A Protocol for Assessing Metaphoric Use of Pictures:
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Pictures are commonly used to represent language. A variety of picture sets and systems are used within the field of AAC. Many AAC systems use Single Meaning Pictures (SMPs) to represent words, phrases, and sentences, tapping into language metaphors represented by that picture. When using a Minspeak device, these picture metaphors are used *systematically* to represent language. This systematic use of picture metaphors requires significantly fewer pictures to learn in order to communicate a large body of vocabulary. However, it requires teachers, parents, and therapists to re-think how they assess for and use pictures.

All of these pictures need to be organized in some way. With dynamic display devices, that are organized like pages in a book, categorized by part of speech (e.g., verbs), activity (e.g., ordering in a restaurant), and/or semantic group (e.g., foods). To talk independently, the person needs to understand the categorical system and complete the steps required to navigate back and forth between screens. When using a Minspeak device, the pictures are combined in sequences to reduce the need for screen after screen after screen of pictures. This sequencing often reduces the memory demands and number of steps required to produce language; however, it once again requires teachers, parents, and therapists to re-think how they assess for and use pictures.

The Minspeak way of using pictures often triggers the question: "What do you do to assess whether or not a person can use Minspeak?" There are several responses to that question.

Response 1: "How do you do a good language assessment, including assessing for picture use? "

A comprehensive language assessment is a critical part of an AAC assessment. Information should be gathered about the person's overall communication, language, and interaction skills; as well as their social communication network and language support system. All of that information helps determine how to develop appropriate AAC strategies.

Once you document the kind of language the person understands and produces, then you are on your way to selecting a strategy for representing that language. Many language assessment protocols, including standardized tests like the Peabody Picture Vocabulary, focus on words that are easily represented with pictures (e.g., nouns, some verbs, some adjectives). But producing language requires the use of words that are not easily represented with pictures. You need to probe further to determine how the person is going to communicate words that are not picture producers.

Response 2: "Teaching is the major component of the Minspeak assessment process. A Minspeak Assessment is not a 'one-shot' assessment with a specific test. Rather, it is a process of adjusting the programming in the Minspeak device to accommodate for the person's needs, strengths, and weaknesses. " (Laura Meyers, Ph.D., 2001 Pittsburgh Employment Conference).

Pictures on a Minspeak system are used systemically to represent more than 1 word; therefore, each picture might reflect several language metaphors. These multiple meanings and metaphors are not **guess-able**, but they should be **teach-able.** This protocol is NOT a one-shot assessment, but a tool to develop insight into the strategies needed for teaching a Minspeak system.

Response 3: "What strategies do you already use for assessing categorization? How do you currently evaluate a person's ability to complete multiple steps to locate and select words on an AAC device?"

An evaluation of a person's cognitive skills often includes probes into the person's ability to classify objects into groups and complete multiple-part directions. These abilities are foundations for understanding how vocabulary is organized in an AAC device and retrieving that vocabulary independently.

Many dynamic display device requires the person to navigate from screen to screen to screen in order to talk. The dynamic display device might have screens organized by activity, environment, or word categories. Generally, the ability to use a dynamic display device assessed by having the person use the device. The same holds true for a Minspeak device. You assess the person's ability to understand the organization and sequencing of a Minspeak system by trying a Minspeak system.

There are many resources and tools to assist professionals in doing a language and AAC assessment. Any ethical assessment which places the needs and concerns of the client above all else should always consider a Minspeak system.

Protocol Guidelines

The following protocol provides the evaluation team with a **profile** of critical areas of the person's language, which includes teaching sessions using a Minspeak device.

Pictures in this protocol were taken from a variety of Minspeak programs. However, it is NOT the pictures that are important in the process, rather it is the way that the pictures are used and the language they are used to assess. You can create sets of your own pictures.

The protocol requires use of a Minspeak device. The protocol is based primarily on use of Unity128 in a Pathfinder. A Vanguard, Vantage, Springboard, or ChatBox 40 could also be used in the assessment, but will require some adjustments in this protocol.

