General Guide for Intensive Therapy Intervention

<table>
<thead>
<tr>
<th>Check the following that apply:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive history of stuttering in the family</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Onset after 3.5 years of age</td>
</tr>
<tr>
<td>Problem present more than 12-18 months</td>
</tr>
<tr>
<td>Multiple part-word or single syllable word repetitions</td>
</tr>
<tr>
<td>Those above done with great frequency, increased length of each moment, &amp; faster speed and rate within the space between each repetition on one syllable or word (Stutter Like Disfluencies)</td>
</tr>
<tr>
<td>Tension present during speech</td>
</tr>
<tr>
<td>Cluster disfluencies: more than 2 disfluencies on a word or two or more adjoining disfluent words</td>
</tr>
<tr>
<td>11 or more SLD's on 100 syllables of speech</td>
</tr>
<tr>
<td>Difficulty initiating phonation or breathing abnormalities associated with speech</td>
</tr>
<tr>
<td>Child has demonstrated awareness</td>
</tr>
<tr>
<td>Child has demonstrated frustration</td>
</tr>
<tr>
<td>Other concomitant developmental issues are present</td>
</tr>
<tr>
<td>Problem has continued to persist since onset</td>
</tr>
</tbody>
</table>

Note: This guide is intended to assist clinicians in making treatment decisions by considering all factors present. Factors are based on research related to genetic factors, persistence, and recovery rates in young children who stutter. (Yairi and colleagues, 1992a, 1992b, 1993, 1996, 1997, 2004, 2004)
### Table 2-2. Continuum of Disfluent Speech Behavior

<table>
<thead>
<tr>
<th>More Usual</th>
<th>More Unusual</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(1)</strong> Typical Disfluencies</td>
<td><strong>(2)</strong> Atypical Disfluencies</td>
</tr>
<tr>
<td>Hesitations (silent pauses)</td>
<td>Monosyllabic word repetitions (3 or more repetitions per instance or uneven stress)</td>
</tr>
<tr>
<td>Interjection of sounds, syllables or words</td>
<td>Part-word syllable repetition (3 or more repetitions per instance or uneven stress)</td>
</tr>
<tr>
<td>Revisions of phrases or sentences</td>
<td>Sound repetitions</td>
</tr>
<tr>
<td>Phrase repetitions</td>
<td>Prolongations</td>
</tr>
<tr>
<td>Monosyllabic word repetitions. Two or less repetitions per instance, even stress, no tension</td>
<td>Blocks</td>
</tr>
<tr>
<td>Part-word syllable repetitions. Two or less repetitions per instance, even stress, no tension</td>
<td>Increased tension noted, e.g., tremor of lips or jaw or vocal tension</td>
</tr>
</tbody>
</table>

*(1) Typical disfluencies* in preschool children's speech listed in the order of expected frequency (hesitations the most frequent). These disfluencies are relatively relaxed, as, for example, noted by repetitions being even in rhythm and stress; however, if any are noticeably tense, then they are considered atypical.

*(2) Atypical disfluencies* that are very infrequent in the speech of children. More characteristic of what listeners perceive as stuttering. If in a speech sample of 200 syllables or more, there is more than 2% atypical disfluency (stuttering), this should be a basis for concern, especially if airflow or phonation is disrupted between repetitions (monosyllable word or part-word syllable) or if a schwa sounding vowel is substituted in the repetition of a syllable (for example, muhmuhmuhmans). Blocks and other signs of increased tension and fragmentation of the flow of speech should be the basis for immediate attention.

*(3) Crossover behaviors* on the continuum, such qualitative features as the number of repetitions per instance, the stress pattern involved, and the presence of tension distinguish typical and atypical disfluencies.

**Total Disfluency.** More than 10% total disfluency (nonrepetitious and repetitions) should signal a reason for concern. These children are very disfluent. Research indicates that highly disfluent children are also likely to show a higher frequency of atypical disfluency which is more likely to be noticed by a listener.

**Summary Statement:** Although most typical disfluencies are characterized by the fragmentation of a sentence or a phrase unit, most children show some part-word syllable repetition. Crossover behaviors include more fragmentation of the word, and finally, atypical disfluencies include more fragmentation of the syllable (the core unit of speech) and increased tension. Experience indicates that increased tension is the principal factor leading to more serious disruption of speech.
KiddyCAT©

Communication Attitude Test
for
Preschool and Kindergarten Children Who Stutter

Martine Vanryckeghem and Gene J. Brutten

Name: ___________________________________ Date of Birth: ________________

Gender: _______ Age: ______

Date: __________________

Please circle the response given by the child

1. Do words sometimes get stuck in your mouth? Yes No
2. Do you think that you talk right? Yes No
3. Do mom and dad like how you talk? Yes No
4. Do you think that people need to help you talk? Yes No
5. Is talking hard for you? Yes No
6. Do your words come out easily? Yes No
7. Do you talk well with everybody? Yes No
8. Do you think that talking is difficult? Yes No
9. Do you like to talk? Yes No
10. Do people like how you talk? Yes No
11. Are words hard for you to say? Yes No
12. Is it hard for you to say your name? Yes No

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Clinician's Instructions to the Child

Prior to giving the KiddyCAT to a child, please familiarize yourself with the instructions below and the suggestions found in the Test Administration and Scoring section of the manual. Then, follow the instructions fully in order to explain to the child being evaluated that you will be asking some questions about what he or she thinks about his or her talking. The instructions to the child are in bold type.

Let me explain what we are going to do:

I will ask what you think about your talking. If what I say about how you talk is true, (clinician nods head), you say . . . (prompt the child while you nod your head yes) YES. If what I say is not true, you say . . . (prompt the child while you continue to shake your head no) NO.

Let's try it out:

Do you talk too fast? Yes or No?

