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————— **Presents** —————

**Using
Allen Diagnostic Module-2nd Edition
Assessments**

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2015

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Published by:
S&S[®] Worldwide
PO Box 513
75 Mill Street
Colchester, CT 06415-0513

For Customer Service and orders:
1-800-243-9232
www.ssw.com

Using Allen Diagnostic Module -2nd Edition Assessments

What is the Allen Diagnostic Module-2nd Edition?

The *Allen Diagnostic Module-2nd Edition* (ADM) is a collection of 35 craft based assessments developed by occupational therapists within the framework of the cognitive disabilities model to assess the functional disabilities of persons with cognitive impairments.

How was the original ADM developed?

Catherine Earhart OTR/L and Claudia Allen, MA OTR FAOTA combined their extensive clinical experience with the observations of many skilled therapists to develop the first edition of the ADM which described a group of standardized craft activities that provide opportunities to observe new learning and problem solving abilities. The first edition of these activity assessments was published in 1993. Assessment materials for each assessment have been packaged in kits and marketed by S&S Worldwide since 1993.

What kinds of assessment activities are in the ADM-2nd Edition?

The assessment activities used in the ADM-2nd Edition are designed to provide opportunities to observe individuals' learning and problem solving with new materials and procedures. Each activity produces an end product that is useful, universally recognizable, adult, safe, and attractive. Individuals who complete these assessments are encouraged to keep the products of their work. Assessment scores range from 3.0 (easiest task demand and least ability) to 5.8 (most difficult and near normal abilities). Task procedures contain universally familiar actions such as placing, stacking, sewing, knotting, painting, sanding, or drawing a line. The materials are standardized so that the effects produced by the actions of the person being assessed provide predictable problems to solve. Standardized set-up of materials, standardized administration and prompts are provided in the test manual. Rating criteria were developed based on pilot testing of large numbers of persons.

What is new in the Allen Diagnostic Module Manual-2nd Edition?

The second edition of the ADM manual published in 2006 by C. Earhart contains substantially revised Guidelines for Use. New additions include: a definition of the theoretical construct derived from the principles of Claudia Allen's cognitive disabilities model; qualifications for administrators; intended populations; how the assessments were developed; guidelines for selecting, administering, scoring, and interpreting scores; directions for research; various appendices; glossary of terms; and resources for further study. The second edition benefited from the contributions of Sarah Austin, MS OTR/L, Assistant Professor of Occupational Therapy at Chicago State University, who generously shared with the author her expertise in the area of tests and measurement.

Clinicians are strongly encouraged to administer ADM-2nd Edition assessments according to the Guidelines for Use and the assessment protocols in the Allen Diagnostic Module Manual-2nd Edition in order to follow best practice in the administration of these tools. The Allen Diagnostic Module Manual-2nd Edition is available from S&S® Worldwide.

Frequently Asked Questions

The following questions are intended to orient administrators to the use of the Allen Diagnostic Module-2nd Edition and are not intended to provide all info. necessary for effective administration of these tools.

What do the ADM-2nd Edition assessments measure?

The central construct measured by ADM-2nd Edition assessments is *functional* cognition. The term functional cognition denotes and includes the complex and dynamic interactions between a person's cognitive abilities and their context that produce observable task behavior.

Functional cognition as a hierarchy of abilities

Functional cognition is conceptualized as a hierarchical continuum of abilities. This sequence was described initially by Allen and her colleagues as six cognitive levels (1982), and was later expanded to 26 Modes of Performance (1992). Modes of performance are capacities for performance mediated by the biological condition of the brain that are available at a particular moment in time.

Allen Scale and activity analysis connection

The 26 modes of performance collectively referred to as the *Allen Scale* describe observable patterns of performance including awareness of sensory cues, motor actions, verbal abilities, and awareness of self and one's context. The cues and associated motor actions described at each mode also provide the activity analysis through which task demands of particular activities are identified. Understanding task demands allows therapists to better predict performance difficulties and to modify tasks or environments to promote successful performance in particular activities or tasks. Because the ADM-2nd Edition was developed based on this theoretical scale that helps describe both the abilities of individuals AND the difficulties of tasks that are valued by the individual, ADM-2nd Edition scores provide a valuable source of assessment data for promoting functional outcomes.

