Basic Principle Problem Solving in School-Age Fluency Disorders

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Use the following rating scales below:

A. 1----2----3----4----5----6----7----8----9----10

B. 1----2----3----4----5----6----7----8----9----10

C. 1----2----3----4----5----6----7----8----9----10

Very Easy — Very Difficult

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Introduction: Problem Solving Actions

- Know
- Observe
- Synthesize
- Implement & Evaluate

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Introduction: Difficult Problems have similar characteristics

1. Lack of Transparency

2. Interrelations & Decisions around large number of items

3. Complexity of Factors

4. Dynamic and Unpredictable over time

Dörner, 1975; Funke, 1991

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Problem Solving, cont.

- No one true formula
- Mistakes
- We never go back to the beginning of a specific problem (Martinez, 1998)

Problem solving methods

- **General Questions (Tilly, 2008)**
  - Problem Definition
  - Heuristics or Rules
  - Solutions-Actions-Evaluations

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Basic Principle Problem Solving

GENERAL QUESTIONS

- General Questions (Tilly, 2008)

  www.youtube.com/watch?v=xAFfYLR_IRY&feature=related

  - 9 Key Questions: Evaluation and Ongoing Problem Solving
    - Problem Definition
    - Heuristics or Rules
    - Solutions-Actions-Evaluations

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Basic Principle Problem Solving

GENERAL QUESTIONS

- Is there a problem and what is it?
- Why is it happening?
- What do all parties desire?
- What does research say?
- What does our expertise say?
- What is the plan?
- How will the plan be implemented?
- Are we being successful?
- How do the Basic Principles remain constant? (to be reviewed)

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Basic Principle Problem Solving

PROBLEM DEFINITION

"…Fluency problems in school-age children are often previously diagnosed and have persisted with or without therapy….***Contributing factors must be further understood*** in this population if not recognized earlier…"

(Yairi & Seery, 2011)

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Basic Principle Problem Solving

PROBLEM DEFINITION

- Early intervention (**Developmental Stuttering) is** the prevention of stuttering (90%)
- **Pervasive Developmental Stuttering** is stuttering that has persisted with or without therapy beyond the ***early intervention period*** (approximately ages 3-6)
- **Much we do not know**

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Basic Principle Problem Solving

PROBLEM DEFINITION

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Basic Principle Problem Solving

PROBLEM DEFINITION

- We recognize stuttering treatment on a continuum of simple----------------complex
- Goals vary based on progression of disorder
- The need to integrate more complex aspects of treatment (dealing with fear and apprehension) relate to child's temperament, stage of cognitive development, unique progression of problem and environment

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PROBLEM DEFINITION

The *definitive cause* of stuttering is unknown.

- Fluency problems are multifactorial. Much happens under the surface before the actual moment of disruption in speech behavior is seen or heard. (Smith & Kelly, 1997)

- Fluency of speech is variable, on a continuum, and can be considered "movement" (Van Lieshout, 2011)

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PROBLEM DEFINITION

Is fluency an issue of **"skill,"** or when deviant, a **"problem that requires tools you learn and eventually use?"**

Or

Is fluency on a continuum of **"movement"** (Van Leishout, 2011), whereby each individual has an inherent propensity that waxes and wanes, impacted by factors within the individual as well as within the environment?

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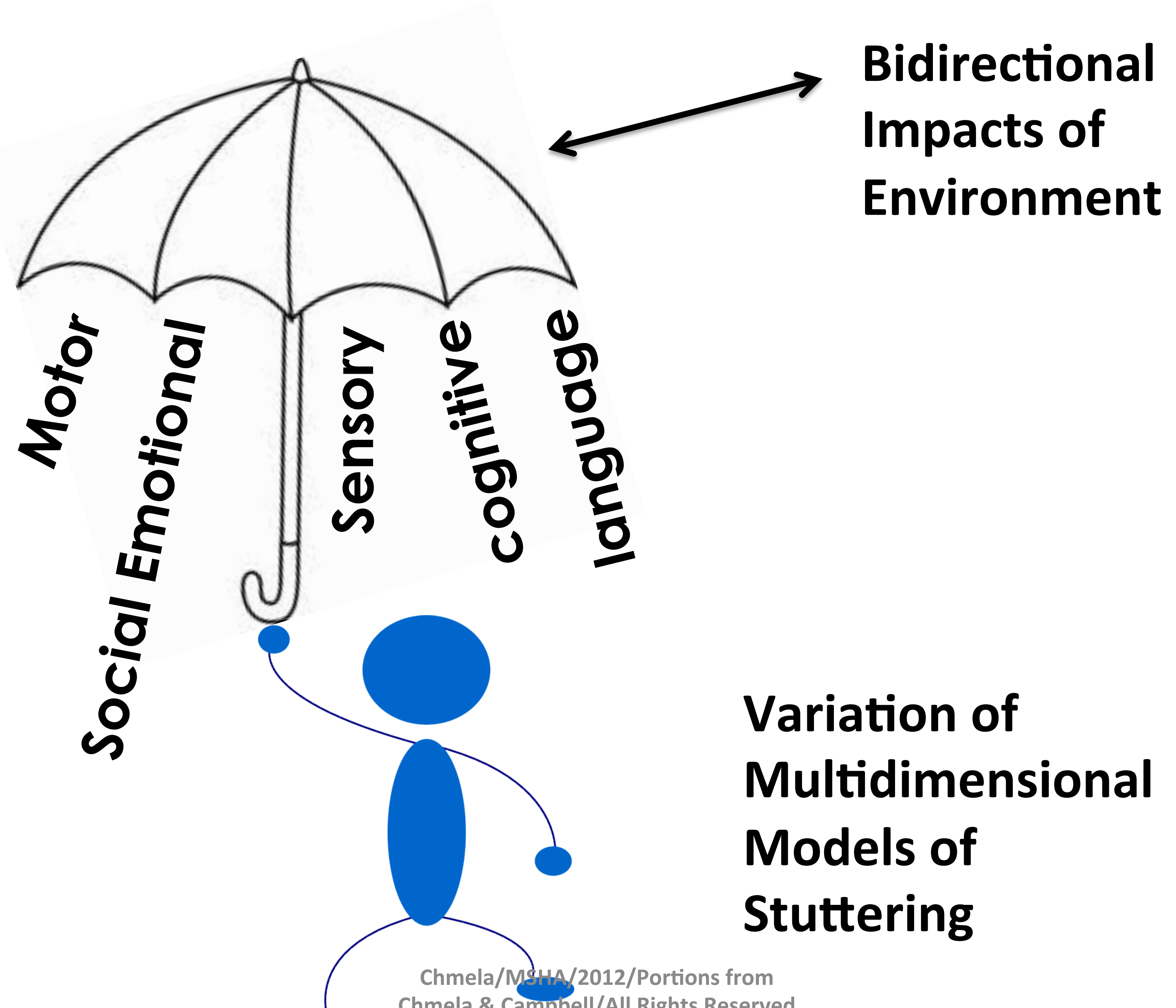