Give the child the time to answer.
If the child says “yes” you say: “Yes, you think that you talk too fast.”
If the child says “no” you say: “No, you don’t think that you talk too fast.”

In either event, repeat the child’s answer in a neutral manner rather than in a questioning way so as to confirm his or her answer.

Let me ask you another question about how you talk.

Do you talk as well as your friends do? Yes or No?

If the child says “yes,” you should say: “Yes, you think you talk as well as your friends do.”
If the child says “no,” you say: “No, you don’t think that you talk as well as your friends do.”

Good. You know what to do. I will now ask you a few more questions about how you talk. Remember to say “Yes” if what I say about your talking is true. Say “No” if it is not true.
Stuttering Intervention Program

Author:
Rebekah Pindzola, Ph.D.
Auburn University
PROTOCOL FOR DIFFERENTIATING THE
INCIPIENT STUTTERER

I. AUDITORY BEHAVIORS

• TYPE OF DISFLUENCY (mark the most typical)

<table>
<thead>
<tr>
<th>Interjections</th>
<th>Hesitations/Gaps</th>
<th>Repetitions</th>
<th>Prolongations</th>
<th>Coexisting Struggle</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Probably Normal</td>
<td>2</td>
<td>Questionable</td>
<td>3</td>
</tr>
</tbody>
</table>

• SIZE OF SPEECH UNIT AFFECTED (mark the typical level at which disfluencies occur)

<table>
<thead>
<tr>
<th>Sentence/phrase</th>
<th>Word</th>
<th>Syllable-/Sound</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Probably Normal</td>
<td>2</td>
</tr>
</tbody>
</table>

• FREQUENCY OF DISFLUENCIES (compute from speech sample and mark values on continuum)

- Frequency of Repetitions

| 1 | Probably Normal | 2 | Questionable | 3 | Abnormal |

- Frequency of Prolongations

| 1 | Probably Normal | 2 | Questionable | 3 | Abnormal |

- Frequency of Disfluencies, in General
• **DURATION OF DISFLUENCIES**

  - Typical Number of Reiterations of the Repetition =

    |   |   |   |
    |---|---|---|
    | 1 | 2 | 3 |
    | 1 | 2 | 3 |

  - Less than 2
  - 2 to 5
  - More than 5

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probably Normal</td>
<td>2</td>
<td>Abnormal</td>
</tr>
<tr>
<td>Probably Normal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

  - Average Duration of Prolongations =

    |   |   |
    |---|---|
    | 1 | 3 |
    | 1 | 3 |

  - Less than 1 sec.
  - One or more seconds

<table>
<thead>
<tr>
<th>1</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probably Normal</td>
<td>Abnormal</td>
</tr>
<tr>
<td>Probably Normal</td>
<td></td>
</tr>
</tbody>
</table>

  - **AUDIBLE EFFORT (mark those that apply)**

    |   |   |
    |---|---|
    | 1 | 3 |
    | 1 | 3 |

    - Lack of the following:
    - Presence of the following:

    |   |   |
    |---|---|
    | 1 | 3 |
    | 1 | 3 |

    - hard glottal attacks
    - disrupted airflow
    - vocal tension
    - pitch rise
    - others:

  - **RHYTHM/TEMPO/SPEED OF DISFLUENCIES**

    |   |   |
    |---|---|
    | 1 | 3 |
    | 1 | 3 |

    - Slow/normal; evenly paced
    - Fast, perhaps irregular

  - **INTRUSION OF SCHWA VOWEL DURING REPETITIONS**

    |   |   |
    |---|---|
    | 1 | 3 |
    | 1 | 3 |

    - Schwa not heard
    - Presence of Schwa

  - **AUDIBLE LEARNED BEHAVIORS (mark those that apply)**

    |   |   |
    |---|---|
    | 1 | 3 |
    | 1 | 3 |

    - Lack of the following:
    - Presence of the following:

    |   |   |
    |---|---|
    | 1 | 3 |
    | 1 | 3 |

    - word/phrase substitutions
    - circumlocutions
    - avoidance tactics (starters, postponers, and the like)
II. VISUAL EVIDENCE (list behaviors observed)

- FACIAL GRIMACES ARTICULATORY POSTURING:
  Lack of the following: Presence of the following:
  
  1  Probably Normal 3

- HEAD MOVEMENTS:
  Lack of the following: Presence of the following:
  
  1  Probably Normal 3

- BODY INVOLVEMENT:
  Lack of the following: Presence of the following:
  
  1  Probably Normal 3

III. HISTORICAL/PSYCHOLOGICAL INDICATORS (comment on the following based on client and/or parent interviews, observations, and supplemental tests or questionnaires, if any.)

- AWARENESS AND CONCERN (of child; of parents):

- LENGTH OF TIME FLUENCY PROBLEM HAS EXISTED:

- CONSISTENT VERSUS EPISODIC NATURE OF PROBLEM:

- REACTION TO STRESS:

- PHONEME/WORD/SITUATION FEARS AND AVOIDANCES:
CHECKING IN With Parents

This form is designed to gather information about your perceptions of your child’s stuttering (and past therapy if applicable). It should be completed separately by each parent.

Child’s Name __________________________ Age ______ Grade ______

Person Completing Form __________________________ Date ______________

Relationship to child

I have heard that stuttering is caused by (List as many as are applicable.)

I think that stuttering is caused by

Some questions I have about stuttering are

My child shows awareness of his/her speech difficulties. Yes No

If yes, please describe what your child has said or done to make you think he/she is aware?

My child stutters most when (List situations or factors that seem to negatively affect your child’s speech.)

