Conquering Cluttering
Evidence Based Cluttering
Assessment and Treatment
By Jen Holtzman & Mattie Eshnaur

"In graduate courses focusing on disorders of fluency, the average amount of time spent on cluttering is approximately 100 minutes" (Scaler Scott, Grossman, & Tetnowski, 2010)

“Let’s double that today” (Holtzman & Eshnaur, 2016)

Conquering Cluttering
Evidence Based Cluttering
Assessment and Treatment
By Jen Holtzman & Mattie Eshnaur

What do we know about cluttering?
We know it’s a fluency disorder that commonly occurs in childhood, but in contrast with stuttering it usually occurs later on. According to Scaler Scott & Ward (2013), “Reports of cluttering starting at age 11 and above are common.”
Just like stuttering, it exists in all countries and across all cultures, and has a 5:1 ratio of males to females (Scaler Scott & Ward, 2013)
We have evidence that it co-exists with stuttering, ADHD, learning disorders, Down’s syndrome, and autism spectrum disorder (Scaler Scott & Ward, 2013)

What don’t we know about cluttering?
The cause is currently unknown, but some research suggests there are functional neurological difference between people who clutter and people who do not clutter (Van Zaalen, Ward, Nederveen, Lameris, Wijnen, & Dejonckere, 2009)
There is no reliable data on prevalence and incidence, recovery rates, or if there is a critical time period for spontaneous recovery (Scaler Scott & Ward, 2013)
We’re not exactly sure how often cluttering co-exists with other disorders

LCD Definition of Cluttering (ST. Louis & Schulte, 2011)
LCD= Lowest Common Denominator definition of cluttering
“It represents an attempt to reduce cluttering to its lowest common denominator components, that is, the minimum symptoms needed to allow a diagnosis of cluttering.” (Scaler Scott & Ward, 2013)

1. Segments of conversation are perceived as too fast, too irregular in rate (jerky, spurt), or both
2. These segments must be accompanied by one or more of the following:
   A. Excessive normal disfluencies
   B. Excessive collapsing or deletion of syllables
   C. Abnormal pauses, syllable stress, or speech rhythm

Lowest Common Denominator (LCD) definition of Cluttering
LCD definition of cluttering
Rate does not actually have to be fast, it just has to be perceived to be too fast
Awareness or lack of awareness of cluttering is NOT considered a defining diagnostic characteristic
Language difficulties, cognitive function issues, etc. are not considered defining characteristics

Cluttering Spectrum
Ward (2006, 2010, 2011) proposed the idea of a cluttering spectrum in addition to the LCD definition
Cluttering spectrum = speech/language output that is disrupted, like cluttering, but the severity and/or amount of difficulties are too limited to warrant a diagnosis of cluttering.

Cluttering Assessment
Cluttering DX
LCD factors to assess:
1. Assess speech rate
2. Assess speech rhythm and unusual pausing
3. Assess fluency
4. Assess articulation
Non LCD factors to assess:
1. Language

Example of Cluttered speech
http://associations.missouristate.edu/scar/resources/what_is_cluttering.htm
What do you notice about the first sample?
How are the perceivable characteristics different from disfluent speech associated with stuttering?

Summary of Core Cluttering Symptoms

Cluttering DX-1. Speech Rate

- Assess perceived rapid rate subjectively in conversational speech (clinician’s, teacher’s, parent’s opinions)
- Assess rate objectively (optional)
  - Calculate mean articulation rate of speech (average speech measured in syllables per second; either choose 1 random minute or do entire recording if time)
  - Syllables per second (SPS) is preferred rate of measurement for cluttering
  - Fast articulatory rates are >5.1 SPS for younger children, >5.4 SPS for adolescents, and >5.6 SPS for adults (VanZaalen, Wijnen, & Dejonckere, 2011)
  - Identify fastest burst of speech over 1 syllable within the whole speech sample