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PROBLEM DEFINITION

- **Name-Quantity** of disorder & **Qualitative Features**
- **Contributing factors** (motor, social-emotional, sensory, cognitive, language, environmental)
- **Summary of "Communication Discrepancies"** or those circumstances (measurable behaviors) across natural environments (educational, other) that are most challenging for the child

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Samuel demonstrates a moderate stuttering disorder characterized by…

…tense part word repetitions and prolongations (10 seconds duration) & averted eye contact…

…with contributing factors including verbal twin sibling, negative parental reactions to problem, and discrepancy between receptive and expressive vocabulary.

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PROBLEM DEFINITION

Referenced Heartland Method *(Reschly-Ysseldyke, 1995)**:***

- defines a "problem" in terms of discrepancies in performance

- problem within the educational setting is viewed as "the difference between environmental expectations and what an individual does" ***rather than the behavior*** that is of concern.

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PROBLEM DEFINITION

- Defining a problem in this manner allows the assessor to ***define factors*** and ***associated magnitude that are related to the problem***, and create ***collaborative discussions*** on how to solve it (Tilly, 2008).

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PROBLEM DEFINITION

- Recognizing discrepancies between expectations and personal desired performance allows relevant stakeholders to **"become objective about the nature of a problem."** Problems defined in this way become **"performance discrepancies"** rather than **"skill deficits,"** and are **based on observations of naturalistic units of behavior** and **how those units change over time** (O'Neill et al, 1997)

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PROBLEM DEFINITION

What are **Communication Discrepancies**?

- differences in present *Communicative Competence*
- (personally defined & observed by others)

Communicative Competence:

- Assertive
- Confident
- Effective

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Communicative Competence

CONFIDENT…messages

portrayed with our ***eyes, face, and body*** *&*
volume of voice *when communicating,*

with or without fluency;

ASSERTIVE*…Moving towards communication, with or without fluency; self-advocacy*

EFFECTIVE…Manner in which speaking occurs

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PROBLEM DEFINITION

Speaking situations whereby:

- ✓ Stuttering self-reported or observed
- ✓ Anxiety perceived regarding communication and/or stuttering by self or others
- ✓ Reactions including avoidance of speaking and/or words by self or others

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PROBLEM DEFINITION

Communication Discrepancies account for not only the **observable part of stuttering** (impairment in body functions); also **aspects of problem prohibiting a child from participating fully as other children may** who are fluent communicators (activity limitations, participation restrictions, and environmental barriers

(ASHA Scope of Practice, 2001, p.4)

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Federal Mandates 2004 & IDEA Reauthorization 2006:

- *Supplementary aids and services means aids, services, and other supports that are provided in regular education classes, other education-related settings, and in extracurricular and non academic settings, to enable children with disabilities to be educated with nondisabled children to the maximum extent appropriate. (300.42)*

- *(....*counseling services*,* athletics including transportation and health services*,* recreational activities*,* special interest groups or clubs, employment of students related to education..... *300.107 (b)*

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Federal Mandates 2004 & IDEA Reauthorization 2006:

- *"Each state must ensure that FAPE is available to any individual child who needs a special education and related services* ***even though the child has not failed or been retained in a course or grade, and is advancing from grade to grade."*** *300.101(c) (1)*

COMMUNICATIVE COMPETENCE	ASPECTS OF EDUCATIONAL PERFORMANCE		
	Developmental	***Functional***	***Academic***
Assertiveness Willingness to communicate when demonstrating fluency, disfluency, stuttering	Is willing to express age-appropriate wants and needs with teachers and others across the educational setting; participates as others do	Does initiate communication whenever, wherever, with whomever desired; Does self-advocate and/or engage in verbal leadership, speak with familiar, non-familiar peers and authority figures, participates verbally in non- and extracurricular activities	Does volunteer orally or read aloud; ask and answer questions; speak in small-large groups; lead discussions; complete oral presentations, utilize verbal output equal to teacher expectations
Confidence Self-assurance observed by volume of voice and non-verbal body language when demonstrating fluency, disfluency, stuttering	Is able to demonstrate age-appropriate verbal (volume) and non-verbal (eye contact, body position) language when communicating	Does use verbal and non-verbal self-assurance strategies while communicating across non- and extracurricular activities	Communication with appropriate eye contact, body posture, and volume during oral interactions related to academic learning
Effectiveness Ability to speak with ease, forward movement, and appropriate rate of information flow and intelligibility	Normal % of Other Disfluencies-absence of Stutter-Like Disfluencies No risk factors present for Pervasive Developmental Stuttering including: Family history, 3 years post onset; Acknowledgment of problem; speech, language, pragmatic, other contributing factors	Normal effort, rate, intelligibility of communication abilities during oral interactions related to non- and extracurricular activities	Can utilize communication skills that are intelligible or appropriate for participation in an oral capacity during interactions related to academic learning

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Stuttering as a Skill Problem	Communication Discrepancy
Example 1: Problem X happens (student prolongs words that begin with /s/) because of Y (student stutters); therefore if we do Z, (practice s words in the therapy room with speech tools), the problem (starting s words) will be reduced (student fluent on s-initiated words in SLP's office, but not in other places)	When X conversation occurs (student answers questions in class when called on unexpectedly and demonstrates increased tension on s-initiated words at onset of phrases) client demonstrates Y (tense prolongation, loss of eye contact, and reduced length of utterance) in order to (initiate speech-avoid unpleasant moment); Therefore, if we do Z (desensitize anxiety, improve eye contact, develop hierarchy with teacher, learn tools, role play, counsel), problem in conversation X will be reduced
Example 2: Student, not in speech therapy, does not want to give oral presentations (X) because he stutters (Y), therefore, a 504 plan is written (Z) that states he can submit a written paper instead, which will reduce the problem	Prior to and when oral presentations occur (X), student demonstrates heightened levels of anxiety and increased difficulty with fluent communication (Y). Therefore, 504 plan goals include presentation hierarchy, advanced warning of an oral presentation, preparation and practice with adult of choice (Z), and evaluation form completed-discussed (student-teacher-SLP); problem in conversation X which will be reduced

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PROBLEM DEFINITION

Account for ALL 3:

- What is the problem?
- What are the contributing factors?
- What are the communication discrepancies?