The ADM-2nd Edition assessment is part of a comprehensive evaluation process

Each ADM-2nd Edition assessment must be administered according to the Guidelines for Use and the assessment protocol in the *Allen Diagnostic Module Manual-2nd Edition* (Earhart, C. 2006). Performance is observed and a score is assigned according to rating criteria for the activity. Therapists need to interpret these scores within the context of what the individual needs and wants to do, taking into account the multiple factors that may facilitate or hinder an individual's engagement in valued occupations. Scores derived from ADM-2nd Edition assessments are intended to be used as one element in a comprehensive evaluation process.

Who may administer the ADM-2nd Edition assessments?

ADM-2nd Edition assessments are intended to be administered and scored by registered occupational therapists who have experience working with individuals with cognitive impairments and who have developed an understanding of the cognitive disabilities model; and by certified occupational therapy assistants who have established service competency and are contributing to the evaluation process with the supervision of a registered occupational therapist.

Scores derived from ADM-2nd Edition assessments may be helpful to other health professionals in treatment planning within their profession's scope of practice.

What populations benefit from use of the ADM-2nd Edition assessments?

ADM-2nd Edition assessments are intended to be administered to individuals who have, or are suspected to have impairments in cognition that affect their *global* ability to function. This type of impairment is most common for individuals with mental health diagnoses or Alzheimer's type dementia. Interpreting observations made during the administration of an ADM-2nd Edition assessment for an individual with a localized brain injury requires additional knowledge of current neuroscience and expertise in the application of the cognitive disabilities model.

Overview of the evaluation process

The evaluation process includes review of available records, interview of the client to collect an occupational profile, and administration of the ACL screening tool (ACLS-5 or LACLS-5) prior to administration of the ADM-2nd Edition assessment.

Selecting which ADM-2nd Edition assessment to use

Therapists should consider several factors when selecting an ADM-2nd Edition assessment for a specific individual, including ACLS-5 score, motor or other physical impairments, client preferences, and past experience. In general therapists select an ADM-2nd Edition assessment in which the individual expresses an interest and whose scores include the ACLS-5 score. For example, if a person scores 4.0 on the ACLS-5, selecting an ADM-2nd Edition assessment with scores ranging from 3.0 to 4.6 would allow the individual to demonstrate similar, higher, or lower skills in the performance of the activity. Therapists who use the ADM-2nd Edition should become proficient in administering several of the assessment tasks described in the manual. This will allow the therapist to select an appropriate assessment for each individual based on the individual's abilities and interests. The use of multiple assessment tasks is also necessary to avoid testing errors due to practice effects when individuals need to be retested. Therapists may elect to use an ADM-2nd Edition assessment prior to administering the ACLS-5, but some information may be lost if the assessment selected is not a good match for the individual's abilities.

Table 1 describes ranges of scores for all ADM-2nd Edition assessments.

Table 1: Range of Possible Scores in ADM-2nd Edition Assessments

Assessment	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8
Mug															
Canvas Place Mat															
Visor															
Frog Note Holder															
Whale Note Holder															
Felt Turtle															
Sun Flower Memo Board															
Bargello Bookmark															
Bead Kit I															
Recessed Tile Box															
Tile Trivet															
Button Bookmark															
Button Frame															
Fabric Notebook															
Ribbon Card															
Storage Box															

Assessment	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8
Leather Key Fob															
Turtle Key Ring															
Jute Purse															
Jute Tote Bag															
Bead Kit II															
Fabric Covered Box															
Heart Key Ring															
Secretary Box															
Stenciled Card															
Initial Key Ring															
Flag Magnet															
Needlepoint Coaster															

How are ADM-2nd Edition assessments administered?

