



Viking Speech Scale, 2010©

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Purpose

This scale has been developed to classify children's speech production. The ease with which children can make themselves understood using other methods of communication is scored using different scales.

Speech production relies on the control and coordination of several body functions, including breathing and breath control, phonation (vibration of the vocal cords when speaking which creates the voice) and movement of the lips and tongue for articulation. Motor disorders in cerebral palsy can affect individual functions, giving rise to different speech patterns (e.g. reduction in breath control can lead to difficulties controlling the loudness of speech; impaired movements of the vocal cords is associated with breathy or harsh voice; impaired articulation is evident inability to produce some consonants etc). The extent to which each of the individual functions is affected will vary greatly from child to child. We know that the speech functions are adequate if words are perceived correctly by listeners. Although intelligibility is strictly a measure of activity (communicating a message) it relates directly to speech function and can help differentiate levels of impairment.

The Viking Speech Scale is developed for use with children aged 4 years and above.

The scale has four levels. Children who have cerebral palsy who are classified at Level I will have minimal or no speech production difficulties when compared to typically developing children. Speech development is usually complete by seven years of age. At four years of age children who are following the usual pattern of speech development should be intelligible to unfamiliar adults out of context. They have no difficulties regulating the loudness of their speech; their speech does not sound nasal or denasalised (sounding like they have a cold); their voice is clear sounding with no harshness and they can use appropriate, adult-like intonation patterns in conversational speech. However, at four – six years of age children may continue to show some speech immaturities. They substitute some consonants for each other (e.g. in English, saying "f" instead of "th") and omit unstressed syllables (e.g. in English, "tomato" may be produced as "mato").

The scale is ordinal. There is no expectation that the differences between the levels are evenly spaced, or that children will be spread evenly across the levels.

Instructions

Complete the information in the box below.

Read the descriptions of children's speech overleaf. Circle the level that best describes the child's speech.

Score children's **usual** speech performance i.e. what they usually do, not what they can do.

Score the level to which children are **understandable to strangers and unfamiliar conversation partners**. People familiar with the children (e.g. parents, teachers) will have "tuned in" to children's speech, recognise words because of their repeated use in context and may understand the children better than most other listeners.

Descriptions of children's speech

I. Speech is not affected by motor disorder.

Children in Level I will be following the usual pattern of speech development. They may have some speech immaturities, similar to other children of their age/developmental level.

Children in Level II have speech that is affected by their motor disorder. Their speech is usually understandable but is not following the usual pattern of development and does not sound like children of their age/developmental level.

II. Speech is imprecise but usually understandable to unfamiliar listeners.

Loudness of speech is adequate for one to one conversation. Voice may be breathy or harsh sounding but does not impair intelligibility. Articulation is imprecise; most consonants are produced, but deterioration is noticeable in longer utterances. Although difficulties are noticeable, speech is usually understandable to unfamiliar listeners **out of context**.

Children in Level II have speech that is affected by their motor disorder. Their speech may sound weak, slushy, slurred or loudness may be inappropriate but is usually understandable without contextual cues.

Children in Level III will usually have speech that is severely affected by their motor disorder at multiple levels (e.g. breath control, vocal cord movement/voice, articulation). The severe difficulties that children experience in controlling each level act together to make the children's speech very difficult to understand without contextual cues.

III. Speech is unclear and not usually understandable to unfamiliar listeners out of context.

Difficulties controlling breathing for speech - can produce one word per utterance and/or speech is sometimes too loud or too quiet to be understood. Voice may be harsh sounding; pitch may change suddenly. Speech may be markedly hyper nasal. A very small range of consonants are produced. The severity of the difficulties makes the speech difficult to understand out of context.

Children in Level III use speech as a method of communication. Their speech may be understandable to unfamiliar adults when they speak in single words or occasional words may be understood within longer phrases.

Children in Level IV may produce vocalisations but cannot produce any words or word approximations that unfamiliar listeners can understand out of context.

IV. No understandable speech.



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Read the descriptions of children's speech overleaf. Circle the level that best describes the child's speech.

- I. Speech is not affected by motor disorder.**

- II. Speech is imprecise but usually understandable to unfamiliar listeners.**

- III. Speech is unclear and not usually understandable to unfamiliar listeners out of context.**

- IV. No understandable speech.**

Name of Child *Date of birth*.....

Name of person completing Viking Speech Scale

Relationship to child *Date of classification*

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