→ **PLAAFP** (from the first two questions)

→ **ADVERSE IMPACTS** (from the third question)

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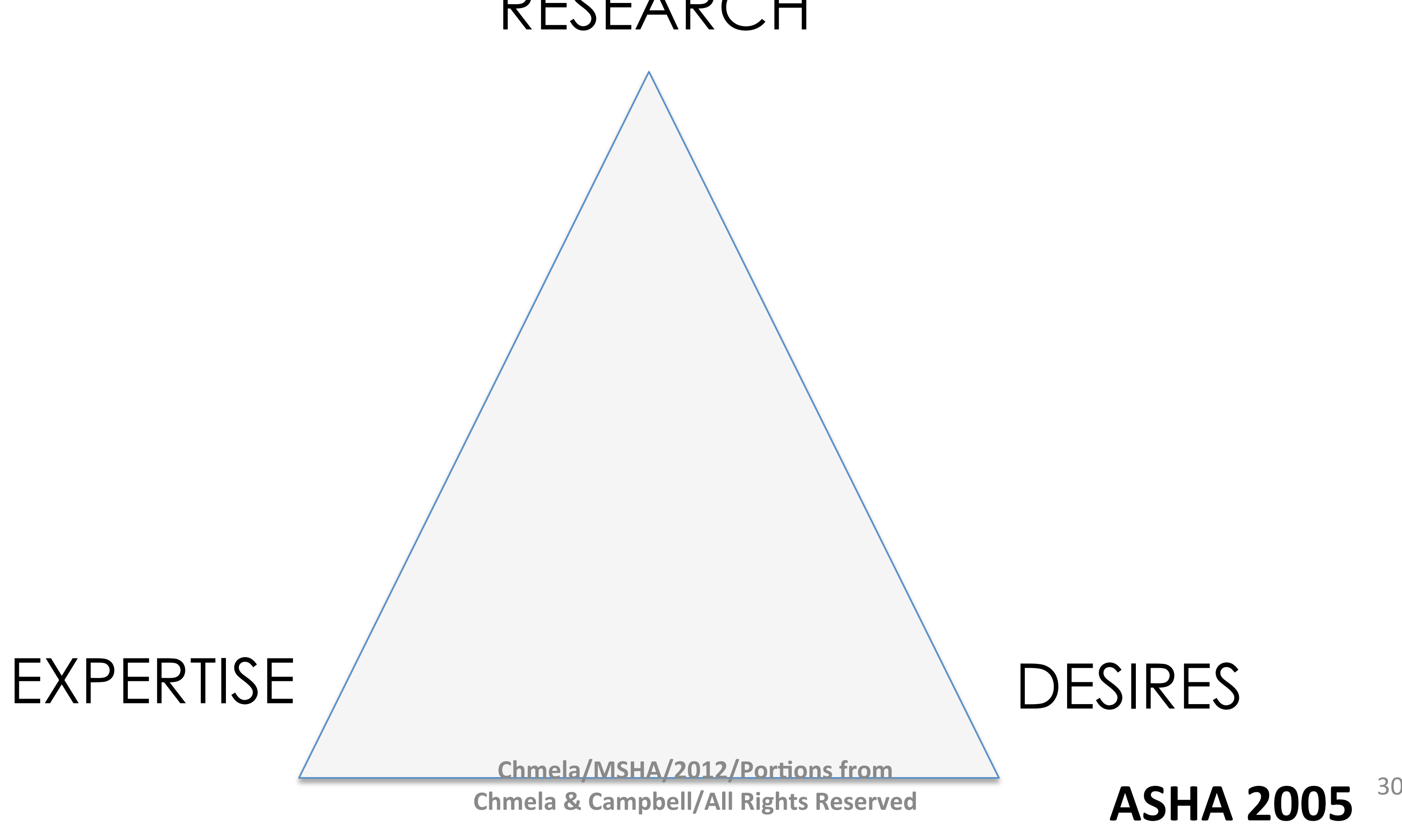
HEURISTICS



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HEURISTICS

- Multifactorial Model of Stuttering (smith & Kelly, 1997):
  - Stuttering problems don't stay the same (dynamic)
  - Much is happening before the moment occurs
  - Non-linear nature

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HEURISTICS

- Teachers' and Administrators' **negative stereotypes**
- Teacher' expressed **a positive interest**; learning from SLPs about fluency problems

- Significant difference between **school-age peers' perceptions of stutterers** and nonstutterers (Franck et Al., 2003)

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Blood et al., 2003:

- 2, 628 School-Age children who stutter K-12
- Almost 65% had one concomitant disorder
- Males displayed greater proportions of all types
- 46% school-age children who stutter had articulation/phonology disorders
- 26% had language disorders

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HEURISTICS

- Children who stutter have more Sensitive Temperaments

*"A **temperamental bias** refers to a distinctive profile of feelings and behaviours that originate in the child's biology and appear early in development."*(Rothbart)

*"**Sensitivity** is defined as temperamental and sensory responsiveness and susceptibility to people and the environment." (Oyler, 1996b, 1999)*

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HEURISTICS

"The **construct of temperamental sensitivity** include the following components: emotional sensitivity, reactivity, stress awareness and coping ability, sensitivity to time pressure, noise, light, and touch."

(Oyler, 1999, 2001)

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HEURISTICS

Some temperamental characteristics differentiate CWS from CWNS and could conceivably contribute to the exacerbation, as well as maintenance, of their stuttering.

