RECOGNIZING COGNITIVE ABILITIES

Suggestions for
Recognizing Evidence of a Person's Cognitive Impairment & Strengths

Shelly Weaverdyck

TO KEEP IN MIND

1. **We all have cognitive impairment**. None of us has a brain that can perform every cognitive function perfectly. Each of us has specific cognitive functions we prefer or that are easier to perform successfully.
2. Since birth, **each person has learned to compensate** for or adapt to the cognitive functions that they do not perform as easily. For example, if a person has trouble sensing direction, they use maps or a detailed list of roads and turns to take to get to their destination.
3. When a person acquires **new impairment** in the ability to perform cognitive functions, they will again develop strategies to compensate for or adapt to the new impairment. 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.
4. 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.
5. We can learn about a person's cognitive impairment by **observing how they compensate** for it.
6. A person may have **difficulty compensating** for impaired cognitive functions when: a cognitive function is severely impaired, a disorder causing the cognitive impairment is severe, the disorder progresses and the cognitive impairment increases in severity more quickly than a person can develop new strategies to compensate, a person has multiple disorders, or when a 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), or fatigue.
7. Many disorders have cognitive impairment 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 cognitive impairment.
8. We can **use observation** to learn about a person's cognitive functioning and how they compensate.
9. Evidence of a person's ability to perform various cognitive functions and to compensate for their impairment is described in this handout. This **evidence can be observed in** a person's:
    a. **Body language** and **voice**
    b. **Hypo- or hyper-sensitivity** to stimulation of each of the **five senses**
    c. **Task performance**
    d. **Behaviors** that others may find difficult and in specific behaviors of others they find distressing
    e. **Responses** to and effects of modification of the **conditions** surrounding this person and situation (for example, the environment, task, and interactions between the person and others)
    f. Specific strategies to **compensate** for and accommodate their cognitive impairment
    g. **Strengths**
    h. **Improvement in some cognitive functions** that are enhanced as they compensate for and adapt to the impaired cognitive functions.

SUGGESTIONS FOR WHAT TO LOOK FOR

10. Become familiar with how well a person performed various cognitive functions throughout **most of their life**, including before they acquired a cognitive disorder.
11. **Watch a person closely** for evidence of their current strengths and weaknesses and their compensation strategies regarding their performance of various cognitive functions.
12. Look to see how well a person **receives** information from the environment through their **five senses**, how well the **brain recognizes** the information, **analyzes** the information and makes a decision about it, **tells the body** how to respond, and then how well the **body responds** to instructions from the brain.
13. Try to discern **which cognitive functions** a person can do easily and which are difficult.
14. **Listen** closely to what a person says and how their voice sounds, such as pitch, volume, and pacing.
15. Watch a 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.
16. Note how a 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 the brain. It may or may not reflect impairment in higher more complex cognitive functions.
17. When a 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.
18. When a 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 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? They may do this 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? They may be very 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.
19. Watch a 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.
20. Look for **unusual or unexpected ways** in which a person is performing a task. Each aspect of the task performance that is unusual may not indicate cognitive impairment, but taken together, they may be evidence of possible cognitive impairment that could be examined more closely. For example, when a person regularly sits farther away from the table than most people would, you might explore further to see if this person has visuospatial impairment.
21. 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.

22. Look for **evidence they are having difficulty** with a task or particular parts of a task, and therefore, likely having difficulty with a cognitive function. For example, when you place the dinner plate directly in front of a person when they are sitting at the table to eat, notice how they eat off the plate to observe evidence of visuospatial impairment. 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?
23. Look for evidence of **difficulty** that is somewhat **consistent** for this person. When the brain is impaired, there is often inconsistency in a person's ability to perform a task. For example they may sometimes be able to put their shirt on easily, and other times they have more difficulty. When a person pretty consistently has difficulty performing a task, then the cognitive functions required to perform the task are likely impaired.
24. Examine the task a 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 functions are likely impaired. 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.
25. When the same **parts of the task** seem to be somewhat **consistently difficult** for this person whenever they perform the task, then the cognitive functions required to perform those parts of a task are likely impaired.
26. Note whether there is some **consistency or similarity** in the nature 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 impairment in the cognitive functions that coordinate the information received from the eye with the information given to the hand to aim and reach for an object.
27. Look for which tasks or parts of tasks are **particularly difficult** or **consistently difficult** when a person is **fatigued**. It is usually harder to compensate when a person is tired, so the impairment often becomes more obvious to the observer.
28. 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** a person is required to use when performing the task.
29. 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 an impaired cognitive function.
30. Note which tasks or parts of a task this person performs more **slowly**.
31. Note when this person seems to **concentrate** more. That is, which tasks or parts of task require more focus and concentration from this person? Cognitive impairment is 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.
32. Note how **carefully** a person performs each part of a task. A person usually does those parts of the task with which they have difficulty more carefully and deliberately.
33. When a person is **easily distracted** from a task, it may be because of cognitive impairment. For example, this person may have more difficulty eating when other people are around or when other people are talking.
34. 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**.

