

INSTRUCTIONS

Rhonda P.
Erhardt (EDVA)

ORGANIZATION AND RATIONALE

Protocol Sheets group the components of vision into Developmental Sequence Clusters, and demonstrate how transitional skills at each age level lead to those at the next. Section 1 and 2 measure vision development from the fetal and natal periods to six months, when primitive reflexes are integrated and essential eye movement components are nearly as functional as in the adult. The 6-month level can be considered a significant stage of maturity in visuo-motor development, and thus an approximate norm for assessing older children. Increased skill in localization, fixation, ocular pursuit, and gaze shift will be gained through experience and interweaving with the total cognitive and motor action system.

RECOMMENDED MATERIALS FOR ASSESMENT AND TREATMENT

Light Sources: penlight, flashlight, xmas tree lights, small lamp, window
Targets with Sound attributes: rattles, bells, music boxes, squeak toys, vocalizing faces, rhythm band instruments
Targets which glitter when illuminated by light: gold or silver jewelry, crumpled foil, prisms, xmas swags
Brightly - colored targets: fluorescent, red, yellow, orange
Slowly - moving targets: wind-up and battery - operated toys, balloons, soap bubbles
Targets with internal movement: puppets, dangling mobiles, pinwheels, slinky, abacus, rattles, animated faces, mirror
Black and white patterns: stripes, bull's eye, checkerboard, dots
Two - dimensional targets: pictures, books, photos, alphabet letters
Tiny targets: edible and non-edible pellets

PROCEDURES AND SCORING

1. Present stimuli and/or observe child.
2. Record Pattern Component scores, lowest levels first

Key: ⊕ Well-integrated normal pattern ⊖ Pattern not present ⊕ Emerging or abnormal pattern
⊕ Transitional pattern replaced by more mature patterns ⊕ Intervention needed
⊙ NORM: Permanent pattern continuing throughout life ⊙ Pattern component illustrated

3. Determine and record Developmental Level Scores

Key: ⊕ All pattern components present ⊖ No pattern components present ⊙ NORM
⊕ Some but not all pattern components present ⊕ All pattern components replaced

4. Transfer Developmental Level Scores from the Protocol Sheets to the Score Sheet

5. Estimate Developmental Levels for Score Sheet Summary

INTERPRETATION

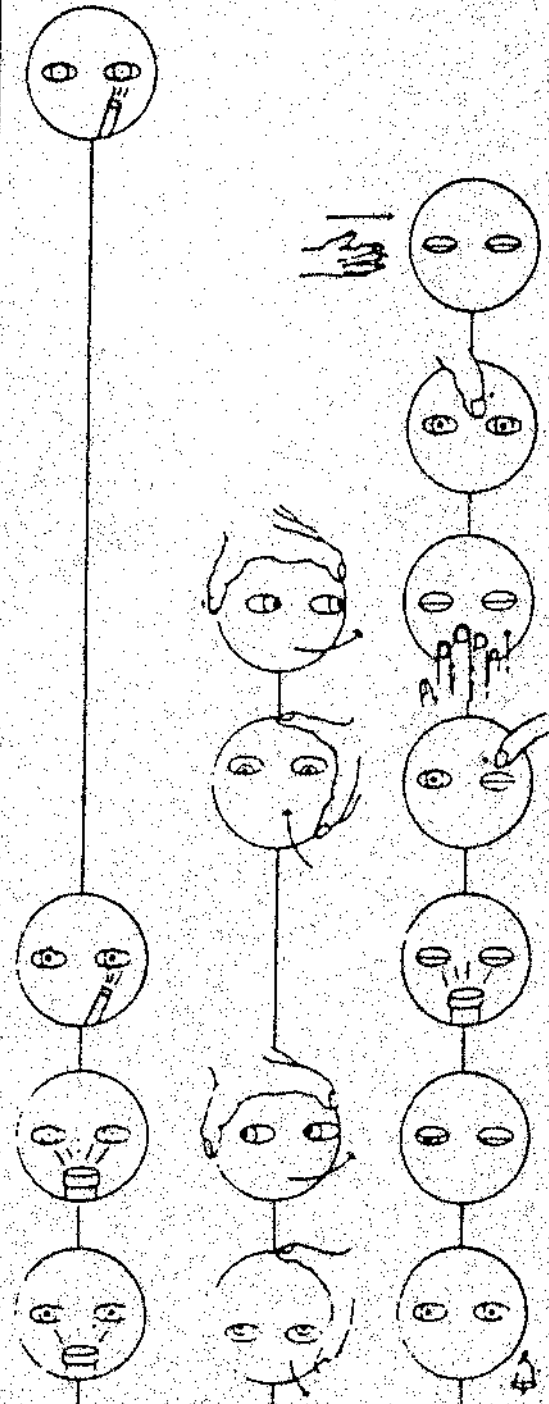
Pattern Components indicate gaps in skill sequences, developmentally inappropriate patterns, and specific intervention needs.
Developmental Levels measure baseline levels, identify significant delays, and provide accountability with retesting.