(Kagan)

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HEURISTICS

- *Preschool CWS slower to adapt, exhibit less rhythmicity, and less distractible*
- *CWS boys exhibited significantly less expressive temperaments*
- *CWS showed higher emotional reactivity, lower emotion regulation, and lower attention regulation*

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HEURISTICS

- ***(Oyler, 1996): Children who stutter ages 7-12***
  - *Significantly more sensitive and vulnerable*
  - *84% of CWS fell in the highly sensitive range as compared to 36% of the children who do not stutter*
  - *Overt severity not related to degree of vulnerability, but the **number of concomitant problems was***

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HEURISTICS

- *"The highly sensitive person is more aware of subtle levels of stimulation…will react more readily to subtle experiences" (Aron, 2002)….*

… "and has a built-in tendency to react to stimuli more strongly, and experiences more intense stimulation levels. One who is highly sensitive can become over stimulated, overwhelmed, and stressed more readily than the less sensitive person."

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HEURISTICS

- ***Oyler (1999): Children ages 3-17***
  - *Significantly greater sensitivity, suggestion of a possible innate sensitivity as of age 3; sensitivity increased over time*

Emotional reactivity higher (Karass et al., 2006); **no relation** (Anderson et al., 2003)

CWS less skilled at attention shifting (Anderson et al., 2003; Karass et al., 2006)

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HEURISTICS

Dual Diatheses Stressor Model (Conture & Walden)

Conture, E. & Walden, T. (2012). Dual Diathesis-Stressor Model of Stuttering. In Beliakova, L., & Filatova, Y. (Eds.) *Theoretical Issues of Fluency Disorders*. Moscow: Vlados.

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HEURISTICS

✓ **Emotional Diathesis** (i.e., lower thresholds for novelty, change and/or difference)

" …intermittently, but fairly predictably activated by environmental change…"

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HEURISTICS

Dual Diatheses Stressor Model (Conture & Walden)

✓ **Speech-Language Diathesis**: difficulties quickly, efficiently and spontaneously planning and producing speech-language

"…intermittently activated by environmental requirements for spontaneous, on-the-fly generation of speech-language…"

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HEURISTICS

Dual Diatheses Stressor Model (Conture & Walden)

✓ ***"Frequent and strong emotional arousal, especially unregulated emotional arousal, may divert attentional resources from efficient, rapid pre-verbal cognitive planning"***

- Discourse lacks either cohesiveness and/or a clear beginning, middle or end
- Continues for inappropriately long periods of time
- Talking at you (monologue) rather than with you

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HEURISTICS

Dual Diatheses Stressor Model (Conture & Walden)

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HEURISTICS

Dual Diatheses Stressor Model (Conture & Walden)

- A Combination of genetics & environment
- Variations in stuttering relate to variations in stressors that activate underlying diatheses, but that the stressors need not be unusual or pathological in nature
- Multiple possible contributors to this challenging communication disorder

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HEURISTICS

Evidenced Based Research

- Prolonged speech stuttering therapy, or *GILCU stuttering therapy, preferably* ***with their parents*** *and with* ***either a DAF device*** *or an* ***EMG device***

- Response Contingencies

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"One thing is sure. We have to do something. We have to do the best we know how at the moment; If it doesn't turn out right, we can modify it as we go along."

— Franklin D. Roosevelt

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HEURISTICS

Several meta-analyses of treatments producing beneficial results have been published:

Andrews et al, 1980; 1983; Cordes, 1998; Thomas & Howell, 2001, Shenker, 2005; Ratner, 2010)

Bothe, A. K., Davidow, J. H., Bramlett, R. E, & Ingham, R. J. (2006)

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HEURISTICS

Bothe, A. K., Davidow, J. H., Bramlett, R. E, & Ingham, R. J. (2006)

Applied criteria to 162 studies published between 1970-2005

- 39 met criteria; 9 were for school-aged children
- All noted improvements in child's fluency
- Transfer and maintenance of these skills a significant concern

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HEURISTICS

- **Prolonged speech stuttering therapy**

- ***GILCU stuttering therapy***: *Gradual Increase in Length & Complexity of Stuttering*

- ***FEEDBACK***: *preferably with their* ***parents (DAILY)*** *and with* ***either a DAF device*** *or an* ***EMG device***

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Basic Principle Problem Solving

HEURISTICS

- **<u>Response Contingencies</u>**: Praise for what is desired; minimal feedback for what is not; learning to self-correct (form of stuttering modification)

- **Regulated Breathing & Airflow**

- **Systematic Transfer & Outcomes Data**

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Recent Research

Lidcombe Program with school-age children

(Harrison, Bruce, Shenker, & Koushik, 2010; and Koushik et al., 2009)

- n=11
- 6 to 10 years old (M_{age} = 9 years)
- **Several challenges:**

    Time to do structured conversations

    Parents having difficulty learning how to carrying out procedures

    Maintenance of low levels of stuttering in natural speaking situations

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HEURISTICS

The key factor determining the validity of the treatment approach is the "client's individual response to treatment"

Kully, D. & Langevin, M. (2005)

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HEURISTICS

Core Basic Principles (Gregory, 1968; 1975; 2003; Gregory, Campbell, & Hill 2003)

1. Differential Evaluation-Differential Treatment:

2. Relationship

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Federal Mandates 2004 & IDEA Reauthorization 2006:

- *"…An Evaluation requires a variety of assessment tools and strategies to gather relevant functional, developmental, and academic information about child, including parent report…"*

- *"…The public agency must (2) not use any single measure or assessment as the sole criterion for determining whether a child is a child with a disability."   300.304 (b)*

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HEURISTICS

2. Relationship

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HEURISTICS

3. Counterconditioning, Deconditioning, Desensitization

4. Modeling

5. Guided Practice

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Basic Principle Problem Solving

HEURISTICS

Variables to consider when guiding practice and setting up Transfer Activities:

- **Goal**

- **Language Formulation**
  - contextualization
  - propositionality of topic
  - discourse structure, semantic complexity

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HEURISTICS

- Model:
  - Immediate Model, Delayed Model, Intervening Model, No Model
- Reinforcement:
  - Percentage, Type, & Frequency of Feedback
- Who, Where, What: Persons present, place, and activity during conversation

