

RECOGNIZING COGNITIVE ABILITIES

Suggestions for Recognizing Evidence of a Person's Cognitive Strengths and Needs

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TO KEEP IN MIND

1. Cognitive abilities include a person's ability to **think, understand** what they see or hear, **figure out** how to do things, **remember, imagine**, and many **other cognitive functions**. Cognitive abilities allow us to **communicate, understand** and **respond** to our surroundings, **create**, and **perform tasks**.
2. Cognitive abilities are associated with specific parts of the **brain**.
3. None of us has a perfect brain, that is, a brain where all parts work equally well and can make every cognitive ability strong. **We each** have a **unique pattern** or set of **strong** and **weak cognitive abilities** (that is cognitive **strengths** and cognitive **needs**). We each have specific cognitive abilities or skills that are easier for us and some that are more difficult.
4. Since birth, **each person has learned to compensate** for or adapt to the cognitive abilities that are difficult for them. For example, if a person has trouble sensing direction, they find and use detailed directions with a list of roads and turns to take to get to their destination.
5. The human **brain changes** over a lifetime due to growth, maturation, experiences, their environment, and various disorders. When a person's **brain changes** due to a disorder and a cognitive ability that had been easy becomes more difficult, this person will again likely develop strategies to **compensate** for or **adapt** to the change in that cognitive ability. For example, if a person has difficulty noticing objects in their left visual field, they may place their dinner plate to their right rather than directly in front of them.
6. A person is usually **not aware of** or conscious of the fact that they are compensating, or how they are compensating. For example, they may insist on sitting in a particular position at the table even though they don't know why.
7. We can learn about a person's cognitive strengths and needs by **observing how they compensate** for cognitive abilities that are difficult for them, including how they rely on their cognitive strengths to compensate.
8. A person may have **difficulty compensating** for cognitive needs when:
 - a. A cognitive ability is very difficult (the need is severe)
 - b. The change in the cognitive ability is new or recent
 - c. A disorder creating the cognitive needs is severe
 - d. A disorder progresses and the cognitive needs increase in severity more quickly than this person can develop new strategies to compensate
 - e. This person has multiple disorders
 - f. This person's energy level or ability to cope is compromised due to emotional distress (such as anxiety, stress, or sadness), a physical disorder (such as the flu or pain), distraction, or fatigue
 - g. The conditions around this person (for example, the environment, interactions with this person, the task and daily schedule of routines) are not supportive or adapted to this person's cognitive needs and cognitive strengths (that is, they require this person to use cognitive abilities that are too difficult for this person, or they don't rely on or nurture cognitive abilities that are easier for this person).
 - h. There is a change in conditions around this person or in expectations of this person

- i. This person is unfamiliar with the situation or the challenges
9. Many disorders have changes in cognitive strengths and needs as symptoms. These disorders include **neurological disorders** (such as Stroke, Dementia, Autism, Attention deficit disorder, Down syndrome, Dyslexia, Traumatic brain injury) and **psychiatric disorders** (such as Schizophrenia, Obsessive compulsive disorder, Bipolar disorder, Depression, Schizoaffective disorder). Even **conditions** such as **pain**, side effects of **medications**, **grief**, **dehydration**, **infections**, and **metabolic disorders** (such as diabetes or a deficiency of vitamin B12) can cause changes in cognitive abilities.
10. We can **use observation** to learn about a person’s cognitive abilities, including how this person compensates.
11. Evidence of a person’s ability to use various cognitive abilities and to compensate for their needs is described below. These suggestions pertain to **all persons** whether or not they are living with a disorder.

FOR MORE INFORMATION:

12. For more details and specifics see the *Cognitive Abilities and Intervention Strategies (CAIS): Questions to Ask* and *CAIS: Intervention Strategies* by S Weaverdyck. The *Cognitive Abilities* part of the CAIS gives more **specific questions to ask yourself** as you observe a person and their cognitive abilities. The *CAIS: Intervention Strategies* provide specific interventions (support strategies) that systematically modify the environment, task, and interactions that are individualized to this particular person’s cognitive strengths and needs.
13. More details and specifics are also in the **other CAIS Handouts** by S Weaverdyck including: “**#3 Cognitive Abilities Listed**”; “**#4 Understanding Cognitive Abilities**”; “**#8 The Brain and Cognitive Abilities**”; “**#26 Emotions**” for how to recognize subtle and nonverbal evidence; “**#31 Task Complexity and Intervention Method**” that describes parts of a task and what can make a task difficult; “**#12**” about how to help a person, with rationale for specific interventions; “**#1 Messages about Cognitive Intervention**”; and **CAIS handouts about interventions** for specific cognitive abilities, such as “**#29 Visual-Spatial Interventions**”.
14. The *CAIS Questions to Ask* and *CAIS: Intervention Strategies* and **all the CAIS Handouts**, as well as many other resources are on the Michigan website called Improving MI Practices at <https://www.improvingmipractices.org>