DEVELOPMENTAL VISUAL SEQUENCE CLUSTERS

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SECTION 1: Priority Involuntary Visual Patterns (Reflexive)

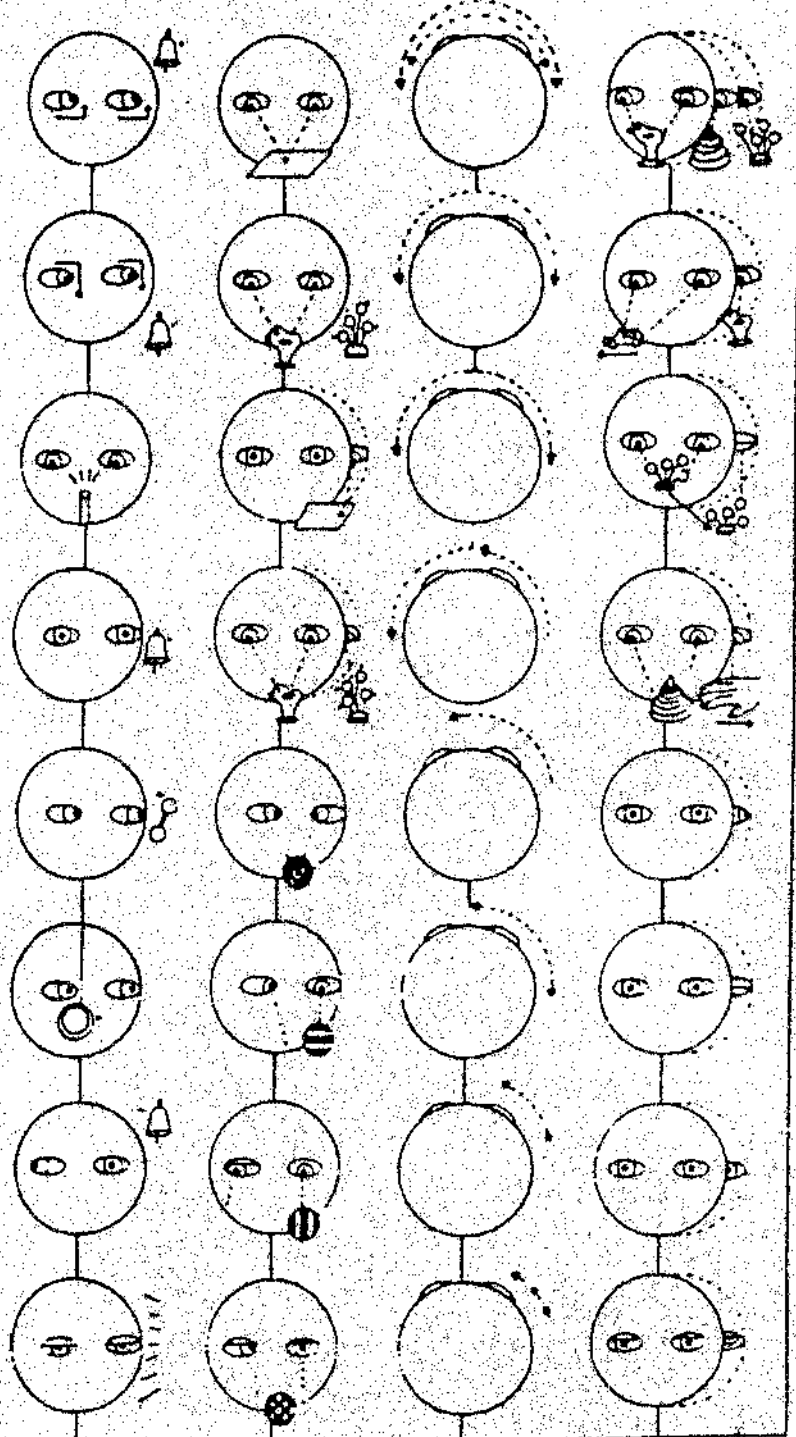


1.1
Autism
Visual Onset

1.2
Oculic Eye
Responses

1.3
Eye-to
Rotations

SECTION 2: Priority Voluntary Eye Movements (Cognitively Directed)