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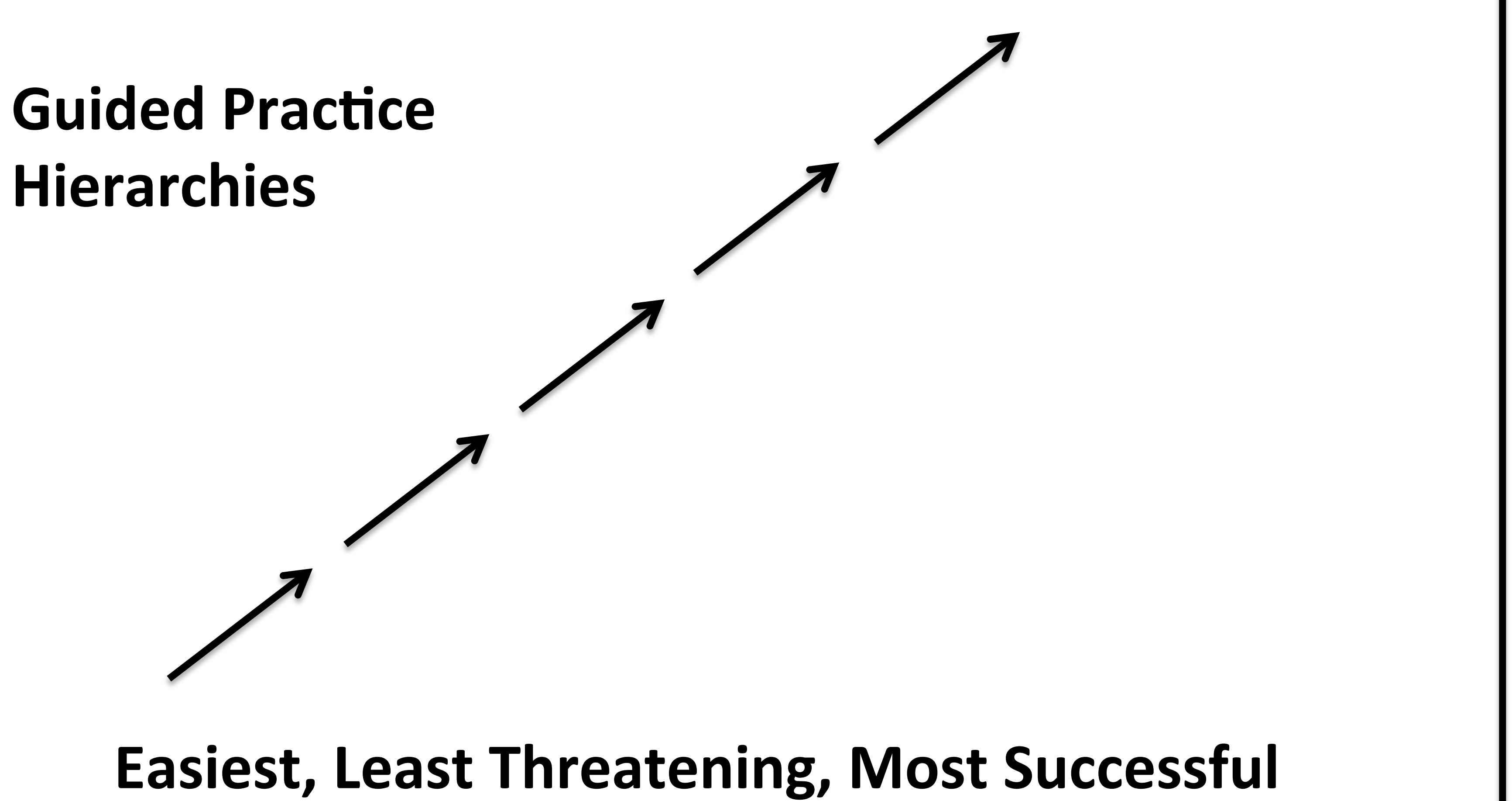

Support varies depending on needs of child within the client-clinician dynamic interactive relationship(happening in natural conversations in and out of naturalistic contexts

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Guided Practice

- Within and outside treatment sessions: practice of proprioceptive drills (prolonged speech) AND communication within natural contexts
- Setting up the child to be successful
- Setting all other parties up to be successful

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Using multisensory strategies

- Contextualized concepts
  writing, drawing, objects
- How Does Your Engine Run? (Alert Program)
- Body, Transitions, Attention

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HEURISTICS

6. Reinforcement

7. Self-Monitoring, Self-Reinforcement

8. Generalization

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9. Transfer

10. Gradual Dismissal, Follow-Through & Maintenance

11. Integration of Affective, Cognitive, & Behavioral Factors

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- Success inside therapy- Success outside therapy
- Selected Conversational Partner (s)
- Guided Direction
- Weekly short practice contract
- Reviewed at next session

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4 Important Factors to Consider

Goal difficulty

Goal reflects what was successful during the therapy session

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4 Important Factors to Consider

Goal Commitment:

Select a conversational partner with a positive relationship

Have the client help develop the goal

Make the topic-goal meaningful

Create a reward system to strengthen motivation

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4 Important Factors to Consider

Goal Specificity:

Each guided practice contract has a clear and precise goal

Conversational partner has been instructed, shown, and has attempted type of feedback the client is most comfortable with receiving

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4 Important Factors to Consider

Goal Acceptance:

The extent to which a client adopts the goal as his or her own

Goals should reflect what both the child and the conversational partner want to see improved