When my child stutters, other people react by

I feel __________ when I watch my child struggling with speech, and I want __________

When my child stutters, I try to help by

I think the goal of stuttering therapy should be
CHECKING IN With Parents, continued

My child’s teachers have knowledge about stuttering. Yes No I don’t know

My child’s teachers have tried to help by ____________________________________________

The most important thing for someone to know about my child is ______________________________

I think my child is ready to be in speech therapy. Yes No
If no, please explain. ____________________________________________________________________________

My child’s level of motivation for working on his/her speech right now is

High Medium Low I’m not sure because _______________________________________________________

I think I can best help my child by ___________________________________________________________

My wish for my child in five years is __________________________________________________________

If I could do anything about this problem it would be _____________________________________________

Please answer the following questions if your child has received therapy in the past.

The two most important things I learned from my child’s other speech therapists were ________________________________________________________

In my child’s past therapy, he/she worked on ________________________________________________________

The most helpful aspect of my child’s past therapy seemed to be __________________________________

The least helpful aspect of my child’s past therapy seemed to be __________________________________

I am satisfied with the level of effort my child has put into speech therapy. Yes No
I am satisfied with the level of involvement my child has had in past therapy. Yes No
because _____________________________________________________________
CHECKING IN With Teachers

Some students stutter or hesitate when they speak. This may interfere with communication both in and out of the classroom. This type of speech problem warrants further evaluation. Please help me gain a better overall view of this student's speech skills by completing the following information and returning to me by _______.

Thank you!

Speech-Language Pathologist ___________________________ Phone/Room _______________________

<table>
<thead>
<tr>
<th>Student ___________________</th>
<th>Birthdate _______________</th>
<th>Age _______</th>
<th>Grade _______</th>
</tr>
</thead>
<tbody>
<tr>
<td>School ___________________</td>
<td>Teacher _________________</td>
<td>Section _______</td>
<td>Date _____</td>
</tr>
</tbody>
</table>

Follow-up is important, so I would like to observe this child in several different situations. Please list when this student:

- Goes to lunch __________________
- Shares in the classroom __________
- Attends gym class _____________
- Interacts with peers ____________

Please let me know the best way to contact you:

E-mail ___________________________ Phone _______________________

Days/Times _______________________

General Information

1. Compared to his/her peers, this student: (Check all that apply.)
   - doesn’t mind talking in class
   - tries to avoid speaking in class (does not speak if called upon; asks few questions)
   - speaks with little or no outward signs of frustration or embarrassment
   - sometimes uses gestures to avoid speaking
   - is difficult to understand in class
   - demonstrates frustration when speaking (Please describe.) ____________________________
   - exhibits academic performance at an average or above-average level

2. This student is disfluent or stutters when he/she: (Check all that apply.)
   - begins the first word of a sentence _______
   - speaks during an entire sentence _______
   - uses little words _______
   - uses main words _______
   - talks with peers _______
   - talks to adults _______
   - other ____________________
   - speaks to the class _______
   - gets upset _______
   - shares ideas or tells a story _______
   - answers questions _______
   - carries on a conversation _______
   - reads aloud _______

3. Check any of the following behaviors you have noticed in this child’s speech:
   - revisions (starting and stopping and starting over again) _______
   - frequent interjections (um, like, you know) _______
   - word repetitions (we-we-we) _______
   - phrase repetitions (and then, and then) _______
   - part-word repetitions (ta-ta-take) _______
   - prolongations (nnnnobody) _______
   - blocks (vocal tension/no speech comes out) _______
   - unusual face or body movements (visible tension, head nods, eye movements) _______
   - abnormal breathing patterns _______
   - other ____________________

Appendix 31
The Source for Stuttering: Ages 7-18

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CHECKING IN With Teachers, continued

In the Classroom

1. I do/do not (circle one) have concerns about this child’s speech because ____________________

2. I observe the most disfluency when ____________________

3. When this child has difficulty speaking, he/she reacts by ____________________

4. When this child has difficulty speaking, I respond by ____________________

Perceptions About Stuttering

1. I have had prior experience with a child who stutters. Yes No

2. I feel that stuttering is caused by ____________________

3. Some questions I have about stuttering are ____________________

4. Some questions I have about how to help this child communicate effectively in the classroom include ____________________

5. I think the goal of stuttering therapy should be ____________________

6. The amount of knowledge I currently have regarding the disorder of stuttering is:

   nothing 1 2 3 4 5 6 a lot

7. My confidence level regarding dealing with stuttering in the classroom would be:

   not confident 1 2 3 4 5 6 7 very confident

8. My confidence level in identifying stuttering in children who stutter is:

   not confident 1 2 3 4 5 6 7 very confident

9. My confidence level in identifying avoidance behaviors in children who stutter is:

   not confident 1 2 3 4 5 6 7 very confident

10. My comfort level when communicating with this child is:

    Uncomfortable 1 2 3 4 5 6 7 very comfortable
Observations about this child

With Peers

1. How does this student relate with other students the same age?

2. Is this student teased or mimicked because of his/her speech? Yes No
   If yes, please describe.

3. When this child has difficulty speaking, the other children react by

4. Following a comment or teasing by a peer, how does this child react?

In General

1. Have other students or this students' parent(s) ever mentioned his/her fluency problems? Yes No
   If yes, what was discussed?

2. Has this student ever talked to you about his/her speech problem? Yes No
   If yes, what was discussed?

3. What other information might be helpful in looking at this student's fluency skills?

4. Do you have any other concerns regarding this child's speech and language, academic, or social skills?
Read each sentence carefully so that you can mark if it is true or false for you. The sentences are about your talking. If you think that the sentence about your talking is true, then circle “true”. If you think that the sentence about your talking is not true, then circle “false”. There are no good or bad answers, only answers that are true or false about your talking. Remember, circle “true” if you think that the sentence about your talking is true and “false” if you think that the sentence is false.

Don’t forget to answer all thirty-five sentences with “true” or “false”.