2.1
Location
(Adaptation)

2.2
Fixation
(Crash)

2.3
Ocular Pursuit
(Man-pulling)

2.4
Cape Shift
(Balance)

RESULTS OF THE EDVA (Attachment A)

This assessment measures visual-motor development from the prenatal period to 6 months, when reflexive patterns are integrated and essential eye movement components are nearly as functional as in the adult. Increased skill in localization, fixation, ocular pursuit, and gaze shift are then gained through experience and interweaving with the total cognitive and motor action system as the child grows older. The 6-month level can be considered a significant stage of maturity in visual-motor development, and therefore an approximate norm for assessing older children.

Section 1. Involuntary Visual Patterns (Reflexive)

1.a. Pupillary Reactions: <-month level>

Strengths:

Weaknesses:

1.b. Doll's Eyes Responses: <-month level>

Strengths:

Weaknesses:

1.c. Eyelid Reflexes: <-month level>

Strengths:

Weaknesses:

Section 2. Voluntary Eye Movements (Cognitively-directed)

2.a. Localization (Visual Approach): <-month level>

Strengths:

Weaknesses:

2.b. Fixation (Visual Grasp): <-month level>

Strengths:

Weaknesses:

2.c. Ocular Pursuits (Visual Manipulation): <-month level>

Strengths:

Weaknesses:

2.d. Gaze-shift (Visual Release): <-month level>

Strengths:

Weaknesses:

RESULTS OF THE EDVA (Attachment A)

This assessment measures visual-motor development from the prenatal period to 6 months, when reflexive patterns are integrated and essential eye movement components are nearly as functional as in the adult. Increased skill in localization, fixation, ocular pursuit, and gaze shift are then gained through experience and interweaving with the total cognitive and motor action system as the child grows older. The 6-month level can be considered a significant stage of maturity in visual-motor development, and therefore an approximate norm for assessing older children.

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Section 2. Voluntary Eye Movements (Cognitively-directed)

2.a. Localization (Visual Approach): <-month level>Strengths:Weaknesses:2.b. Fixation (Visual Grasp): <-month level>Strengths:Weaknesses:2.c. Ocular Pursuits (Visual Manipulation): <-month level>Strengths:Weaknesses:2.d. Gaze-shift (Visual Release): <-month level>Strengths:Weaknesses:

A MODEL FOR EDVA REPORT-WRITING (#II)

by Rhoda P. Erhardt, MS, OTR/L, FAOTA

January 1987

<Date>

To: <Agency>

Re: Visual-Motor Evaluation for <Name>

INTRODUCTION

<Name> was re-evaluated today with the Erhardt Developmental Vision Assessment (EDVA), to compare <his/her> present visual-motor function with <his/her> previous performance <date>, and to help determine appropriate visual components of an alternative communication system. <His/her> chronological age was <age>.

RESULTS

See attachments A. specific results of the EDVA, B. EDVA protocol booklet, and C. Developmental Visual Sequence Clusters.

COMPARISON WITH PREVIOUS ASSESSMENT <Date>

Increased Function:Decreased Function:No Change:

GENERAL CONCLUSIONS

In the normal infant the visual system develops within the total action system. The newborn's eye muscles are reflexive, random, and poorly controlled, similar to those of the head, trunk, and limbs. Reflexes gradually become integrated, movements become purposeful, and control improves in conjunction with the rest of the body until six months, when the visual system reaches a level of maturity almost equal to that in the adult.

In addition, visual information is first processed in an ambient mode (vague awareness of surroundings, especially in the periphery, and easy distractibility). With his first awareness of and response to his caregiver's face and his own hand, the baby begins focal processing (effort to maintain fixation and discriminating inspection of target). Eventually, both modes of processing are used for different purposes, as visual-perception requires spatial awareness and orientation, as well as object recognition and attention to detail.

<Name> appears to be using primarily <ambient/focal> visual processing, which provides good <awareness of the variety of stimulation in the environment/ visual attending skills needed for educational materials. <His/her> lack of <ambient/focal> processing, however, interferes with <awareness of the variety of stimulation in the environment/ the visual attending skills needed for educational materials.