SUGGESTIONS OF WHAT TO LOOK FOR

15. Evidence of a person’s **cognitive abilities** (their **strengths** and **needs**) can be observed in this person’s:
 - a. **Body language and voice**
 - b. **Hypo- or hyper-sensitivity** to stimulation of each of the **five senses**
 - c. **Task performance**
 - d. **Behavior** that others may find distressing and in behavior of others this person finds distressing
 - e. **Responses** to and effects of modification of the **conditions** surrounding this person and situation (for example, the environment, task, and interactions between this person and others)
 - f. Specific strategies to **compensate** for and accommodate their cognitive needs
 - g. **Strengths**
 - h. **Improvement in some cognitive abilities** that are enhanced as they compensate for and adapt to their cognitive needs.
16. Become familiar with how easy or difficult various cognitive abilities were for this person throughout **most of their life**. Include before they experienced significant cognitive change or acquired a disorder.
17. **Watch** this person **closely** for evidence of their current strengths and weaknesses and their compensation strategies regarding their performance of various cognitive functions.
18. Look to see how well this person (through their brain and body):

- a. **Receives** information from their environment through their **five senses** (sensory abilities)
 - b. **Recognizes** and understands the information (perception and comprehension)
 - c. **Analyzes** the information and uses it to make decisions (executive abilities)
 - d. **Tells** their **body** how to respond (expressive abilities)
 - e. **Moves** their **body** in **response** to instructions from their brain to their body (motor abilities)
19. Try to discern **which cognitive abilities** are easy for this person and which are difficult.
 20. **Listen** closely to what this person says and how their voice sounds, such as pitch, volume, and pacing.
 21. Watch this person's **body language** at all times and note when they become tense. Watch their entire body, but especially their face, eyes, and hands to recognize confusion, anxiety, or irritation. For example, their eyes may close, dart left and right, blink, or develop a frown.
 22. Note how this person **responds** to **stimulation** of each of the **five senses** (that is, hearing, seeing, touch, smell, and taste). They may be hypo-sensitive or hyper-sensitive. This altered sensitivity may occur when the stimulation first reaches a person's body, or when the information is received or processed by their brain. It may or may not reflect weakness in higher more complex cognitive abilities.
 23. When this person is **hypo-sensitive**, note what it takes for them to notice and attend to the stimulation. They may appear to be ignoring the stimulation, or it may be difficult to get their attention and to keep their focus on it. For example, they may not respond to you when you talk to them, or may not hear certain words or sounds. They may not notice objects in certain parts of their visual field. They may not notice that you are touching one side or certain parts of their body. They may not notice when something is burning on the stove. Food may have lost all flavor or certain flavors.
 24. When this person is **hyper-sensitive**, note ways in which they seem to avoid stimulation or become distressed in response to stimulation. For example, does this person suddenly get angry when a **noise** begins, such as a fan or footsteps in the hall? (The noise may be so subtle or common, you don't even notice it, but to this person, it may sound very loud, painful, or irritating like a finger scraping a chalk board.) Is this person sensitive to **visual** stimulation? Does this person maintain eye contact with you, or do they tend to look away or over your shoulder (perhaps because they can't tolerate looking directly at you)? Do they strike out or get angry when they are unexpectedly touched, especially on the foot or back or on one side of their body? (The **touch** to them may feel startling, or like a hard hit or pins and needles running out from the spot they were touched.) Are they at times unusually sensitive to **smell**? Do they get anxious or angry when they encounter particular odors in their environment, or react strongly to certain people or common objects that carry subtle fragrances? (They may carry with them herbs or other objects that have a strong fragrance in an effort to block out odors they find obnoxious or upsetting.) Do they refuse to eat certain foods or accuse you of poisoning them because some liquids or foods **taste** unusual or bad to them? Are they sensitive to certain flavors, such as burnt toast? At times some foods might taste bitter, for example, or some savory flavors may always taste bitter to them when they don't to other people. (This person's sensory experiences might cause distress due to brain functioning, cognitive changes, physical pain, emotions, or to past physical, emotional, or sexual discomfort, pain, or trauma.)
 25. Watch this person closely while they are **performing a task**, or you are helping them with a task, even if it is simply singing a song, watching others in the room, getting dressed, or listening to someone talk.
 26. Look for **unusual or unexpected ways** in which this person is performing a task. Each aspect of the task performance that is unusual may not indicate cognitive need, but taken together, they may be evidence of possible cognitive needs that could be examined more closely. For example, when this person regularly sits farther away from the table than most people would, you might explore further to see if this person has visuospatial needs.
 27. Look for **unusual aspects** of the task performance that are somewhat **consistent** for this person. For example, they very often sit farther away from the dining room table. When someone pushes their chair closer, they may push it back out again.