Do you understand what you are being asked to do? Do you have any questions? You can ask for help if you do not know the meaning of a word or a sentence.

Example:

I don’t speak loud enough..................... True.............False

I speak too much.................................. True.............False

* The child should be asked to follow along silently as the instructions are read aloud by the clinician. The clinician should emphasize the words that are underlined. If the child needs help understanding a word or a test item, it should be given in a way that does not suggest the appropriateness of a true or false answer. It is suggested that the clinician reads the CAT statements aloud to the children in first and second grade as they follow along. The checklist should not be administered by the child’s parents or completed by them. The view of parents as to their child’s communicative beliefs do not correlate significantly with those of their child.
Communication Attitude Test

1. I don't talk right........................................... True.......False
2. I don't mind asking the teacher a question
   in class......................................................... True.......False
3. Sometimes words will stick in my mouth when
   I talk........................................................... True..........False
4. People worry about the way I talk........................ True........False
5. It is harder for me to give a report in class than
   it is for most of the other kids.......................... True........False
6. My classmates don't think I talk funny.................. True........False
7. I like the way I talk......................................... True.......False
8. People sometimes finish my words for me............. True........False
9. My parents like the way I talk.......................... True........False
10. I find it easy to talk to almost everyone............... True.......False
11. I talk well most of the time.............................. True........ False
12. It is hard for me to talk to people....................... True........False
13. I don't talk like other children......................... True........False
14. I don't worry about the way I talk...................... True........False
15. I don't find it easy to talk................................. True........False
16. My words come out easily.................................. True........False
17. My speech is worse when I talk to strangers (people I don't know) .................................. True ...... False

18. Other kids would like to talk like me .................. True ........ False

19. Kids make fun of the way I talk ........................ True ........ False

20. Talking is easy for me ..................................... True ...... False

21. Telling someone my name is hard for me .......... True ...... False

22. Many words are hard for me to say ..................... True .... False

23. I talk well with almost everyone ....................... True .... False

24. I often have trouble talking ............................ True .... False

25. I would rather talk than write ............................ True .... False

26. I like to talk .................................................. True .... False

27. I am not a good talker ..................................... True .... False

28. I wish I could talk like other children .................. True .... False

29. My words do not come out easily ....................... True .... False

30. My friends' speech is better than mine ............... True .... False

31. My speech is good when I talk on the phone ....... True .... False

32. My speech is better when I talk with a friend ...... True .... False

33. Many people don't like the way I talk ............... True .... False

34. I let others talk for me ...................................... True .... False

35. Reading aloud in class is easy for me .................. True .... False
Communication Attitude Test Score Key:

Student scores 1 point if answers match those below:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>T</td>
<td>13.</td>
<td>T</td>
</tr>
<tr>
<td>3.</td>
<td>T</td>
<td>15.</td>
<td>T</td>
</tr>
<tr>
<td>5.</td>
<td>T</td>
<td>17.</td>
<td>T</td>
</tr>
<tr>
<td>8.</td>
<td>T</td>
<td>20.</td>
<td>F</td>
</tr>
<tr>
<td>10.</td>
<td>F</td>
<td>22.</td>
<td>T</td>
</tr>
<tr>
<td>11.</td>
<td>F</td>
<td>23.</td>
<td>F</td>
</tr>
<tr>
<td>12.</td>
<td>T</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Stand. Dev.</th>
<th>+1SD</th>
<th>+1.5SD</th>
<th>+2SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children who do not stutter</td>
<td>7.05</td>
<td>4.69</td>
<td>11.74</td>
<td>14.09 (91% score below this)</td>
<td>16.43</td>
</tr>
<tr>
<td>Children who stutter</td>
<td>17.44*</td>
<td>6.81</td>
<td>24.25</td>
<td>27.66</td>
<td>31.06</td>
</tr>
</tbody>
</table>

* Mean exceeds CAT score of more than 98% of children who do not stutter.
CALMS Rating Scale for School-Age Children Who Stutter

This rating scale is designed to evaluate cognitive, affective, linguistic, motor, and social (CALMS) components that are related to stuttering. It is recommended that clinicians base their clinical judgment on deriving a score for each item using scores and/or data from scales, tests, as well as documented evidence about the child being evaluated. Take the scores for each rated item and divide by the total number of items scored within each component to obtain an average score for each component. The average component scores become the data points for plotting the CALMS profile.

COGNITIVE: (Rating scale: 1 = Normal, No Concern, High Ability 2 = Borderline, Slight Concern, Good Ability 3 = Mild Impairment, Some Concern, Variable Ability 4 = Moderate Impairment, Significant Concern, Poor Ability 5 = Severe Impairment, Extreme Concern, Very Poor Ability)

Recommended items to be rated:

1. Child’s ability to identify moments stuttering during reading

   Measure: % of moments identified from a reading passage or material that is easy for the child to read

   [1 2 3 4 5]

   80% accurate

2. Child’s ability to identify moments of stuttering in spontaneous speech

   Measure: % of moments identified in a short spontaneous speech sample

   [1 2 3 4 5]

   Unable to identify

3. Child’s knowledge and understanding of stuttering

   Measure: Rate child’s ability to describe stuttering behaviors, knowledge of his/her stuttering behaviors, and general facts about stuttering (T/F test)

   [1 2 3 4 5]

   OK - reps and prolongs

4. Child’s knowledge of previously learned fluency enhancing and/or stuttering modification techniques

   Measure: Assess how well the child can describe, explain, and demonstrate any technique he/she has been taught to use in previous therapy.

   [1 2 3 4 5]

   2.5

   Able to demonstrate

   Less able to describe

Other subjective measures might include child’s thoughts about being a person who stutters and reactions to how others view his/her stuttering.