35. Look for **difficult behaviors as evidence of cognitive impairment**. Difficult behaviors may be behaviors that reflect distress within a person with cognitive impairment or that create distress for the person with cognitive impairment or for others. A person with cognitive impairment may become confused, frustrated, angry, anxious, or nonsensical when the **conditions** around the person don't match or accommodate the person's level of cognitive functioning. The conditions may be **too demanding** (or **not demanding enough** resulting in boredom) and the person simply cannot perform the cognitive functions required to do a task in those conditions. The conditions, that is the **environment**, **your interactions** with this person, or the **task** itself may be too complicated for this person's cognitive functions to process. For example, a person may begin piling food rather than eating it when there are too many food items on the 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 they would do all the task steps.
36. **Evidence that conditions don't adequately accommodate a person's cognitive functioning** include: fatigue, withdrawal, lethargy, emotional distress, anxiety, confusion, irritation, reduced success in performing a task or task step, distressing behaviors and a person's response to the behaviors of others.
37. **Modify the conditions** around a person **in a systematic way** to see if a person's fatigue, emotions, behaviors, 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 the person, warn the person and give them time to prepare when you are going to touch them, suggest they do each task step rather than the whole task at once, or put fewer items on the dinner table when the person is trying to eat.
38. Look for **strategies** a person seems to use to **compensate** for the cognitive functions that are impaired. For example, when you place the dinner plate directly in front of a 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?
39. Look closely for evidence of compensation and **avoid misinterpreting it as primarily an impairment**. The evidence can sometimes be complex and subtle. For example, a person with cognitive impairment will 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 will sometimes avoid pauses or a natural rhythm and cadence to their movements while performing a task. For example, while eating, a person might sit still in one place with their head barely moving. They might slowly, steadily, and methodically bring the spoon with food (and sometime 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 impaired, in which case, they may keep bringing the empty spoon to their mouth in a repetitive motion.
40. **Examine and learn** from the **compensation strategies** you see. Consider which cognitive functions or which types of cognitive functions are impaired and how they might benefit from the compensation strategies this person is using. For example, when a 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.
41. **Use a person's own compensation strategies** whenever possible, rather than making up your own. If a 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.

42. **Avoid changing or "fixing" a person's compensation strategy**. For example, avoid moving a person's plate to a position directly in front of them on the table. Let the plate stay off to the side where the person put it.
43. Try to see a person's task performance or behavior as **evidence of cognitive functioning and evidence of compensation strategies** for cognitive impairment, rather than simply an inability, a problem, or a difficult behavior.
44. Remind yourself a 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.
45. Even when a person seems to be giving up or acting more impaired than you think they really are, 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. Often, they cannot keep 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.
46. **Look for strengths** rather than simply weaknesses in a person's ability to function and to feel comfortable and competent.
47. Note the **effects of cognitive interventions** that:
    a. **Help a person grow** in her/his ability to perform some cognitive functions and to acquire new skills or strategies that (at least temporarily) accommodate changes in other cognitive functions (for example, increasing 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 nurturing artistic, music, and singing skills as speech declines).
    b. **Rely on an intact cognitive function** (for example, pointing to an object as you name it, if this person doesn't recognize the object when she/he sees it, but does recognize the name of the object when it's said aloud).
    c. **Make a particular skill, function, or task step easier** (for example, singing a rhythmic song with a person on the way to lunch, so walking becomes easier).
    d. **Compensate** for a cognitive impairment by performing the function or task step for this person (for example, buttoning this person's shirt for her/him).
48. See the handout "Messages about **Cognitive Intervention**" for a basic understanding of cognitive intervention.
49. See the S. Weaverdyck **Cognitive Impairment Assessment Protocol** (CIAP) for Cognition for more specific questions to ask yourself as you assess cognitive functioning.
50. See the S. Weaverdyck **Cognitive Impairment Intervention Protocol** (CIIP) for specific interventions that systematically modify the environment, task, and interactions with a person with cognitive impairment.
51. See the handout "**Task Complexity and Intervention Model**" that describes parts of a task and a model that describes what makes a task difficult for persons with cognitive impairment.
52. See the handout "**Cognitive Impairment: Cognitive Functions**: Five phases of Cognitive Processing" for a list of some cognitive functions that might be impaired.
53. See **handouts for interventions** for specific types of cognitive functions, such as "**Visual-Spatial Interventions**: Suggestions for Helping Someone with Impairment in Visuopsatial functioning".