28. Look for **evidence** they are having **difficulty** with a task or particular parts of a task, and therefore, likely having difficulty with a cognitive ability. For example, when you place the dinner plate directly in front of this person when they are sitting at the table to eat, notice how they eat off their plate to observe evidence of visuospatial needs. Do they eat off part of the plate first, then start eating off other parts of the plate? Do they seem to ignore certain parts of their plate?
29. Look for evidence of **difficulty** that is somewhat **consistent** for this person. With brain changes, there is often inconsistency in a person's ability to perform a task, in part because the brain may be more sensitive to temporary conditions such as distraction or fatigue. For example, this person may sometimes be able to put their shirt on easily, and other times they have more difficulty. When this person consistently has difficulty performing a task, then the cognitive abilities required to perform the task are more likely weak.
30. Examine the task this person has difficulty performing, and note **which parts** of the task seem to be particularly **difficult**. That is, what makes the task difficult for them? The nature of the parts of the task that are difficult can suggest which cognitive abilities are likely weak. For example, they may not have difficulty seeing where the shirt is on the bed, but they have difficulty aiming for the shirt with their hand when they reach for it.
31. When the same **parts** of the task seem to be somewhat **consistently difficult** for this person whenever they perform the task, then the cognitive abilities required to perform those parts of a task are likely weak.
32. Note **consistency** or **similarity** in aspects of the **parts** of a task that are difficult **across various tasks**. For example, this person seems to have no difficulty seeing their shirt on the bed, but they do have difficulty aiming for it and reaching it with their hand. This same person seems to have no difficulty seeing the beans on their dinner plate, but they do have difficulty aiming for the beans and reaching them with their fork. This similarity suggests the cognitive abilities that coordinate the information received from the eye with the information given to the hand to aim and reach for an object are weak.
33. Look for which tasks or parts of tasks are **particularly difficult** or **consistently difficult** when this person is **fatigued**. It is usually harder to compensate when a person is tired, so the cognitive need may become more apparent to the observer.
34. When examining a task and its parts for difficulty, note the **task steps** (steps that when performed in a particular order make up the task), **task objects** (objects required to perform the task), and **parts of the body** this person is required to use when performing the task.
35. Look to see if this person seems to be consistently **working hard** at a task or at part of a task. A person may have to work harder to perform some tasks or parts of tasks in order to compensate for a weak cognitive ability.
36. Note which tasks or parts of a task this person performs more **slowly**.
37. Note when this person seems to **concentrate** more. That is, which tasks or parts of a task require more focus and concentration from this person? Cognitive needs are more likely evident when a person can only do one task or one part of a task at a time. For example, they may look only at the task object they are using and avoid glancing around or glancing toward a noise from somewhere else. They are less able to hold a focus on you or to hold a conversation when they are performing a particular part of a task.
38. Note how **carefully** this person performs each part of a task. A person is usually more careful and deliberate during those parts of the task that are more difficult for them.
39. When a person is **easily distracted** from a task, it may be because of cognitive needs. For example, this person may have more difficulty eating when other people are around or when other people are talking.
40. Note when during a task, that is during which parts of a task, they consistently become confused or **unable to continue** the task if they are **interrupted** or **distracted**.
41. Look for **distressing situations** and **behavior** as evidence of **cognitive needs**. Distressing behavior may be behavior that reflects distress within this person or that creates distress for this person or for others. A person with cognitive needs may become confused, frustrated, angry, anxious, or nonsensical when the **conditions** around this person don't match or accommodate this person's cognitive strengths or needs.

The conditions may be **too demanding** and this person simply cannot perform the cognitive functions required to do a task in those conditions (or **not demanding enough** resulting in boredom). The conditions, that is the **environment, your interactions** with this person, or the **task** itself may be too complex for this person's cognitive abilities to process. For example, this person may withdraw or resist when someone is talking too fast or too loud. They may begin piling food rather than eating it when there are too many food items on their plate. They may chew for long periods of time without swallowing when they cannot think how to swallow the food because they were distracted after they put the food in their mouth. They may strike out, shout, or cry when a spoon is brought to their lips because they could not judge where or how fast the spoon was coming at them. They may take their clothes off or get suddenly angry when someone touches them because they are hypersensitive to touch and the feel of some cloths or surfaces against their skin. They may refuse to take a bath or shower because they can't imagine how to do all the task steps. (Other needs such as hunger or pain may also cause distress.)