Average Cognitive Component Score: 2.3

a When evaluating thoughts and perceptions, a rating of “1” refers to positive thoughts/ no concerns about being a person who stutters and positive perceptions of how others view stuttering. A rating of “5” reflects extremely negative thoughts, reactions or perceptions. Use ratings 2-4 to reflect varying degrees of positive/negative thoughts and reactions.
AFFECTIVE: (Rating scale: 1 = Normal, No Concern, High Ability 2 = Borderline, Slight Concern, Good Ability 3 = Mild Impairment, Some Concern, Variable Ability 4 = Moderate Impairment, Significant Concern, Poor Ability 5 = Severe Impairment, Extreme Concern, Very Poor Ability)

Recommended items to be rated:

1. Child's attitudes and feelings about communication

   Measure: Communication Attitudes Test (CAT or CAT-R)...record score and compare to norms.

   CAT Score: 23  [mean CWS = 16.7]

2. Affective features of the child's stuttering

   - Labels child uses for attitudes/feelings about stuttering
     Measure: "Framing My Speech" (C & R workbook)...this form could be used to count the number and types of words used to describe stuttering
     Child’s feelings about stuttering "C-C-C-can iiiii g-g-go to the b-b-bathroom?"
     Measure: "What Pops" and/or "What's True For You?" (C & R workbook)
     "What Pops" could be used to determine the % of the 20 items that relate to negative comments about stuttering. "What's True...could rate this item based on child's scores on all questions. Hands Down!...allows child to list positive and negative attributes about him/herself
     3/5 statements about speech and bullying "I hate when people laugh at me."
     "I don't like it when I get stuck on words."

   - Child's feelings and reactions to teasing/bullying about stuttering
     Measure: Level of concern expressed by child

     Average Affective Component Score: 3.8

---

* Use of the Communication Attitudes Test (CAT or CAT-R) and/ or A-19 scales requires comparison of child’s score with normative data supplied with each measure. We recommend that if the child who stutters (CWS) has a score that equals the mean for CWS, then that score would be rated at least a “3” on the CALMS rating scale. [For CWS the CAT Mean=17.3, SD=7.7 and A-19 Mean=9.07, SD=2.44]. Scores between 1 & 2 standard deviations from the mean score for CWS would be rated a “4” and a score of more than 2 standard deviations would be rated a “5.”

* Several paper-pencil tasks suggested by Kristin Chmela and Nina Reardon (2001) *The School-Age Child Who Stutters: Working Effectively With Attitudes and Emotions...A Workbook* (pp. 22-86) can be used in this section. This workbook is published by the Stuttering Foundation (1-800-992-9392). Child Client Forms in Crowe’s Protocols (T. Crowe, A, Di Lollo, & B. Crowe (2000) The Psychological Corporation) also can be used.
LINGUISTIC: (Rating scale: 1= Normal, No Concern, High Ability 2= Borderline, Slight Concern, Good Ability 3 = Mild Impairment, Some Concern, Variable Ability 4= Moderate Impairment, Significant Concern, Poor Ability 5 = Severe Impairment, Extreme Concern, Very Poor Ability)

Recommended items to be rated:

1. Overall relationship between stuttering and the length and complexity of utterances:
   Measure: Assess level of fluency/stuttering during simple oral reading, naming, sentence repetition, picture description, and story retelling
   1 2 3 4 5

2. Overall language ability
   Measure: Informal or formal assessment
   1 2 3 4 5

3. Articulation and/or Phonological ability
   Measure: Informal or formal assessment
   1 2 3 4 5
   Previously reported misarticulations have resolved.

CELF-4
Following Directions: 39 37th percentile
Word Structure: 29 63rd percentile

Language formulation difficulty observed at level of conversational discourse: freq intonations, reformulations, sometimes abandoned effort.

Average Linguistic Component Score: 2

---

a See recommended list of speech tasks for measuring the impact of linguistic complexity on frequency of stuttering. Go to [www.unl.edu/fluency/index.shtml](http://www.unl.edu/fluency/index.shtml) for list of simple to complex, contextualized and decontextualized speech tasks. The rating for this item will depend on the level of linguistic length and complexity where fluency disruptions occur consistently (e.g., a rating of “1” would indicate that stuttering only occurs at the highest level of linguistic difficulty and a “5” would be a rating for stuttering consistently at simple linguistic levels or where the child needs considerable contextual support).

b Select formal language tests for this section. Rate level of impairment.

c Select a formal test for articulation/phonological process analysis. Rate level of impairment.
MOTOR: (Rating scale: 1 = Normal, No Concern, High Ability 2 = Borderline, Slight Concern, Good Ability 3 = Mild Impairment, Some Concern, Variable Ability 4 = Moderate Impairment, Significant Concern, Poor Ability 5 = Severe Impairment, Extreme Concern, Very Poor Ability)

Recommend Items to be rated:

1. Characteristics of the child's stuttering
   
   Measure: Document number of units per repetition, duration of typical prolongation, etc. and rate level of impairment relative to the severity of stuttering
   
   Average Motor Component Score: 3

2. Frequency of stuttering with various communicative partners
   
   Measure: Sample with classroom teacher
   
   Measure: Sample with peers
   
   Measure: Sample with clinician

3. Determination of stuttering severity using the SSI-3
   
   Measure: Stuttering frequency in oral reading and spontaneous speech, the duration of the three longest stuttered moments, and the presence of physical concomitants (secondary coping behaviors)

   Average Motor Component Score: 3

---

a The SSI-3 (Stuttering Severity Instrument-3, Riley 1994- PRO-ED) should be used to record a rating that reflects the total SSI-3 score: (1 = 0-5) (2 = 6-10) (3 = 11-20) (4 = 21-27) (5 = 28+).
SOCIAL: (Rating scale: 1 = Normal, No Concern, High Ability 2 = Borderline, Slight Concern, Good Ability 3 = Mild Impairment, Some Concern, Variable Ability 4 = Moderate Impairment, Significant Concern, Poor Ability 5 = Severe Impairment, Extreme Concern, Very Poor Ability)

Recommended items to be rated:

1. **Reported avoidance of speaking situations**
   
   **Measure**: Reports from child, parent, teachers about number and severity of avoidance of words, people, and speaking situations
   
   Reports, not wanting to go to school on some occasions

   1 2 3 4 5

2. **Level of stuttering related to various social speaking situations**:
   
   **Measure**: Child's ability to express him/herself in a variety of speaking situations that occur at school, home, with sports teams, at clubs, etc.
   