Each ADM-2nd Edition assessment protocol in the Allen Diagnostic Module Manual-2nd Edition describes set up for individual and group assessments, including making a sample, giving instructions and demonstrations, and providing cues and prompts to clarify abilities. Therapists should familiarize themselves with the protocol prior to administration.

Table 2: Sample Page of Canvas Placemat Protocol

Canvas Placemat

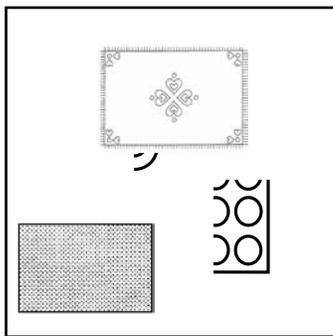
When to Use this Assessment

This activity provides a clean, relatively quick assessment with few materials for persons with suspected severe to moderate global cognitive disabilities (modes 3.0 – 4.6.) It can be done at bedside. Groups of more than 4 persons will require additional samples.

Rating Criteria Revisions

Rating criteria have been revised in the second edition of the Allen Diagnostic Module Manual (2006) in consultation with Sarah Austin, M.S. OTR/L in preparation for validity studies of this and other ADMs. Changes included clarifying distinctions between criteria for adjacent scores and limiting the use of “may” or “is likely to” to criteria that reflect behaviors that are expected to be emerging within specific mode of performance.

Evaluation Set-Up

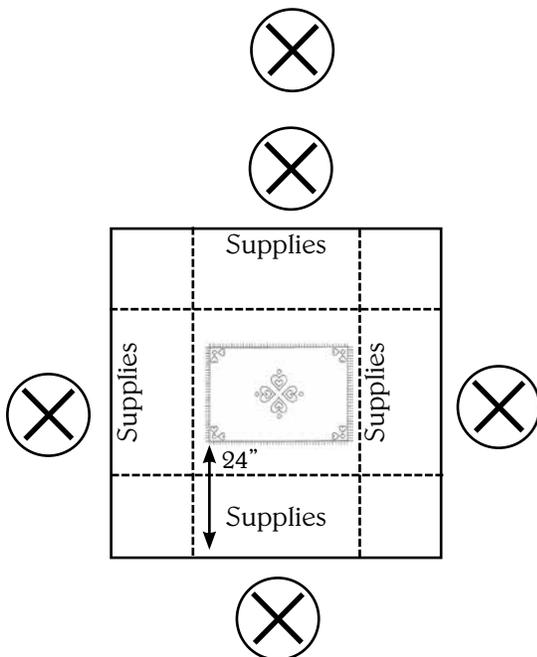


Individual

Seat each person at a table/tray table with supplies and sample located within 24 inches. Divide the felt shapes into 6 bins as follows:

- Bin 1: 2 each yellow, orange, blue, green large hearts
- Bin 2: at least 6 medium red hearts
- Bin 3: at least 10 small red hearts
- Bin 4: at least 10 red circles

Note that amounts are more than the number needed to complete 1 placemat.



Group (to 8)

Seat persons at a table, each with individual set of supplies as listed above, and a sample located within 24 inches. Larger groups will require additional samples so that persons will be able to refer to a sample within 24 inches. Samples in groups may be located to the right or left of persons and rotated 90 degrees relative to their placemat.

How is a score determined?

Rating criteria were developed from extensive pilot testing of adult psychiatric patients by skilled clinicians. Groups of behaviors reflecting patterns of performance are assigned a number that corresponds to the modes of performance, such as 4.0, 4.2, and 4.4, that are described in the cognitive disabilities model. To determine a single score, the administrator reviews all of the behaviors that an individual demonstrated during the assessment, and compares these behaviors to the sets of rating criteria that are associated with each theoretical mode of performance. The therapist selects a single score by determining which set of criteria best match the majority of skills that were observed described within a specific mode on the rating criteria.

