

# Development of a Learning-Teaching Style Assessment: A Checklist for Documenting Observations and Teaching Strategies

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## Abstract

This poster describes the development of a new observational assessment designed to identify learning styles of children and assist therapists, teachers, and parents to select optimal strategies for teaching new skills in clinics, schools, and home environments, and then evaluate results of the selected intervention strategies in order to either maintain or modify them.

The typical K-12 classroom contains 30 percent visual learners, 25 percent auditory learners, and 15 percent kinesthetic learners, with the remaining 30 percent consisting of students with mixed learning styles.

A comprehensive literature review included information about Differentiated Assessment, which supports the learning process by helping teachers identify and address student strengths and needs, and is ongoing and responsive, changing over time in response to student growth and development. Universal Design for Learning (UDL) guidelines, are incorporated into the language and content of the instrument to provide multiple means of representation, action and expression, and engagement for students with and without disabilities.

The assessment checklist is organized into sections of types of learners: Visual, Auditory, and Tactile/Kinesthetic, each with two subsections: Behavior Characteristic Observed and Teaching Strategy Recommended. The final section is titled Summary, Interpretation, and Recommendations.

The process of collecting, comparing, and organizing literature review data was followed by field-testing of typical elementary-age children in the Occupational Performance Area of Education, including activities needed for learning and participating in that environment. Future field-testing will be done in the Occupational Performance Areas of Activities of Daily Living (ADLs), and Play.

## The Process of Developing a New Assessment

\* = Stages completed  
† = Stages to be implemented

Process	Description of Stages for Creating a New Checklist
* Motivation	The need for an instrument that could determine optimal learning styles of individual children, and recommend instructional strategies for teachers (academics), therapists (motor skills), and parents (self-help skills)
* Literature review using key words: children, learning styles, checklists, test items	Ongoing searching and reading materials related to learning styles, to compile test items for a new checklist for children who are underachievers or have difficulty learning new skills in home, school, and community environments.
* Draft version of new checklist: <i>The Erhardt Learning-Teaching Style Assessment (ELSA)</i>	Modifying and organizing test items, devising scoring system, recommending strategies, and describing methods of interpretation and recommendations
* Formal field-testing of ELSA	Selected school staff observing and scoring a sample of children in Title I classes for reading performance, implementing and scoring the effectiveness of the recommended strategies, and completing the feedback form to analyze for revision.
† Revision of ELSA based on feedback form	Results of formal field-testing, revision, and submission for journal publication
† Informal field-testing	Educational and clinical use, recording suggestions for improvement
† Content validity study	Determining the extent to which the instrument measures what it is supposed to measure, and submission for publication
† Publication of ELSA	Final revision and publication for distribution

## Procedure for the Formal Field Test

During the first few weeks at an urban elementary school, all the Title I children were observed in order to flag significant behaviors that needed attention. The designated Title I lead teacher and her staff selected children who were struggling with academic performance in reading (25%-50% quartile) for a formal field test study of the 2014 draft Erhardt Learning-Teaching Style Assessment (ELSA) as one of the observational checklists.

After scoring each child's learning styles, Initial Teaching Strategies were selected and used for a trial period. Strategy Effectiveness was then scored, to record and implement Final Recommendations, including methods of ongoing individualization and adaptations.

Finally, reading performance was measured by independent school district assessments (posttests) and compared with previous assessments (pre-tests).

The results of this 5-month study will be published as a follow-up to a previous article: Erhardt, R. P. (2014). The process of creating a learning/teaching style assessment: A checklist for documenting observations and teaching strategies. *Innovative Teaching*, 3, 11.

## The Erhardt Learning Teaching Style Assessment (ELSA)® 2014 Draft Version

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

PURPOSE: The Erhardt Learning Teaching Style Assessment (ELSA) is an observational tool to:

- Identify children's optimal learning style for acquiring new skills.

• Plan educational and therapeutic management strategies in schools/home environments.

• Evaluate results of trial interventions to modify teaching strategies, an ongoing process.