   For example, 1 = child talks freely in most situations...5 = child limits speaking to specific situations
   
   According to parent report varies; can become withdrawn

   1 2 3 4 5

3. **Impact of stuttering on peer relationships**
   
   **Measure**: Report from child and parent about how much the child's stuttering is affecting the friendships or interaction with peers.

   1 2 3 4 5

Average Social Component Score: 3.7
C.A.L.M.S. Profile

Client: Scores: Cognitive: 2.8
Age: Affective: 3.8
Date of Profile: Linguistic: 2.0
Motor: Social: 3.7

Begin with identification and desensitization

Move to modification

Fluencty Shaping:
ERA-SM
Quantification of 1-5 Value for the CALMS Rating Scale

1 = Normal: Function is considered within normal limits in terms of behavior, performance, ability, attitude or perception. There are no concerns about function or performance. Test data are well within normal limits.

2 = Borderline: Slight variation or some concern about behaviors, performances, abilities, attitudes or perceptions. Test data show standard score of .5 to 1.4 SD below normal level.

3 = Mild Impairment: Clinical judgment suggests a “mild” degree of difficulty or deficit in certain functions. Also suggests that behaviors, performances, abilities, attitudes or perceptions are just below expected levels of function. Mild concern about function or performance. Test data show standard score of 1.5 - 1.9 SD below normal level.

4 = Moderate Impairment: Clinical judgment suggests a “moderate” degree of difficulty in certain functions. Also suggests that behaviors, performances, abilities, attitudes or perceptions are consistently below expected levels of function. Test data show standard score of 2.0 - 2.4 SD below normal level. Significant concern about function and performance.

5 = Severe Impairment: Clinical judgment suggests a “severe” degree of difficulty in certain functions. Also suggests that behaviors, performances, abilities, attitudes or perceptions are substantially below expected levels of function. Exceptional concern about function or performance. Test data show standard score of > 2.5 SD below normal level.
What Do I know About Stuttering?

1. More boys than girls stutter.  
   Yes  No

2. When one person in a family stutters, there are usually others in the family that also stutter.  
   Yes  No

3. About 1,000 people in the US stutter.  
   Yes  No

4. People who stutter are usually nervous people.  
   Yes  No

5. Experts know what causes stuttering.  
   Yes  No

   Yes  No

7. Most people who stutter are disfluent on about every word  
   Yes  No

8. It's very common for people who stutter to avoid speaking in certain situations or with certain people.  
   Yes  No

9. Stuttering is found all over the world in people who speak different languages.  
   Yes  No

10. People who stutter don't stutter when they sing.  
    Yes  No
"What do I know about stuttering?"
Answer key and rating for CALMS Rating Scale

1. Yes
2. Yes
3. No
4. No
5. No
6. No
7. No
8. Yes
9. Yes
10. Yes

<table>
<thead>
<tr>
<th>Number of Correct Answers</th>
<th>CALMS Rating Scale Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-10</td>
<td>1</td>
</tr>
<tr>
<td>7-8</td>
<td>2</td>
</tr>
<tr>
<td>5-6</td>
<td>3</td>
</tr>
<tr>
<td>3-4</td>
<td>4</td>
</tr>
<tr>
<td>2 or less</td>
<td>5</td>
</tr>
</tbody>
</table>
A Continuum of Linguistically Simple to Complex Speech Tasks.

(The CALMS Rating is the number to the right of the category if a high frequency of stuttering appears at that level of linguistic complexity)

A. Automatic Speech: (5)
   1. Count from 1-10
   2. Say the days of the week.

B. Short Phrases: (5)
   (Ask the child to repeat the phrase from a model or read the phrase)
   1. “It’s a nice day.”
   2. “I see a dog and a cat.”
   3. “Sam bought Bobby a puppy for his birthday.”

C. Picture Description: (4) Show the child a picture that depicts some type of action and say to the child, “Tell what’s going on in this picture.”

D. Picture Sequence: (4) Show the child a series of pictures from a script. Tell the story and then with the pictures in front of the child, have the child retell the story he/she just heard.

E. Ego-Centered Topic Discussion: (3) Have the child talk about his/her most recent birthday party or a vacation/event he/she experienced personally.

F. De-Centered Topic Discussion: (2) Ask the child to describe in detail the content of a familiar movie or a television show they have seen or a game (e.g., board or video games) he/she has played recently.

G. Relational Topic Discussion: (1) In this task, ask the child to describe how one plays a particular sport or activity that the child his familiar with. The clinician could say for example, “Let’s say that I have never seen a (football, basketball, baseball, soccer) game. Explain to me the object of the game, things about the game, how teams score points and how a team wins or loses.”

H. Complex Oral Discourse: (1) Pick a topic the child would not have very much knowledge of but has experienced in the real world (e.g., different types of clouds or how are clouds formed- www.wildwildweather.com). Read a short explanation of the phenomenon and then have the child retell the information they just heard.
Teasing Inventory

During the past week I have been teased (make a mark to show how much)...

| Terribly | not at all |

Who did the teasing?
Describe the teasing.

How did you feel? (for example angry, sad, scared, frustrated...)
What did you do?