42. **Evidence that conditions don't adequately accommodate a person's cognitive** abilities include: fatigue, withdrawal, lethargy, emotional distress, anxiety, confusion, irritation, reduced success in performing a task or task step, distressing behavior and a person's response to the behavior of others.
43. **Modify the conditions** around a person **in a systematic way** to see if this person's fatigue, emotions, behavior, ability to perform a task or particular parts of a task change. For example, add cues or information to the environment to clarify where an object is and how fast it is moving, talk more slowly or with simpler words to this person, tell this person and give them time to prepare when you are going to touch them, suggest each task step at a time rather than the whole task at once, or put fewer items on the dinner table when this person is trying to eat.
44. Look for **strategies** this person seems to use to **compensate** for the cognitive abilities that are weak. For example, when you place the dinner plate directly in front of this person when they are sitting at the table, do they immediately or gradually over time move the plate to one side, so the plate is in a part of their visual field that they see more easily? Does their hand or finger rest on the table next to the plate so they can touch the plate to help keep them oriented to the location of the plate? Do they lean over their plate in case food drops?
45. Look closely for evidence of compensation and **avoid misinterpreting it as primarily a weakness**. The evidence can sometimes be complex and subtle. For example, this person may sometimes perform a task or parts of a task with **less variation** in speed, style, and order of task steps in order to compensate. They may sometimes avoid pauses or a natural rhythm and cadence to their movements while performing a task. For example, while eating, this person might sit still in one place with their head barely moving. They might slowly, steadily, and methodically bring the spoon with food (and sometimes without if the food fell off) to their mouth at a pace that varies minimally and has few pauses or deviations in pattern. When the food is gone they will stop, unless their ability to stop when a task is done is weak, in which case, they may keep bringing the empty spoon to their mouth in a repetitive motion.
46. **Examine and learn** from the **compensation strategies** you see. Consider which cognitive abilities or which types of cognitive abilities are weak and how they might benefit from the compensation strategies this person is using. For example, when this person gets upset because you moved something in the environment, watch this person to see if they use a subtle memory for location that lets their hand find an object because it is always in the same place.
47. **Use a person's own compensation strategies** whenever possible, rather than making up your own. If this person tends to walk along the wall so they can periodically touch the wall to verify their location in space as they move down a hallway, avoid encouraging them to walk down the middle of the hallway and to rely on your verbal cues regarding where objects are in front of them. Make sure objects, such as chairs are removed from the hall, so they can walk along the wall more safely and easily.
48. **Avoid changing or "fixing" a person's compensation strategy**. For example, avoid moving a person's plate to a position in front of them on the table. Let the plate stay off to the side where this person put it.

49. Try to see this person's task performance or behavior as **evidence of cognitive strengths and needs** and evidence of **compensation strategies**, rather than simply an inability, a problem, or a difficult behavior.
50. Remind yourself this person usually is **trying to do the best they can to improve their ability** to function and to feel comfortable. Their work to improve a situation (that is, the development of their compensation strategies) is often subtle and complex. Usually they are not aware of it themselves. They rarely can talk about it in a way that is easy to understand.
51. Even when this person seems to be giving up or acting as though a task is more difficult than you think it really is for them, remind yourself there may be aspects of the situation you are unaware of at the moment. Or they may be giving themselves a **rest**, a **chance to absorb** their challenge more slowly, or **time to create compensation strategies** to meet the challenges. They may have difficulty keeping up with the changes in the challenges they face. Try to trust a person's efforts and to **help them**, rather than to change them.
52. **Look for strengths** rather than simply weaknesses in a person's ability to function and to feel comfortable and competent.
53. Note the **effects of cognitive interventions** that:
 - a. **Help this person grow** in their ability to perform some cognitive functions and to acquire new skills or strategies that (at least temporarily) accommodate changes in other cognitive abilities. For example, increase the contrast between an object and its background, so the ability to scan an area to find an object is more often used and improves, as the ability to remember where an object is declines. Or nurture artistic, musical, and singing skills as speech declines.
 - b. **Rely on a cognitive ability that is strong.** For example, point to an object as you name it, if this person doesn't recognize the object when they see it, but does recognize the name of the object when it's said aloud.
 - c. **Make a particular skill, cognitive ability, or task step easier.** For example, sing a rhythmic song with a person on the way to lunch, so walking becomes easier.
 - d. **Compensate** for a cognitive need by performing the function or task step for this person. For example, button this person's shirt for them.