### Scoring Key

Behavior Characteristic observed

Initial Teaching Strategies recommended

Effectiveness of initial teaching strategies

Scored as Effective or Ineffective

Step 1: Example: If Section 1, Visual has 21 checks (✓) & 79 = 79 %.

Step 2: Select and Implement chosen strategies.

Step 3: Evaluate effectiveness of initial teaching strategies and make final recommendations for activities and individualized

Learning Style Scores

Section 1: Auditory

Section 2: Tactile/Kinesthetic

Section 3: Visual

Section 4: Multiple Sensory Learner (MSL)

Effectiveness of Interpretation, Initial and Final Recommendations

Name \_\_\_\_\_ Age \_\_\_\_\_ Gender \_\_\_\_\_ Examiner \_\_\_\_\_

Date Int/Observe \_\_\_\_\_ Strategies Implementation \_\_\_\_\_ Effectiveness \_\_\_\_\_

Learning Scores

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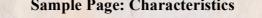
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Step 1: Interpretation of Behavior Characteristics

Analysis results from Sections 1a, 2a, 3a, based on calculation of percentage, indicates strengths and weaknesses (or multiple sensory styles). Relationships to tasks, topics, and environmental contexts should also be considered and documented.

Step 2: Initial Strategic Recommendations

Strategies checked (✓) from Sections 1b, 2b, 3b determine initial recommendations. (Electronic devices and other digital technologies are not included in those strategies, to provide children with more opportunities for experiential, concrete, and 3-dimensional learning).

Step 3: Final Recommendations

Specific Strategy Effectiveness and Results column from Sections 1b, 2b, 3b determine final recommendations, including methods of ongoing individualization and adaptations.

## Sample Page: Interpretation

### Section 4. Interpretation and Recommendations

Scoring Key	Scoring Instructions
Behavior Characteristic observed	Total possible Behavior Characteristics scores = 72
Initial Teaching Strategies recommended	Summarize the columns below, and calculate percentages for each row.
Effectiveness of initial teaching strategies	Step 1: Select and Implement chosen strategies.
Scored as Effective or Ineffective	Step 2: Evaluate effectiveness of initial teaching strategies and make final recommendations for activities and individualized
Step 1: Example: If Section 1, Visual has 21 checks (✓) & 79 = 79 %.	Learning Style Scores
Step 2: Select and Implement chosen strategies.	Section 1: Auditory
Step 3: Evaluate effectiveness of initial teaching strategies and make final recommendations for activities and individualized	Section 2: Tactile/Kinesthetic
Effectiveness of Interpretation, Initial and Final Recommendations	Section 3: Visual
Name _____ Age _____ Gender _____ Examiner _____	Section 4: Multiple Sensory Learner (MSL)

## Sample Page: Characteristics

### Section 3a: Tactile/Kinesthetic Learner

Remember what tactile experiences throughout movement and touch

Behaviors Characteristic Observed (checkmark if observed) Scores (✓)

Promotes hands-on/active movement experiences to learn how things work

Likes to examine and manipulate materials/objects to learn how things work

Expresses emotions physically

Wants to move around or fidget with something often

Enjoys heavy work for proprioceptive input, e.g., carrying or pushing heavy objects

Has a good sense of balance and uses hands to stabilize during presentations

Is a poor listener, quickly loses interest in long verbal discussions

If walking is a long time, may become fatigued and wobbly

Would rather sit than stand, or sit rather than stand, or crawl instead of walk

Shows a desire to touch objects, e.g., touch, pat, rub, kiss, taste

Makes mistakes with objects or loses objects often

Enjoys heavy work for proprioceptive input, e.g., role-playing, dancing

Handles "tough" while dancing, taking frequent short breaks

Shows a desire to touch objects, e.g., touch, pat, rub, kiss, taste

Counts on fingers, manipulating objects, e.g., for easier math learning

Shows a desire to touch objects, e.g., touch, pat, rub, kiss, taste

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