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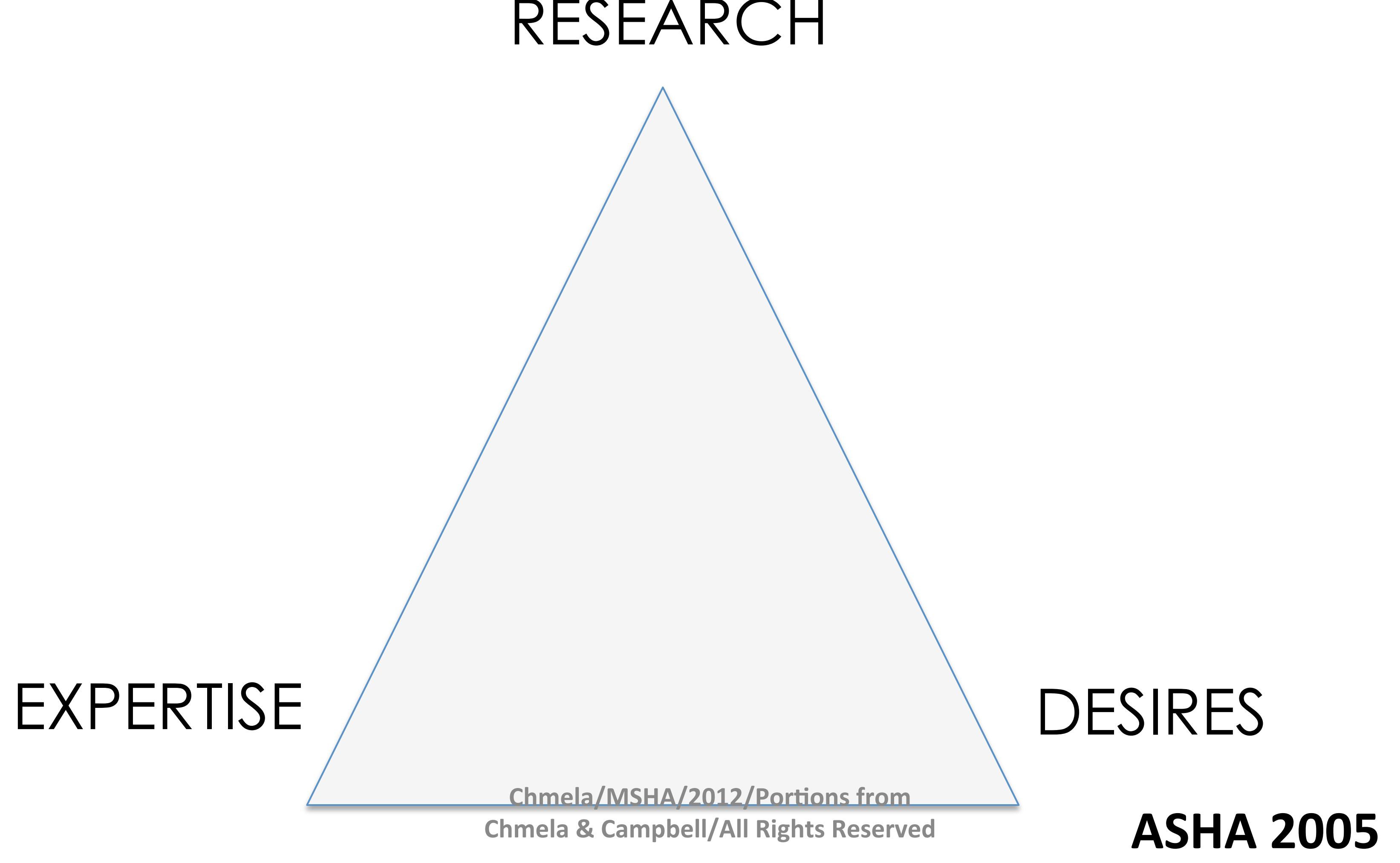
SOLUTIONS-ACTIONS



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ACTIONS: Differential Evaluation

- Initial & ongoing investment
- Variations: Assume Nothing
- Past, Present, Future

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ACTIONS: Differential Evaluation

- Is there a fluency disorder?
- What is it?
- What are the contributing factors?
- What are the communicative discrepancies?
- What does everyone want?

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RISK FACTOR CHART: Summary of Evaluation Findings

Family history of stuttering ☐ Person/s relationship to child______________________ ☐ Did person/s continue to stutter or *report* they feel they still stutter? ______________	No family history
Male gender	Female gender
Onset after three years, five months	Onset before three years, five months
Stuttering longer than 6 months	Stuttering less than 6 months
Presence & Higher proportion of Stutter-Like Disfluencies compared to Other Disfluencies ☐ Part-word repetitions, single-syllable word repetitions, prolongations and blocks ☐ CWS demonstrates multiple units of repetitions, faster units, shorter pause duration between repeated units ☐ Secondary stuttering behaviors	Presence of Other Disfluencies; Stutter-Like Disfluencies not present ☐ Unfinished words ☐ Revisions ☐ Interjections ☐ 2-more syllable word repetitions ☐ Phrase repetitions
Sensitive temperament profile: higher level of reactivity, lower sensory threshold, other	Less sensitive profile
Concerns regarding language abilities, phonology, articulation, Overall development	No other concerns
Child/Parents/Caregivers experiencing significant anxiety, reacting negatively to problem communicating	Minimal or no anxiety regarding problem

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ACTIONS-Differential Evaluation

Evaluation Protocol for School-Age Children

A. Motor: *Pattern of fluency; presence of Stutter-Like Disfluencies, Other Disfluencies, Descriptive features,Speech Rate*

✓ ***Formal Measures:***

- Test of Childhood Stuttering (TOCS); ages 4-12; Gillam, Logan, & Pearson; Pearson Assessments **OR**
- Stuttering Severity Instrument-4; Riley & Riley

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ACTIONS-Differential Evaluation

✓ ***Informal Ratings:*** (Onslow & Packman, 2003)
or ***Real-Time Analysis*** (Yaruss)

- Severity Rating
- Stutters Per Minute, Count
- Online % Stuttered Syllables
- **www.natke-verlag.de/silbenzaehler/index_en.html**

- ***Articulation (Phonology), Oral Motor, Voice***

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ACTIONS-Differential Evaluation

- **Stuttering? Fluency Disorder?**

- **Differentiating between stuttering and CLUTTERING:** Definition currently focuses ***only*** on the cluttered speech; provides for a more straightforward evaluation

*"Cluttering is a fluency disorder wherein **segments of conversation** in the speaker's **native language** typically are perceived as **too fast overall, too irregular, or both**."*

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ACTIONS-Differential Evaluation

*The **segments** of rapid and/or irregular speech rate must further be **accompanied by one or more** of the following:*