The profile protocol involves the following 10 steps:

1.   Picture identification by label
2.   Picture identification by action and description
3.   Picture association for visual, experiential, & cultural concepts
4.   Teaching pictures for more non-picture producing concepts
5.   Classification of concepts represented with pictures
6.   Identification of words by part of speech
7.   Production of syntax and grammar with the help of a visual aid
8.   Identifying critical vocabulary needs
9.   Trial teaching

Steps 1 -2 look at simple picture identification, focusing on nouns that are picture producers, along with simple verbs and adjectives. The same set of pictures are used for both identification of nouns and later again for the verbs and adjectives. The person's responses show his/her ability to see multiple meanings in single pictures - a fundamental aspect of Minspeak.

Steps 3 – 4 begins to look at the person's current ability (and required teach-ability) to using pictures to represent non-picture producing concepts that are visual, experiential, or cultural. The person's responses reflect both his/her language skills as well as his/her experiences and/or teach-ability to representing these ideas with pictures.

Step 5 collects information about the person's ability to classify words and concepts, focusing on semantic categorization and sub-categorization.

Steps 6 - 7 profiles the person's ability to code words by part of speech and produce sentences with an bit of grammatical organization. Individuals who have had manual boards or previous AAC technology organized with single words will do better than individuals who have never been taught syntax and grammar.   It begins to introduce the using the vocabulary in a Minspeak device. The visual materials are used to

promote successful retrieval of the vocabulary in repetitive patterns to build some motor learning and automaticity in talking.

Step 8 focuses on identifying words that are important to the person to learn. Words not already in the Minspeak device (such as family names) should be added.   Children and adults need this kind of motivation to tackle the hard job of learning a new way to communicate.

Step 9 is all about teach-ability. A systematic, regular, and frequent teaching regiment should be developed that focuses on teaching Minspeak - not accessing or other issues that could cloud the decision making process. Use home made and commercially available teaching materials. See www.vantatenhove.com for ideas on materials.

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Specific Directions

1. **The person identifies pictures for picture producing words.**
   - Question: Does the person have the basic language to identify pictures by label?
   - Templates: 1, 2, 3
   - Prompt: Show me the X.
   - Criteria: Failure at this level suggests a deep language deficit that might altogether eliminate the use of pictures to represent language.

2. **The person associates an action and/or descriptive concept with pictures of picture producing words.**
   - Questions: Can the person see an action concept and/or a descriptive concept in a picture? If given the same set of pictures which he/she previously identified by label, can he/she identify them by an action word and/or a descriptive word?
   - Templates: 1, 2, 3
   - Prompt: Show me which one makes you think about (e.g., eating, being hungry, etc.).
   - Criteria: The person does not need to get these "right" to pass. This part of the test is looking at "guess-ability," which is not a criteria to use Minspeak. Teachability is what is important. But, by having the person guess the right picture, you are looking for a basic pattern of "rightness" and/or a logic for how he/she associates concepts to pictures. It is NOT a criteria that the person get specific answers right or wrong. Do enough of these items to determine whether or not the person see multiple meanings in pictures, then move on.

3. **The person associates non-picture producing concepts with single-meaning pictures, based on visual, experiential or cultural metaphors.**
   - Questions: What kind of visual, experiential, or cultural metaphors does the person identify already? How much teaching will it take for the person to learn the metaphor and picture for these concepts?
   - Templates: 4, 5, 6, 7
   - Prompt: Show me which one make you think about (in, under, being with, big)?
   - Criteria: If the person is having a hard time with this part of the assessment, shift to "teaching mode." Talk about each of the pictures and do a simple teaching activity. Then come back later and see if the person retained what you taught him/her.

4. **The person identifies pictures for non-picture producing concepts after being taught the metaphors with the pictures.**
   - Questions: How much teaching does it take to learn the these metaphors? Does the person seem to understand this language?
   - Templates: 8, 9, 10

- Prompt: Explain to the person that you don't expect him/her to guess these words. Rather, you will teach them and then come back later and see how well the person remembers. Use some simple teaching activities that make the learning fun and memorable, like guessing "who" came in the room, finding "where" you hid something, asking people "how old" they are, etc. Create your own culturally and personally relevant metaphors, or use the ones listed below for each of the templates.
- Template 8: Question words
    1. who - The bad guy on the poster is *who* the police are looking for. Do you know *who* he is?
    2. when - Check your watch *when* you want to know what time it is.
    3. where - The map shows *where* the treasure is buried.
    4. why - Think and think until you understand *why*.
    5. which - Point at *which* thing you want, this one or this one?
    6. how many - Look at the night sky and count *how many* stars there are.
    7. how old - *How old* do you think he is?
    8. how much - *How much* money do you have?
- Template 9: Time words
    1. winter – There is snow on the mountains in *winter*.
    2. spring – The flowers come out in *spring*.
    3. summer – It is hot enough to go swimming in *summer*.
    4. fall – We pick apples from the trees in *fall*.
    5. morning – The sun comes up every *morning*.
    6. night – The stars come out at *night*.
    7. tomorrow – The day coming up is *tomorrow*
    8. yesterday – The day in the past is *yesterday*.
- Template 10: Pronouns
    1. I (male and female) – *I* point to myself.
    2. you – I point at *you*.
    3. he – *He* is a boy.
    4. she – *She* is a girl.
    5. it – *It* is an animal and we don't know if *it* is a boy or girl.
    6. we – *We* are friends and *we* hug each other.
    7. they – *They* are a group of people and *they* are over there.