Cluttering DX-2. Speech Rhythm & Unusual Pausing

- Listen subjectively for inappropriate word stress (i.e., indeed vs. in deed) or sentence stress (i.e., unexpected stressing of functional words or de-stressing of content words).
- Listen subjectively for unusual pausing. Pausing is considered unusual when it occurs frequently enough to interfere with clarity of the message.
  - Look for patterns related to unexpected pausing (relate to linguistic context, such as remembering an idea, or speech speed related)
  - Possible no pattern will be found

Cluttering DX-3. Fluency

Fluency:

- Cluttering is associated with an increase in number of normal or NSLDs (non-stuttering like disfluencies)
  - NSLDs = word or phrase repetitions, phrase revisions, false starts, and interjections that are NOT accompanied by tension
- Tally the totals and use clinical judgement or a language sampling program such as SALT (Systematic Analysis of Language Transcripts) to determine if number is beyond normal limits
  - Make sure to take into account how much the clarity of communication is impacted when using clinical judgement
  - Measure SLD (Stuttering Like Disfluencies) as well if stuttering is suspected to co-exist

Cluttering DX-4. Articulation

We’re not talking about traditional assessment of articulation

Look for a lack of articulatory precision that is not phoneme specific and overuse of co-articulation (i.e., sounds run together too much in connected speech, “mush mouth”) for cluttering.

Look for:

- Subjectively- not fully hitting articulatory targets due to excessive speed as speech sounds blurred or mushy
- Objectively- cluster reduction, loss of sounds, and loss of parts of words (usually weakly accented syllables or small words) exist
  - When weak syllable deletion occurs it should not be considered as a phonological process error

Another Example of Cluttered speech

http://www.mnsu.edu/comdis/ical/papers/dewey1c.html

How would characterize these disfluencies?

How is this sample similar to the first? How is it different?
Cluttering DX - Non-LCD FACTORS

Language

- Language processing issues that can be intertwined with cluttering often show up at a higher level (narrative vs. phrase or sentence) and may not show up on standardized tests (Scalco Scott & Ward, 2013)
- Take narrative language sample and look for:
  - sequencing of story events
  - grammar
  - tangential speech
  - over-elaboration of unimportant story elements
  - lack of detail of important story elements
  - intelligibility

Predictive Cluttering Inventory (Daly, 2006)

- The Predictive Cluttering Inventory (PCI) is a tool for assisting clinicians in making differential diagnostic discriminations among (1) people who clutter, (2) people who both clutter and stutter, and (3) those who do not have a fluency problem like stuttering or cluttering.
- Preliminary data suggest that a Score of 120+ indicates a diagnosis of cluttering. Scores between 80 and 120 indicate a diagnosis of cluttering-stuttering.
- Please note that The Predictive Cluttering Inventory is preliminary and has not yet been subjected to empirical examination for validity or reliability.
- Can download from http://associations.missouristate.edu/ica/

National Stuttering Association Brochure - Cluttering vs. Stuttering
http://associations.missouristate.edu/ICA/cluttering_assessment_program.htm

A final (funny) example of cluttered speech

What would you focus on with treating her speech?

What do you notice are communicative strengths?

Cluttering Treatment
Cluttering Treatment Activities

● These treatment activities were taken from the book *Managing Cluttering: A Comprehensive Guidebook of Activities* by Scaler Scott & Ward (2013).
● Many of these activities are helpful for pragmatic language disorders as well as other speech language disorders.
● Screenshots of worksheets from the book are in the presentation to help clarify treatment activities.

Cluttering Treatment Activities

● Recurring themes in these treatment activities specific for students who clutter are:
  ○ teaching them that their listeners care about what they have to say
  ○ going in the “backdoor” or helping them come to their own conclusions in order to help them realize they need to change their speech
  ○ Improving both the “what” (what is in message or content of the message) and the “how” (how message is said or delivery of message)

Cluttering Treatment- School Age Child

Activity: Building a strong foundation

● listeners are interested in what you have to say and what you have to say is valuable
● worksheet “I have great things to say!”

