

## **Demystifying the Speech and Language Evaluation**

What exactly does a Speech and Language evaluation consist of?

When we are evaluating we need to look at the discrete skills, as well as how they all tie together. We tend to test in the child's strongest language. Formal testing procedures involve using standardized tests that must be administered in a quiet room free of distractions, in short blocks of time to avoid test fatigue. Norm-based tests provide standard scores and percentiles, criteria-based tests give cutoff scores or ranges of typical and atypical performance. We usually use age-based norms. Informal testing procedures include using clinical judgment to analyze parent or teacher report, work samples and any non-standard tasks or observations we do with the child. A complete evaluation will include both formal and informal procedures. The most common language evaluation tool we use is the Clinical Evaluation of Language Fundamentals – Fourth Edition (CELF-4) although the CELF-5 has recently been published so we will soon switch to that. Many of the tests we use are normed on American English speaking populations, although there is a Canadian French edition of the CELF that we use for French language evaluations.

Below we will describe important sections of a report. Note that our evaluation may not cover every section, depending on the needs of the child.

### **Historical Information**

We send home a detailed questionnaire to be completed by the child's parents or guardians. It is important to have the most complete picture we can of the child to make a clinical conclusion. We need to know how the child's language developed, what languages they speak or are exposed to, and whether there is a family history of language difficulties. We also ask about medical history, other developmental history and any other evaluations that may have occurred in case there are other issues that might contribute to the speech or language difficulties. We also summarize previous evaluations or services.

### **Attention and Behavior**

We discuss how the child worked during the evaluation and observations. We mention distractibility, signs of fatigue, successful behavior supports, etc. This is important to show that test findings are valid, as well as to give helpful information for anybody else who may work with the child.

### **Oral Motor Ability**

An oral-motor examination will identify or rule out structural and functional issues. Children are asked to carry out or imitate different mouth movements such as sticking out their tongue or switching between a smile and rounded lips. Some speech production tasks are also used to assess the child's production of connected speech sounds.

## **Phonology and Articulation**

If a full articulation evaluation is required we will most likely use the Goldman-Fristoe Test of Articulation – Second Edition (GFTA-2) in English or the N-EEL subtest Phonologie et articulation in French. Both these tests are simple picture-naming tasks that elicit examples of all speech sounds in all possible positions, and provide age-normed scores. We may also look at stimulability- how easily a child can correct an errored production given different techniques.

## **Receptive & Expressive Vocabulary**

We need to know a child's overall understanding of single words, as well as a child's ability to use the right word. For receptive vocabulary, the tests generally present four similar pictures and the student must select the one that matches the spoken word. For expressive vocabulary we generally use standardized picture-naming tasks that use different parts of speech (e.g. nouns, verbs). If the student is able to name a word in English or in French they will usually be given the score. A solid vocabulary base is crucial for all areas of learning. A child may also have good vocabulary knowledge but difficulty with word-finding, that is with efficiently accessing that knowledge. This child will have it on the "tip of their tongue", and benefit from either semantic (meaning) or phonologic (sound) cues.

## **Receptive Language**

Receptive language refers to language comprehension. We are looking at understanding of grammatical as well as semantic information. Some of the common subtests from the CELF-4 are:

***Concepts and Following Directions:*** The student is asked to carry out spoken directions that increase in length and complexity. This tests the students ability to process multiple details and temporal or spatial concepts.

***Word Classes-(Receptive):*** The student must select a pair of words with the closest relationship from a set of 3 or 4 words, with picture cues for some items. Relationships may be same category, synonyms, antonyms, part-whole, etc. This subtest uses pictures for earlier items, which can offer additional cues that may increase a child's performance.

***Sentence Structure:*** The student must select a picture that matches a given sentence from a set of 4 similar pictures. The given sentences will use a variety of structures, such as passive voice or embedding.

***Understanding Spoken Paragraphs:*** The student must answer questions about a short oral passage. The question types include remembering details and making inferences or predictions. Note that understanding language becomes more difficult in longer passages.