5: The person groups identifies a picture for a semantic category and groups pictures into logical categories and sub-categories.
- Questions: How good is the person's categorization? How much teaching and prompting is necessary?
- Templates: 11, 12
- Prompt for Template 11: Ask the person to find the picture for the main category.
- Prompt for Template 12: Ask the person to find the icon for the FOOD category from row 1, then each of the sub-categories from row 2. Cover the un-used rows, as necessary. Using the Minspeak device, ask the person to say the

words represented in row 3, by selecting the Category icon (apple), then the sub-category icon from the Activity Row.   If necessary, probe further using the other categories (i.e., vehicles, animal, body parts) and sub-categories of each Activity Row.

- Criteria: If the person can not categorize, it suggests that the person may have trouble selecting the first icon of sequences. For some very young children, you may want to start with a one-hit program because developmentally this level of cognitive ability is beyond what would be normally expected for their age.

6: The person identifies parts of speech in pre-developed sentences.

- Question: Does the person understand words as belonging to different grammatical categories.   Does the person have this metalinguistic knowledge? How much teaching is necessary to learn these categories of words and pictures? Does it help to define the parts of speech with a word picture (verbs = an action word, preposition = a bridge word) or human characterization (verbs = Mr. Action Man, preposition = Bob the Builder word.)
- Templates: 13, 14
- Prompts: Cover up rows, as needed, to focus on each single item.
  1. Verbs: Find the action word. It is what Mr. Action man does in the sentence.
  2. Prepositions: Find the little word that tells me where. It is a bridge word, like "over" the bridge or "under" the bridge. Bob the Builder might have put it there.
  3. Nouns: Find the name of the thing. If it can go in Mother Hubbard's cupboard, it is a noun.
  4. Pronouns: Find the little word that stands for the name of the person.
  5. Negative: Find the little word that means "no way" or "not."
  6. Adjective: Find the little word that describes and paints a picture, like an artist, so I can imagine it.
- Criteria: This probe continues to look at pictures that code verbs, prepositions, nouns, pronouns, negatives, and adjectives.   The person should have been able to transfer previous learning to this task. If not, the person needs additional instruction on picture metaphors to build language independently.

7: The person can produce syntax and grammar using a device with prompts and teaching.

- Questions: Does the person have the potential to build his/her own messages using words? Does the person have some syntactical skills? Does the person communicate more with topic-comment constructions? What is the person's grammatical style?
- Template: 14
- Technology: At this point in the assessment, the person must use the Minspeak device. This protocol is based on Unity128 Sequenced, but can be adapted for any other Minspeak Application Program.

- Prompt: This section involves teaching. It is NOT assumed the person can do this without some teaching and the visual support materials. The sentences are in a simple 2-person script.
- Criteria: Observe the person's syntactical style. Does the visual display help them? How about the color coding?

8: The person can find words they value in the Minspeak device.
- Question: What words need to be added to the Minspeak device? What words are a top priority to learn how to say?
- Activity: Identify and program the key words in the device. Place picture producers in Activity Rows. Import photographs for key people, places, and things.

9: The person participated successfully in a trial teaching activities using Minspeak.
- Question: Has the person shown the potential to use a Minspeak device, based on the teaching protocol? What are the person's strengths and challenges? How will you adjust the Minspeak system to accommodate these challenges and maximize the strengths?
- Activity: Define a trial teaching protocol. A systematic, regular, and frequent teaching regiment should be developed that focuses on teaching Minspeak - not accessing or other issues that could cloud the decision making process. Use home made and commercially available teaching materials.