


Understanding Communication Skills

speech • fluency • voice • language • social communication • literacy

Most people use the words speech, language, and voice interchangeably. To professionals who work in the field of communication sciences and disorders, however, they mean very different things. The differences are very important for the identification of communication disorders and treatment programming. These terms and others are explained *briefly* below. Each of these communication domains are very complex. The purpose of this handout is to help you start to understand the complexity of human communication skills and to talk about your child's strengths and difficulties with your speech-language pathologist.

Speech

Speech refers to the production and perception of the individual sounds that make up words. For example, the word 'cat' has three sounds, /k/ /æ/ /t/. Speech sounds are not the same as letters. Sounds ('phonemes') refer to the acoustic pattern that have meaning – what we say and hear. Letters are written symbols ('graphemes') that *represent* spoken sounds and words in written language – what we write and read. For example:

		
written as cat		spoken as /kæt/
symbols used are the English alphabet		symbols used are the International Phonetic Alphabet

There are many more sounds than letters in Canadian English. For example, there are 5 vowel letters (a, e, i, o, u), but 14 vowel sounds!

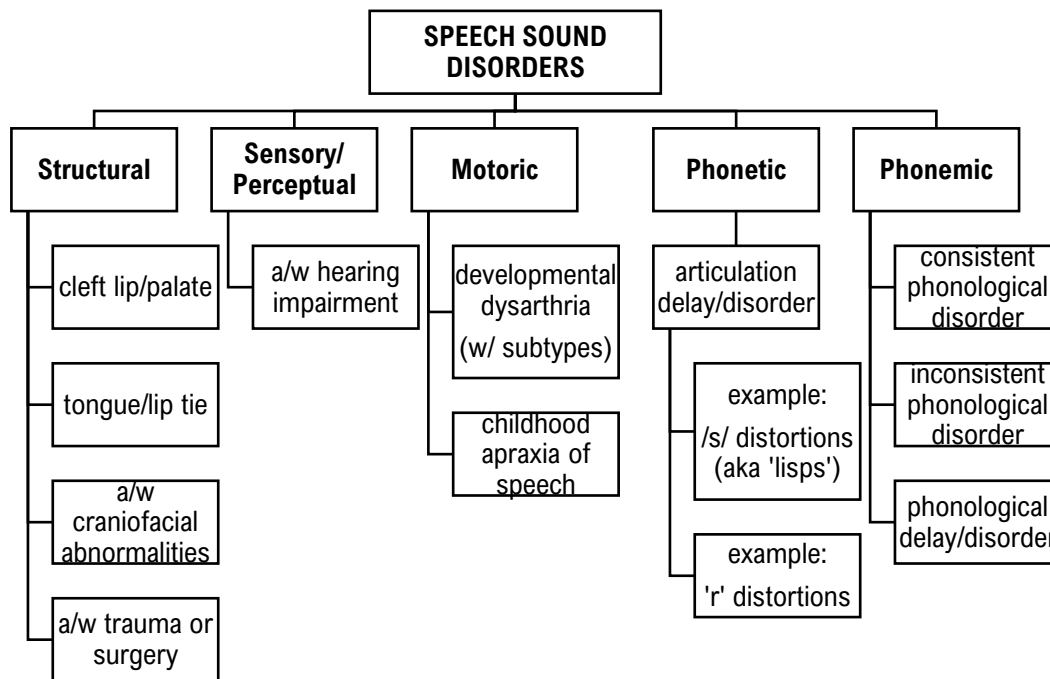
Articulation is how the mouth moves to produce these speech sounds. For example, when making the /t/ sound, one of the things required is for the tip of the tongue to touch the roof of the mouth just behind the upper front teeth. Articulation is precisely timed and coordinated. Examples of articulation errors include /s/ distortions (commonly called a 'lisp') and when a child has trouble saying their 'r' sound.

Phonology deals with our understanding of how speech sounds contribute to meaning. For example, that 'core' and 'tore' start with different sounds and thus have different meanings. An

example of a phonological error is ‘fronting’ in which a child replaces ‘k’ and ‘g’ sounds (made in the back of the mouth) with ‘t’ and ‘d’ sounds (made in the front of the mouth). The child may be able to say ‘k’ but they don’t understand yet that ‘t’ and ‘k’ change the meaning of the word.

There are many articulation and phonological errors that a child makes that are a part of normal development. For example, ‘fronting’ is considered normal up to age 3 ½ years.

Motor speech skills refers to the brain’s control of the structures involved in speech production (e.g., tongue, jaw, lips, teeth, voice box, soft palate). It includes the planning of movements (e.g., programming the speed, direction of movement, and amount of force required and the sequencing of all the movements required) and the execution of these planned movements (e.g., the tongue carrying out the brain’s direction to move tongue in a certain direction at a certain speed with a specific amount of force).



Fluency

Speech fluency deals with how fluent and free flowing speech is. When speech is *not* fluent, it is called ‘disfluent’. Some disfluencies are normal (e.g., when a young child revises what they are saying) and some are not, such as with stuttering. There are several fluency disorders including stuttering, cluttering, and end-of-word disfluencies.