- *(a)* ***Excessive "normal" disfluencies or Other Types***
- *(b)* ***Excessive collapsing or deletion of syllables;*** *and/or*
- *(c)* ***Abnormal pauses, syllable stress, or speech rhythm."***

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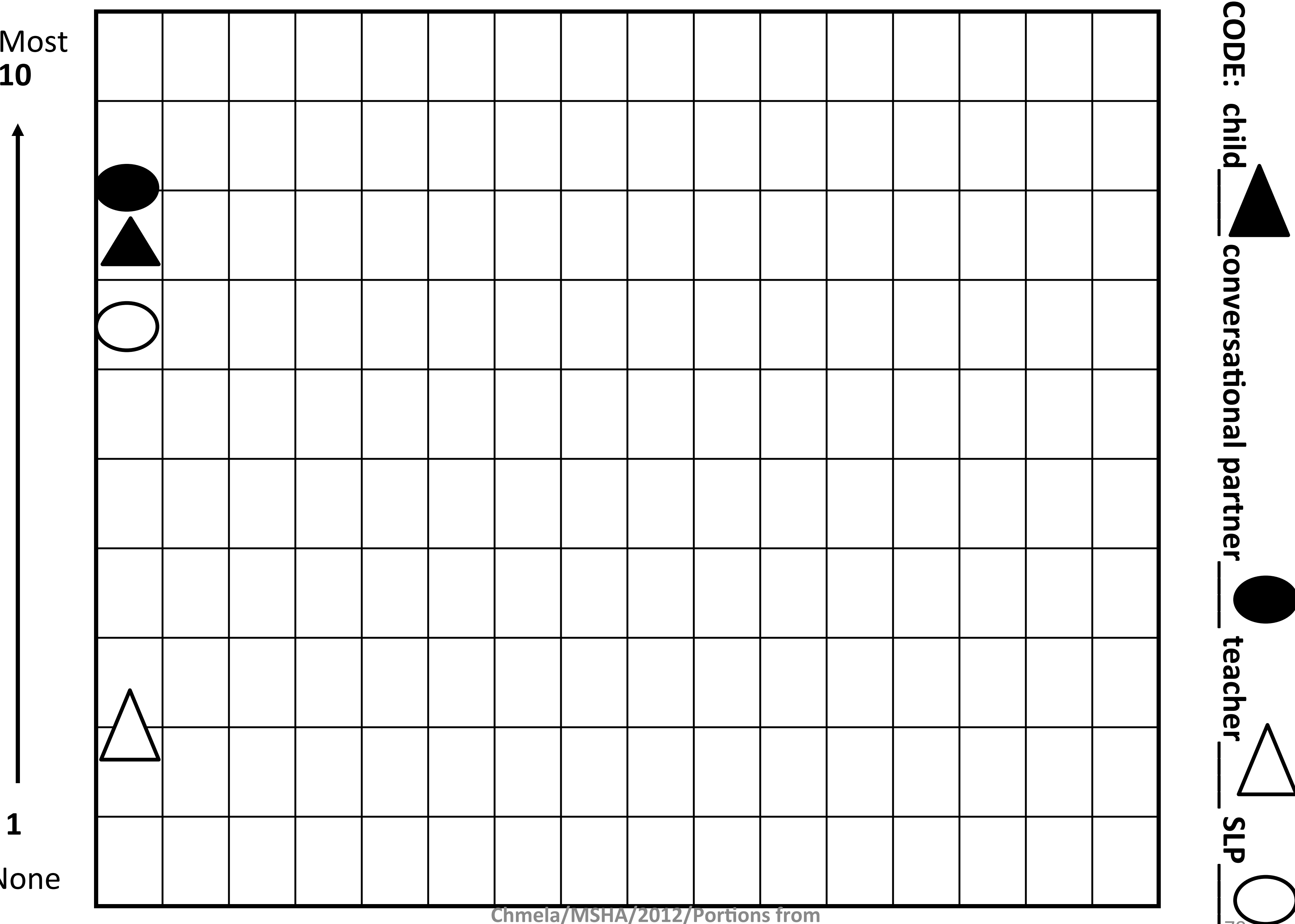

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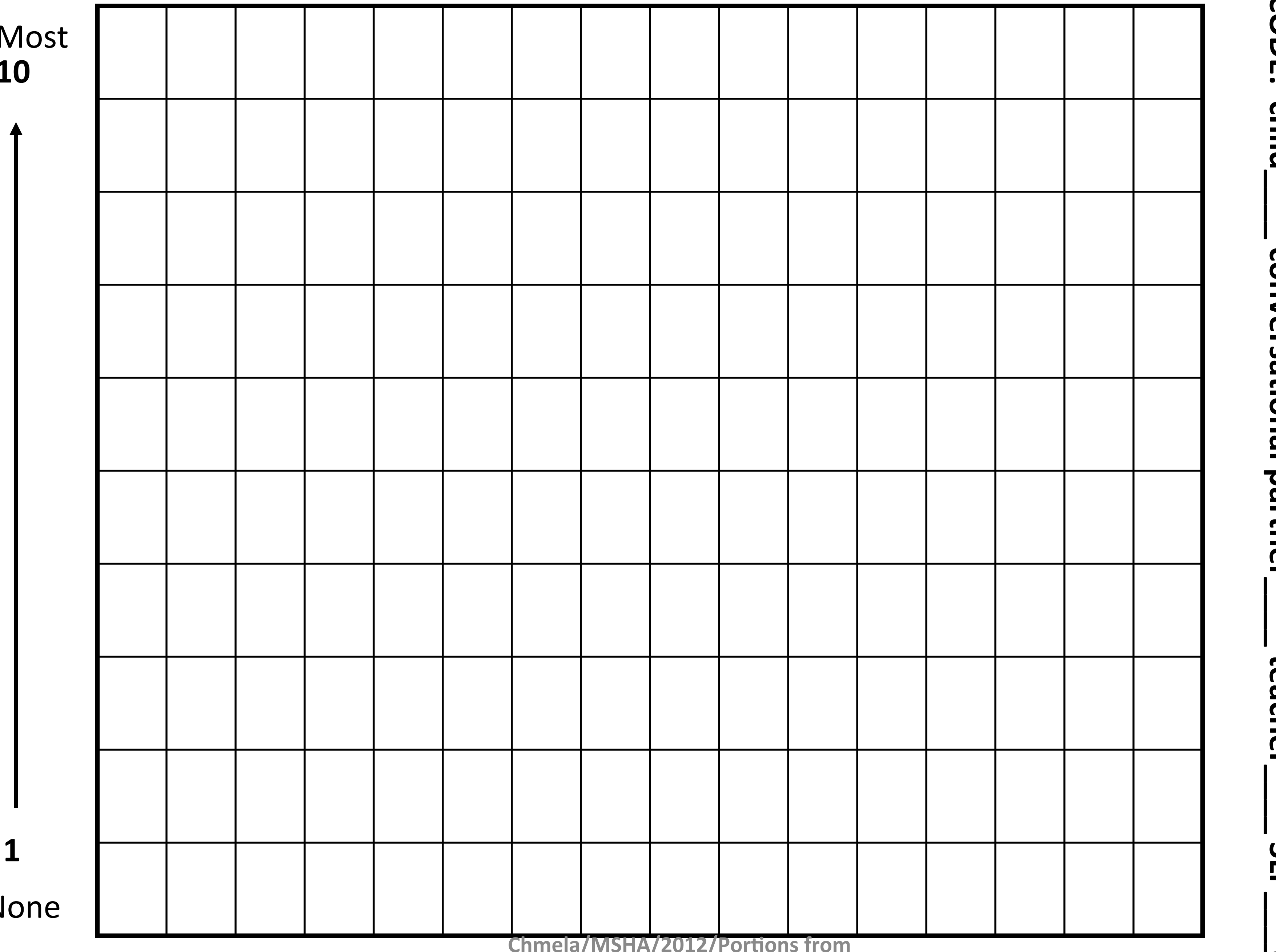