How did you feel then?
Did you need adult help? □ No □ Yes
Did you receive help from an adult? □ No □ Yes

During the past week I have witnessed someone else being teased...

| Terribly | not at all |

Who was being teased?
Who did the teasing?
Describe the teasing.

How did you feel?
What did you do?

How did you feel then?
Was adult help needed? □ No □ Yes
Was help from an adult received? □ No □ Yes

During the past week I have teased someone else.

| Terribly | not at all |

Who did you tease?
Describe the teasing.

Why do you think you teased the other person?

How did you feel?

Did you need adult help? □ No □ Yes
Did you receive help from an adult? □ No □ Yes

Is there any problem with the person you were teasing now? □ No □ Yes
Is there anything you need to do to improve things?

Name ________________________________ Date _______________________

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Transcript of FLUENCY SAMPLE:

<table>
<thead>
<tr>
<th>(parent-child interaction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WR 2</td>
</tr>
<tr>
<td>Yup. // O.K.  o.k. I'll I'm hurry.</td>
</tr>
<tr>
<td>UP [WR + PR 2]</td>
</tr>
<tr>
<td>I'm hurry. I'm coming. // I'll // I'll I'll I'll I'll be be I'll be</td>
</tr>
<tr>
<td>here soon. // Uh //I'm the fire engine. // Yup. O.K. // I'll put the</td>
</tr>
<tr>
<td>PR</td>
</tr>
<tr>
<td>fire // No still on. // Daddy// I know what I know what. You got</td>
</tr>
<tr>
<td>PR 3 [SR + WR]</td>
</tr>
<tr>
<td>you got you got you got a /k/ car car like this. // Li li like this</td>
</tr>
<tr>
<td>PR [UP +R] WR 4 [SR 2 + WR]</td>
</tr>
<tr>
<td>like this. // No. // Y/lal - if if if if you drive the car a a and and you</td>
</tr>
<tr>
<td>WR 2 R [PR+PWR]3</td>
</tr>
<tr>
<td>go around and and and then- and the li and the li and the li and the</td>
</tr>
<tr>
<td>light says stop and you go. // Right here.</td>
</tr>
</tbody>
</table>

Total number of syllables: 71

Total number of disfluent syllables: 21 = 30%

Total number of stuttered syllables: 11 = 15%

(Total number of interjections: 1 = n/a %)
PREDICTIVE CLUTTERING INVENTORY (PCI)
David A. Daly (2006)

INSTRUCTIONS: Please respond to each description section below. Circle the number you believe is most descriptive of this person’s cluttering.

<table>
<thead>
<tr>
<th>Descriptive Statement</th>
<th>Almost Always</th>
<th>Almost Always</th>
<th>Occasionally</th>
<th>Infrequently</th>
<th>Almost Never</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRAGMATICS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Lack of effective self-monitoring skills</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2. Lack of awareness of own communication errors or problems</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3. Compulsive talker; verbose; tangential; word-finding problems</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4. Poor planning skills; mis-judges effective use of time</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5. Poor social communication skills; inappropriate turn-taking; interruptions</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>6. Does not recognize or respond to listener’s visual or verbal feedback</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>7. Does not repair or correct communication breakdowns</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>8. Little or no excessive effort observed during disfluencies</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>9. Little or no anxiety regarding speaking; uncorrected</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>10. Speech better under pressure (improves short-term with concentration)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>SPEECH-MOTOR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Articulation errors</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>12. Irregular speech rate; speaks in spurts or bursts</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>13. Telescopes or condenses words</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>14. Rapid rate (tachylalia)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>15. Speech rate progressively increases (festinating)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>16. Variable prosody; irregular melody or stress pattern</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>17. Initial loud voice trailing off to unintelligible murmur</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>18. Lack of pauses between words and phrases</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>19. Repetition of multi-syllabic words and phrases</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>20. Co-existence of excessive disfluencies and stuttering</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>LANGUAGE-COGNITION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Language is disorganized; confused wording; word-finding problems</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>22. Poor language formulation; poor story-telling; sequencing problems</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>23. Disorganized language increases as topic becomes more complex</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>24. Many revisions; interjections; filler words</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>25. Seems to verbalize before adequate thought formulation</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>26. Inappropriate topic introduction, maintenance, or termination</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>27. Improper linguistic structure; poor grammar; syntax errors</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>28. Distractable; poor concentration; attention span problems</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>MOTOR COORDINATION-WRITING PROBLEMS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. Poor motor control for writing (messy)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>30. Writing includes omission or transposition of letters, syllables, or words</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>31. Oral diadochokinetik coordination below expected normed levels</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>32. Respiratory dysrhythmia; jerky breathing pattern</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>33. Clumsy and uncoordinated; motor activities accelerated or impulsive</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

TOTAL SCORE:__

COMMENTS:

---

c. David A. Daly, 2006
Table 9-1. Weiss' (1967) Comparative Table Showing Various Differences between Stuttering and Cluttering

