

COGNITIVE ABILITIES LISTED

Five Phases of Cognitive Processing

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A person's **brain** directly affects their cognitive abilities. Cognitive abilities enable a person to think, imagine, perform tasks, and to understand and respond to their surroundings and other people. None of us has a perfect brain. We each have parts of our brain that work better than other parts. Therefore, we each have some cognitive abilities that are **stronger** (and easier) than other cognitive abilities. Each person has a unique brain and therefore a **unique** pattern of cognitive abilities that are easier or more difficult (that is, cognitive strengths and cognitive needs). This means some tasks or parts of tasks, for example, are easier for a person than other tasks or parts of tasks. Learning to know **which cognitive abilities come easily** to a person and which are more **difficult** can help you know how to **relate to this person** and how to **help** them. Learning to know **your own** cognitive strengths and needs can also help you know how to adapt tasks for yourself and how to communicate more easily.

When a person's cognitive abilities are not supported, they may have more difficulty understanding, performing tasks, and communicating, be more easily tired, frustrated, and distressed, and be more confused and upset by other people's behavior or actions. They may more easily cause other people distress as well.

As you communicate or perform a task with this person, you can help them by using their cognitive strengths and adapting to their cognitive needs. Supporting this person's cognitive abilities can include **adapting the environment, tasks, and your interactions** with this person. See **other CAIS handouts** for ideas.

Only a few of the **many** cognitive abilities are listed in this handout. They are listed in the order in which the brain (every person's brain, healthy or not) **processes information** from the surroundings and other people.

Some of the **factors** that **affect** a person's **cognitive abilities**, are their brain, emotions, pain, physical and medical health, medications and drugs, sensory changes, age-related changes, their environment, and the situation.

1. Sensory Functions

(Receiving information from the environment with the five senses)

- a. Seeing
- b. Hearing
- c. Feeling
- d. Tasting
- e. Smelling

2. Perception and Comprehension

(Recognizing and understanding the information received)

- a. Recognizing objects (whole and parts of: things, faces, parts of the body)
- b. Recognizing colors, shapes, sizes
- c. Recognizing distances and orientation of objects to each other in space, and from self
- d. Noticing objects in all parts of one's visual field
- e. Understanding pictures and photographs
- f. Understanding gestures and facial expressions
- g. Understanding speech and written words
- h. Recognizing music (pitch, tune, rhythm)
- i. Sensing balance and where one's body parts are in space
- j. Recognizing when and which of one's own body parts are being touched
- k. Recognizing touch: pressure, temperature, texture
- l. Recognizing objects by feel

3. Executive Functions

(Organizing, categorizing, manipulating, and using the information received)

- a. Attention and concentration: sustained focus on relevant stimuli (figure-ground)
- b. Knowing when a task is done
- c. Orientation
- d. Speed of processing and reaction time
- e. Memory (for various lengths of time, for various types of content & presentation)
- f. Knowing and remembering the big picture
- g. Knowing and remembering details
- h. Logic
- i. Ordering (Sequencing)
- j. Problem solving
- k. Anticipation or expectation
- l. Abstraction
- m. Choosing among options: producing, remembering, recognizing, evaluating
- n. Shifting from one idea or activity to another
- o. Quantity appreciation
- p. Knowing how much time has passed
- q. Getting started (initiation)
- r. Stopping, censoring, or delaying one's thoughts, acts, and impulses
- s. Recognizing and identifying various types of pain in one's own body parts
- t. Recognizing abilities, disabilities, needs, desires (own and others)
- u. Recognizing mistakes (own and others)
- v. Conscious awareness of what one knows, thinks, feels, and of one's own behavior
- w. Interpreting someone else's behavior and feelings through observation and analysis
- x. Adapting one's behavior and body position in response to someone else's words, behavior, or expressions of emotion
- y. Empathy and sympathy
- z. Recognizing and interpreting an environment and situation
- aa. Adapting to new environments and to unfamiliarity and change

4. Expressive Functions

(The brain telling the body what to do)

- a. Using gestures
- b. Moving and coordinating body parts (to walk, stand up, sit down, reach hand out to take an object)
- c. Modulating body movements (pacing, rhythm, variation, speed, cadence)
- d. Being able to do something when one wants to (intentionally)
- e. Being able to do something spontaneously, automatically without thinking, in imitation, on request
- f. Producing sound and with variation (pitch, tune, rhythm, cadence)
- g. Finding or producing words to speak and write
- h. Copying written words and drawings
- i. Coordinating actions into meaningful performance (daily tasks, building, drawing, pulling, taking)

5. Motor Functions

(The body doing what the brain tells it to do)

- a. Strength
- b. Range of motion
- c. Coordination (physical) of body parts (e.g., dysarthria)
- d. Speed (time required to physically move body parts)
- e. Pain

SOURCES:

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