## **Expressive Language**

Expressive language refers to a child's production. We are looking for their ability to correctly use sentence structure rules, word endings, and correct word choice to adequately convey their meaning. Some of the common subtests from the CELF-4 are:

**Word Structures** This tests a student's use of morphology (word-level grammar rules, e.g. plural 's', possessive pronouns). The child is presented with a picture and an example sentence, and then must complete another sentence using the target structure.

**Recalling Sentences** The child is asked to repeat a sentence verbatim, since they must apply their own grammar rules to produce the sentence.

**Formulated Sentences** The child must produce a sentence using a target word about a given picture. Many different types of words are provided, and the student can obtain part marks. The picture is used so we can analyze the sentence meaning, and be sure that the student isn't just repeating a sentence they heard but don't understand.

**Word Classes-(Expressive)** The student must explain the relationship between the word pairs selected in the receptive portion. The student must be specifically describing the relationship (e.g. "they are both senses") not just each word separately. Note that this subtest was removed from the CELF-5.

## **Language Sample**

We try to elicit a longer portion of the child's speech to analyze. We may use picture books, toys, or just conversation encourage them to talk. We look at vocabulary choice, sentence structure, sentence length, clarity of meaning and staying on topic. We also compare to results from subtests to see if error patterns are maintained or not.

## **Reading Skills**

We will look at a child's decoding of words and nonwords. We also look at reading passages or short texts, measuring fluency and asking comprehension questions. There are normed tests and subtests that can measure these skills, and teacher or parent input is extremely valuable as well.

Phonological awareness skills are an important foundational skill for reading so we will often look at these skills as well. These include asking children to identify or produce rhymes, blend and segment syllables and sounds, and delete or substitute sounds and syllables in words. Rapid automatic naming tasks measure a student's ability to quickly name a series of well-learned words (often colours and shapes).

## **Writing Skills**

We look at a student's knowledge of spelling words. We look at their application of grammatical rules as well as punctuation and writing conventions. We may ask them to write to dictation, write sentences, correct sentences or write paragraphs or longer texts. We will compare their writing skills to their oral language skills. Work samples from class are also helpful.

## **Narrative Skills**

We look at a student's ability to create a narrative, including personal narratives such as what they did on the weekend. . We may use picture cues, provide examples and descriptions of what makes a good story, and ask them to re-tell a story as well. We will look at story elements, logical flow, how easy it was to understand, and their word choice.

## **Pragmatics**

This refers to the social rules of language use. We look at eye contact, staying on topic, ability to use language for a variety of purposes (greetings, asking questions, sharing information), tone of voice, facial expressions and other social aspects of language. We may also elicit information from teachers or parents with checklists. The CELF-5 also provides some ideas for tasks to do with the child and specific behaviours to analyze.

## **Voice**

This tends to be measured with observation. Voice quality is generally related related to structure and use. We look at nasality, volume, breathiness, raspiness, wetness, etc. or evidence of pain related to speaking. We can provide recommendations about good vocal hygiene but for actual voice concerns we will refer out.

## **Fluency**

This refers to stuttering. All people produce some typical dysfluencies (sentence revisions, word repetitions, etc.) although we would note them if they appeared to be occurring unusually frequently.

Atypical dysfluencies include part-word or sound repetitions, blocks (unable to produce the sound), prolongations (unusually extending the sound). We will also note any concomitant or secondary behaviours, for example changes in eye gaze or blinking, jaw or lip tension, extraneous movements. This tends to be measured with observation. A more in-depth fluency evaluation will elicit language samples and count the number and type of dysfluencies to determine overall severity. We can provide general recommendations for teachers and parents but therapy for fluency tends to be referred out.

## **Summary and recommendations**

We review all the findings and draw a clinical conclusion. We need to use both standard scores and clinical judgment to determine if there is a deficit, and the severity of the deficit. An

evaluation is like a snapshot of the child's current abilities, we need to explain what we see and account for all the factors. We refer as needed for additional evaluations. We provide an outline of therapy goals if therapy is recommended. We provide strategies and best practice for teachers and parents.