Activity: The “how’s” and “what’s” of speech

● going through back door - brainstorming reasons for communication breakdowns
● worksheet “Reasons a speaker might not be understood”
● divide list into “How I say it” breakdowns (mumbling, not pausing) and “what I say” breakdowns (not enough background information)

Cluttering Treatment- School Age Child

Activity: The scientific experiment

● Child reads 10 sentences in different ways (mumbling, normal, fast, etc.) and listener repeats back what he/she heard
● Use “The scientific experiment” worksheet to help child come to their own conclusions to see which breakdown results in least heard

Activity: Changing how I say it

● Use worksheet “Changing how I say it” and have child come up solution to increase their own speech clarity with clinician guidance
● Shift responsibility for breakdown to child’s own speech
Cluttering treatment - School Age Child

Activity: Changing what I say
- use worksheet “Changing what I say” and have child brainstorm ways to fix communication breakdowns that relate to the what or content of their message (as opposed to how they said it)
- can also use worksheet “Different people need different kinds of background information”

Activity: Putting what’s and how’s together in flowcharts
- guide child to include ways communication breaks down, evaluating what happened, and repairs that can be made
- use flowchart in role playing activities

Cluttering treatment - School Age Child

Changing how I say something:
Child: Tell me something you did this weekend.
SLP: I went to the ma.
Child: You were speaking too quickly.

Changing what I say:
Child: Tell me something you did this weekend.
SLP: I went to that place I always go.
Child: You need to give me more background information. I don’t know where you always go.

(Clarker Scott & Ward, 2013)
**Cluttering treatment - School Age Child**

**Activity: Organizing what I write**
- Scaler Scott & Ward have found that working on organizing writing first, helps with organizing verbal communication even if client does not have problems with written communication (2013)
- Child organizes words into categories on a topic, then completes graphic organizer to organize into paragraphs, etc...

**Activity: Organizing what I say**
- follow same process as for writing to guide child to tell a story or about an event aloud

---

**Mazes, Restarts, and revisions...Oh My!**

Using the **think-plan-speak** and **think-plan-write** strategy, you can teach your student to (super) impose organization for both oral and written output.

---

**Think, Plan, Write - Think, Plan, Speak**

**Teaching Think-Plan-Speak/write**

1. Validate that the student has great ideas.
2. Recognize and identify that while the ideas are great, the problem is getting them out in a way that makes sense.
3. Talk about what it means to plan, differentiated from concrete to abstract examples (depending on developmental factors and "hooks" for interest/engagement).
4. Talk about planning before speaking to make the words come out in a way that is easier and makes sense. Teach stick-writing for planning.
5. Provide a visual for cuing (above, or pictured)
6. Translates easily to writing (stick-writing to plan)
7. Transition to more key-words/phrases as child becomes intermediate elementary and beyond

---

**Mixed cluttering and stuttering Tx**

**Activity: How are my stuttering and cluttering different?**
- Help child separate out characteristics of each
- Can use worksheet “How are my stuttering and cluttering different?”

**Activity: How do my cluttering and stuttering work together?**
- Use video of child and pull out utterances where child speeds up speech (cluttering results) to avoid getting stuck (stuttering) to show them
- can use worksheet “Ways my cluttering and stuttering may work together”

---

**How are my Cluttering and Stuttering Different?**

**Ways my Cluttering and Stuttering may work together**
**Mixed Cluttering and Stuttering Tx**

**Activity: Deciding what strategies to use when**
- Use “What strategy should I use?” flowchart to guide child through types of disfluencies and strategies they could use for each.
- Remind child that this step will take a lot of practice and review.

**Activity: Putting it all together for carryover**
- Come up with unobtrusive nonverbal signal teachers can use to remind students.
- Use role-play and real-life scenarios in therapy sessions.
- Overcome roadblocks (would rather avoid stuttering, can’t integrate it all, can’t self-monitor).