Table 3: Sample page of Canvas Placemat Rating Criteria)

Rating Criteria – Canvas Placemat (3.0-4.6)				
Score	Step 1	Step 2	Behaviors	Probes to Next Mode
3.0	• • •	• • •	Reaches for and grasps, holds, and/or feels objects. May name objects or verbs: "heart", "mat", "put." Sustains grasp or feels objects for a few seconds or until removed.	"Put it here." (point) Place hand over hand and guide placement of shape.
3.2	• • • • • • •	• • • • • • •	Pulls at edge thread, or places shapes briefly and randomly. Stops and starts an action when told: "Keep going." Places shape where pointed: "Put it here." May not look at mat while pulling thread or placing shapes. Pulls one or two threads on one side then stops. Performance does not change with encouragement or cues. May not locate or use glue. May comment with short phrases ("A blue heart".) Sustains actions for less than one minute without encouragement or a cue.	"Keep going." "Look at what you are doing." Point to objects.
3.4	• • • • • • • • • •	• • • • • • • • • •	Starts to place shapes before or during instructions. Apt to not stop when asked. Looks at shapes and/or own mat inconsistently while doing actions. Pulls out 1 or 2 threads but abandons at first difficulty. May watch but fails to imitate second demonstration to pull only one thread at a time. Dots glue on mat or back of shapes and places shapes in a row or randomly on mat. Does not reposition shapes once down or attempt to fill mat with shapes. May comment with short sentences describing actions ("I am putting them down.") Does not request assistance or instruction. Sustains actions on objects for one minute to 15 minutes without encouragement or a cue.	"Can you wait for instructions?" "Look here: is the thread off?" "Is the shape sticking?" "Grab one thread at a time (demonstrate.)"
3.6	• •	• •	May begin to place shapes without instruction but waits for instructions when told. Looks at/notes effect of actions and may comment on effect ("This is not working").	"Are you done with the fringe?" "Is your mat finished?"

How are scores used?

Therapists should interpret ADM-2nd Edition scores within the context of what the individual needs and wants to do, and an analysis of occupational performance that considers multiple factors which may facilitate or hinder an individual's engagement in valued occupations. The use of scores varies by practice setting. They may be used to describe patterns of performance that are changing over time such as in acute conditions. Therapists may engage individuals in serial assessments to detect anticipated changes in global abilities or symptoms. Scores may also be used to collaborate with the individual and/or caregivers to plan intervention activities that provide the "just right challenge" in stable conditions.

Resources

1. Occupational *Therapy Treatment Goals for the Physically and Cognitively Disabled* by Allen, C.K., Earhart, C.A., and Blue, T. (1992) describes the cognitive disabilities model, including the modes of performance and assessments. Available from S&S Worldwide. www.ssw.com
2. *Manual for Allen Cognitive Level Screen (ACLS-5) and Large Allen Cognitive Level Screen (LACLS-5)* by Allen, C., Austin, S., David, S., Earhart, C., McCraith, D., Riska-Williams, L. (2007). A quick initial screen of visual motor learning and problem solving in three leather lacing tasks of increasing complexity. Available from S&S Worldwide. www.ssw.com
3. ACLS and LACLS leather lacing tools by C. Allen are available from S&S Worldwide. www.ssw.com.
4. *The Allen Diagnostic Module Manual-2nd Edition* by Earhart, C. (2006) provides information necessary to administer 35 assessment activities. Available from S&S Worldwide. www.ssw.com.
5. 35 assessment activities. Available in kits from S&S Worldwide, Colchester, CT. www.ssw.com.
6. *Understanding Cognitive Performance Modes*. Allen, C. (1995). Reference guide to 26 modes of performance including related treatment goals and safety concerns. Available from S&S Worldwide. www.ssw.com
7. *Allen Cognitive Levels: Meeting the Challenges of Client Focused Services*. Pollard, D. Color-coded reference guide to Modes of Performance and Cognitive Levels. Available from S&S Worldwide. www.ssw.com
8. *Routine Task Inventory-Expanded (RTI-E)*. Noomi Katz, 2006. Available as free download from www.allen-cognitive-network.org.
9. The Allen Cognitive Advisors, Ltd. is an international organization providing education and networking for clinicians using the Allen Levels. www.allen-cognitive-network.org

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