<table>
<thead>
<tr>
<th>Interpretation</th>
<th>Stuttering</th>
<th>Cluttering</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Functional; secondary</td>
<td>Hereditary; primary central language imbalance (lack of maturation of CNS mostly absent)</td>
</tr>
<tr>
<td>Underlying disturbance</td>
<td>Neurovegetative dysfuntional</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awareness of disorder</td>
<td>Strong</td>
<td>Mostly absent</td>
</tr>
<tr>
<td>Speech characteristics</td>
<td>Clonic and tonic inhibition</td>
<td>Hestitation, repetition (without inhibition)</td>
</tr>
<tr>
<td>Specific symptoms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of delivery</td>
<td>Rather slow</td>
<td>Mostly quick</td>
</tr>
<tr>
<td>Sentence structure</td>
<td>Mostly correct</td>
<td>Often incorrect</td>
</tr>
<tr>
<td>Fear of specific sounds</td>
<td>Present</td>
<td>Absent</td>
</tr>
<tr>
<td>Heightened attention</td>
<td>Worse</td>
<td>Better</td>
</tr>
<tr>
<td>Relaxed attention</td>
<td>Better</td>
<td>Worse</td>
</tr>
<tr>
<td>Foreign language</td>
<td>Worse</td>
<td>Better</td>
</tr>
<tr>
<td>Gesturing</td>
<td>Stiff, inhibited</td>
<td>Broad, uninhibited</td>
</tr>
<tr>
<td>Reading aloud</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Well-known text</td>
<td>Better</td>
<td>Worse</td>
</tr>
<tr>
<td>Unknown text</td>
<td>Worse</td>
<td>Better</td>
</tr>
<tr>
<td>Writing characteristics</td>
<td>Compressed; high-pressure strokes</td>
<td>Loose, disorderly</td>
</tr>
<tr>
<td>School performance</td>
<td>Good to superior</td>
<td>Underachiever</td>
</tr>
<tr>
<td>Psychological attitudes</td>
<td>Embarrassed, inhibited</td>
<td>Carefree, sociable</td>
</tr>
<tr>
<td></td>
<td>Painstaking, compulsive</td>
<td>Impatient, impulsive</td>
</tr>
<tr>
<td></td>
<td>Grudge-bearer</td>
<td>Easily forgetting</td>
</tr>
<tr>
<td></td>
<td>Penetrating</td>
<td>Superficial</td>
</tr>
<tr>
<td>Experimental responses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>Better</td>
<td>Worse</td>
</tr>
<tr>
<td>Lee effect</td>
<td>Better</td>
<td>Worse</td>
</tr>
<tr>
<td>EEG</td>
<td>Borderline normal</td>
<td>Often deviant</td>
</tr>
<tr>
<td>Chlorpromazine</td>
<td>Worse</td>
<td>Better</td>
</tr>
<tr>
<td>Dextroamphetamine</td>
<td>Better</td>
<td>Worse</td>
</tr>
<tr>
<td>Course</td>
<td>Fluctuating; spontaneous improvements and relapses</td>
<td>Persistent</td>
</tr>
<tr>
<td>Therapy</td>
<td>Attention should be diverted from details; psychotherapy</td>
<td>Concentration on details</td>
</tr>
<tr>
<td>Prognosis</td>
<td>Depends on emotional adjustment</td>
<td>Depends on acquiring concentration</td>
</tr>
</tbody>
</table>

*From Weiss.* Reprinted with permission.

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From Curlee: Stuttering and Related Disorders of Fluency, 93.
NANCY HELM-ESTABROOKS

### Table 8.1

**"Typical" Characteristics of Stroke-Induced Stutterer (Usually Sudden in Onset)**

<table>
<thead>
<tr>
<th>Dysfluencies may be heard on</th>
<th>Initial phonemes (always)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medial phonemes (often)</td>
</tr>
<tr>
<td></td>
<td>Substantive words (always)</td>
</tr>
<tr>
<td></td>
<td>Functor words (often)</td>
</tr>
<tr>
<td></td>
<td>Conversation (always)</td>
</tr>
<tr>
<td></td>
<td>Repetition, automatized sequences, rote paragraphs, singing, and tapped speech (usually)</td>
</tr>
<tr>
<td>There is no adaptation effect</td>
<td></td>
</tr>
</tbody>
</table>

**Concomitant findings**
- Secondary motor signs (rare)
- Aphasia (sometimes)
- Bucco/facial apraxia (sometimes)

**Often reduced performance in**
- "Carrying" a tune
- Tapping rhythms
- Block designs from model
- Stick designs from memory
- Sequential hand positions
- Three-Dimensional drawing

### Table 8.2

**"Typical" Characteristics of Stutterer with Head Trauma (May be Gradual in Onset)**

<table>
<thead>
<tr>
<th>Dysfluencies may be heard on</th>
<th>Initial phonemes (always)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medial phonemes (often)</td>
</tr>
<tr>
<td></td>
<td>In conversation (always)</td>
</tr>
<tr>
<td></td>
<td>Substantive words (often)</td>
</tr>
<tr>
<td></td>
<td>Functor words (often)</td>
</tr>
<tr>
<td></td>
<td>Repetition, automatized sequences, rote paragraphs, tapped speech and singing (usually)</td>
</tr>
<tr>
<td>Adaptation effect is rare</td>
<td></td>
</tr>
</tbody>
</table>

**Concomitant findings**
- Seizure disorder (sometimes)
- Secondary motor signs (sometimes)
- Aphasia (sometimes)

**May have reduced performances in**
- "Carrying" a tune
- Tapping rhythms
- Block designs from model
- Sticks from memory
- Sequential hand position
- Three-dimensional drawing

### Table 8.3

**"Typical" Characteristics of Stutterer with Extrapyramidal Disease (Usually Gradual in Onset)**

<table>
<thead>
<tr>
<th>Dysfluencies may be heard on</th>
<th>Initial phonemes (always)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medial phonemes (often)</td>
</tr>
<tr>
<td></td>
<td>Substantive words (always)</td>
</tr>
<tr>
<td></td>
<td>Functor words (sometimes)</td>
</tr>
<tr>
<td></td>
<td>In conversation (always)</td>
</tr>
<tr>
<td></td>
<td>In repetition, automatized sequences, rote paragraphs, tapped speech, and singing (sometimes)</td>
</tr>
<tr>
<td>Adaptation effect may be seen</td>
<td></td>
</tr>
</tbody>
</table>

**Concomitant findings**
- No secondary motor signs, aphasia, bucco/facial apraxia

**Reduced performance in**
- "Carrying" a tune
- Tapping rhythms
- Sequential hand positions