Stuttering is the fluency disorder that most people have heard of. It is typified by core stuttering behaviours such as repetitions of sounds, syllables, and short words (e.g., “l-l-l-I’m coming.”),

prolongations of sounds (e.g., “caaaat”), and/or blocks (e.g., “-----Mike”). Stuttering can be accompanied by physical tension in the speech mechanism and behaviours like looking away or closing one’s eyes. Many people who stutter develop negative thoughts, emotional reactions, and avoidance behaviours related to speaking. Intervention programs for stuttering address each of these aspects.

Voice and Resonance

Voice refers to the quality of the sound produced at the vocal folds in our voice box (behind the Adam’s apple in the throat). When we talk about ‘voice’, we consider pitch, volume, breath support (e.g., does the person have enough air to speak), and quality (hoarse, breathy, strained, etc.). Most sounds in English are ‘voiced’, meaning that as the air flows up from the lungs through the voice box, the vocal folds vibrate and start the sound wave that is shaped into speech sounds further up in the vocal tract. Children can develop voice difficulties and disorders because of vocal abuse or misuse, cancer, injury, or neurological conditions. Generally speaking, voice disorders are called ‘dysphonia’ and there are different types of dysphonia.

Resonance is how the airstream and soundwaves of the voice are shaped and modified in the throat, mouth, and nasal cavity. You may have noticed that when someone has a cold, they might sound ‘hyponasal’ (i.e., *less* nasal) as the sound waves are not resonating in the nasal cavity as they typically would. A person sounds ‘hypernasal’ when *too much* of the airstream is directed through the nasal cavity. Most English sounds are directed through the mouth. The ‘m’, ‘n’, and ‘ng’ (*walking*) sounds are directed through the nose. Children can have atypical resonance for many reasons including structural abnormalities (e.g., related to a cleft palate), motor speech disorders, or mislearning.

Language

Language – like attention and memory – is a cognitive domain. Language is how we represent and share meaning with others. Language can be spoken (as when you say, “I’m going to school”) or nonverbal (as when you raise your eyebrows to communicate disdain). Language can be represented through complex gestural systems such as American Sign Language or British Sign Language.

Language has a number of **domains** including semantics (word meaning, word class, vocabulary), morphology (small units of language that change meaning such as the difference between *walk-ing* and *walk-ed*), and syntax (word order, grammar).

Expressive language means the words and sentences that a person *says*. For example, when a child says, “where daddy?” **Receptive language** or **auditory comprehension** is what a person *understands*. For example, if an adult says, “get your shoes,” if the child retrieves their shoes, they

demonstrated comprehension of that command. A child may have difficulties with only expressive language or both expressive *and* receptive language. Language is analyzed at the word level in its simplest form (e.g., that a child knows the word for ‘dog’), the sentence level (e.g., that a child can share that their family dog is brown), and up to the discourse level (e.g., that a child can tell the story about how their family dog chewed their schoolbook and they got in trouble for it).

Pragmatic language is how we use language for social purposes – such as to request an item, comment on something, greet others, protest, and more. **Social communication** is related to pragmatic language – it’s how we use communication in social situations. It includes skills such as staying on topic, not interrupting, being responsive to your communication partner, taking turns in conversation, and changing our communication style depending on our communication partner and the situation. Children with autism spectrum disorder have difficulties with pragmatics and social communication. Children can also have a social communication disorder without having autism.

Verbal reasoning is how we use language for higher level thinking. It includes skills such as problem solving, planning, persuasion, comparing and contrasting, and more.

There are various childhood language disorders and delays including late language emergence (“late talker”), expressive and/or receptive language delay, developmental language disorder, social communication disorder, and more. It should be noted that some children may have ‘residual language errors’ such as pronoun errors without them meeting the criteria for a language disorder.

Literacy

Written language is a human invention that is an *extension* of spoken language. Using written symbols such as letters, we use writing to represent speech and spoken language in a more permanent form. Since written language is a human invention, it must be taught. The ability to read depends on many different skills including phonological awareness, alphabetic knowledge, print awareness, phonics, vocabulary, and grammar.

Children who have difficulty learning written language systems may have a reading deficit or disorder. When a reading disorder negatively affects a child’s ability to learn, they may be diagnosed as having a specific learning disorder in reading. Children who have difficulty *learning to read* can also have difficulties *reading to learn* – as a child progresses through school, more and more content is taught in written format such as textbooks. Students are also required to *demonstrate* their learning through their writing, such as when they submit essays.

There are different types of reading disorders. Children who have difficulty decoding (mapping letters to their speech sounds – reading aloud) may be described as having a phonologically based reading disorder or word recognition deficit. Children who can decode but have difficulty

understanding what they read may have a reading comprehension deficit. Children can have difficulties with both decoding and reading comprehension.

Summary

Suffice it to say, human communication skills are very complex. It's a set of skills that is often taken for granted because for most people, the ability to understand and express what they're thinking comes easily. Given the complexity of communication, it's understandable that some children will not develop these skills as expected. It's important to remember that having a communication disorder does not mean that a child is unintelligent. Guardians should also know that there are many options for intervention so their child can receive the support they need to become successful communicators and reach their full potential.

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This resource may be used without alteration by other speech-language pathologists for the purpose of providing education to their clients.