---

**Treatment in Special Populations: Overview**

<table>
<thead>
<tr>
<th>Population</th>
<th>Engage with...</th>
<th>Special considerations</th>
<th>See Handout</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASD</td>
<td>topics of high-interest</td>
<td>self need more explicit skill teaching around communication repair (perspective)</td>
<td>What lights me up?</td>
</tr>
<tr>
<td>ADHD</td>
<td>internal goal linked with external motivator</td>
<td>teaching self-awareness, self-regulation, and organizational strategies</td>
<td>What is my action plan?</td>
</tr>
<tr>
<td>LD</td>
<td>explicitly stated goal (student-generated)</td>
<td>greater organizational strategies taught with more repeated opportunities</td>
<td>Why is it hard to answer the question?</td>
</tr>
<tr>
<td>ID (low cognition)</td>
<td>concrete goals linked to functional communication</td>
<td>greater modeling from SLP now imitation</td>
<td></td>
</tr>
</tbody>
</table>

---

**Cluttering and Autism: maintaining engagement is key**

- Use the student’s area of conversational interest:
  - as an area of strength
  - a natural way to maintain attention, focus, and engagement
  - a meaningful context in which to practice skills
  - don’t focus this treatment on shifting away from topics of interest

---

**Cluttering and ADHD: Self-regulation is key**

ADHD (or at least traits of ADHD) often co-occur with cluttering.

Cluttering arguably results from impaired self-monitoring in and of itself (which is part of the self-regulatory system); when combined with impulsivity the need for explicit work on self-monitoring skills becomes even more important in treatment planning.

Identifying goals that are linked both to internal and external reinforcement with clear steps is important.
**Cluttering and ADHD: Self-regulation is key**

Internal reinforcer: I want to be clearer when I speak.

External reinforcer: I earn points with my SLP and teacher when I use my think-plan-speak and think-plan-write strategies.

Other things that can help with self-regulation: sensory activities, mindfulness activities, yoga, and movement. O.T.s can be very helpful in coming up with things like sensory menus and movement activities that can help students with ADHD focus better and have greater sustained attention.

Start session by using a barometer to gauge "how your engine is running"; if the engine is running high doing an activity that helps get the engine calm; identifying 3 things student can do within session to self-regulate if needed.

---

**Cluttering and other special populations**

Cluttering and learning disabilities (LD), intellectual disabilities (ID), and gifted individuals (TAG):

LD: teaching organizational strategies, providing for repeated opportunities to practice

ID: "do what I do"; keep it simple and immitative

TAG: knowledge is empowerment

---

**Cluttering and the IEP**

Cluttering goal ideas:

Student will use 85% intelligible speech when orally participating in her classroom or in conversational samples given visual cues by maintaining a slow rate and stopping and repairing communication when listeners give nonverbal cues (i.e., look confused, lean in, cup hand over ear, etc...) as measured by language samples, teacher report, and therapy data.

Student will answer without marring in a structured, small-group activity by using organizational strategy of: pausing, planning with pictures/key words, and _you_ speaking, given visual supports and adult modeling as needed in four out of five trials.

---

**Cluttering and the IEP**

Cluttering accommodations:

- Accentuate non-verbal cues when you don't understand student first (i.e., looking confused, leaning in, cupping ear), provide wait time, then ask student verbally to repeat herself if student doesn't catch your non-verbal cue

- Use an individualized, student selected nonverbal/verbal cue (i.e., tug on ear, clear throat, touch chin, etc.) to alert student to repair communication and use more pauses when student in sharing aloud in classroom discussion or during oral presentations
VIDEO FROM SFA TRAINING DVD

Present chapter on Coexisting Problems with stuttering.

Would group like to view the entire video at some point?

.1 CEU available w/t purchase of CEU for 25.00

INTERNATIONAL CLUTTERING ASSOCIATION

Kuster, Judy (2014). Online Resources on Cluttering: The Other Fluency Disorder. Available at: http://www.mnsu.edu/comdis/kuster/cluttering.html

National Stuttering Association (2014). Available at: http://www.westutter.org/


*jTreatment activity handouts are all printables from this book

References

For full participation credit, please complete this graphic organizer and write an organized 3 paragraph essay about what you learned today that includes an introduction, body, and conclusion:

Just kidding!