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ACTIONS-Differential Evaluation

Social-Emotional & Sensory

- Emotions, reactions, interactions and circumstances related/contributing to communication difficulty

Formal Measures:

- Behavioral Assessment Battery for School-Age Children Who Stutter (BAB); ages 6-15; Brutten & Vanryckeghem; Plural Publishing

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ACTIONS-Differential Evaluation

Social-Emotional & Sensory, cont.,

- Overall Assessment of the Speaker's Experience of Stuttering (OASES); ages 7-12; 13-17; Yaruss & Quesal; Pearson Assessment

- Dunn; Pearson Assessments:
  - Sensory Profile: ages 3-10
  - Adolescent/Adult Sensory Profile: ages 11-up
  - Sensory Profile School Companion

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ACTIONS-Differential Evaluation

Informal Measures:

- Pencil-Paper Tasks; ages 8-17; (Chmela & Reardon, 2001); Stuttering Foundation of America
- Informal documented dialogue: general to more specific questions

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- Informal discussion and rating of 9 Characteristics of Temperament with parents (Thomas & Chess)
- Informal dialogue with "Client" regarding responses to various sensory stimuli, level of tolerance, and what they do to "regroup"
- Informal rating: How competent as a communicator do you think you are right now? (**Assertive, Confident, and Effective)**

ACTIONS-Differential Evaluation

Cognitive-Language Information

- Standardized Assessment of Language Abilities
- Narrative Sample or Standardized Measure
- School Performance

Full History and Information provided by Parent/Caregiver and Teacher/s environment

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ACTIONS-SOLUTIONS-OUTCOMES

"The key factor determining the validity of the approach is the client's individual response to treatment." *Kully, D. & Langevin, M. (2005)*

ACTIONS-SOLUTIONS-OUTCOMES

Essential Outcomes

- Reduction of Communication Discrepancies chosen as therapy goals
- Education of child, family, relevant others
- Independent Problem Solving by child, family, others

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ACTIONS-SOLUTIONS-OUTCOMES

- ***4 Non-Linear Phases of Therapy Activities***

- *Continuous education, problem solving, counseling, & individualizing of services with active participation of family and relevant others throughout the entire process are standard practice*

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ACTIONS-SOLUTIONS-OUTCOMES

- **Therapy Sessions involve activities stretched over 4 non-linear phases; 6 months chart review**

1. Education & Awareness
2. Proprioception & Regulation
3. Regulation & Natural Communication
4. Spontaneous Interactions

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ACTIONS-SOLUTIONS-OUTCOMES

1. Education & Awareness

-Brain & Body

-Circle of Breath

-Onset of Voice

-Sound Placement, Contact, Movement

-Voice Power

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2. Proprioception and Regulation

-Prolonged speech practice (Proprio Drills)

-Regulation Strategies

-Stuttering Modification: (sensing tension, time-out, restart)

-Flexibility with Fluency Shaping: (Easier Relaxed Approach or moving in with a slightly slower and relaxed movement, letting the rest of the phrase remain natural; pausing; beginning phrase again; normal rate, pitch, loudness, expression)

Example: Self-created rating scale

1--10

No stuttering

Lots of stuttering

1--10

Thinking positive
thought about
myself-stuttering

Thinking negative
thought about
stuttering-myself

1--10

Feeling very
comfortable
about speaking

Feeling lots of anxie
about speaking

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3. Regulation & Communication

- Connecting "in the box"
- Shifting Attention and Stabilizing
- Listening
- Social talking
- Complete Sentences
- Describing
- Narratives

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- Pragmatics:

a) Give and take roles in a conversation

b) Connecting in the "box"

c) Regulation & Communication

- Weiss, A. L. (2004). Why we should consider pragmatics when planning treatment for children who stutter. *Language, Speech, and Hearing Services in Schools*. *35*, 34 - 45.

✓Regulating Strategies

What I can say:

- Are you telling me a story?
- Come over here by me so I can listen better.
- "Oh you seem so excited. Let's come over here and talk about this!"
- Let's have a conversation about…
- Oh, wait..I am confused, can you tell me again what happened first?
- Wait, let's stop walking so I can listen better.
- Watch my face
- Oh, are you talking to me? Tap me first so I know.
- We are ready to transition. It's good to not talk during transitions.

What I can do:

- Only talk face to face. Insist on it as a family rule.
- Create calmer transitions.
- Physically move to the child to put yourself in his communicative space.
- Put down what you are doing.
- Create a turn taking talking time during dinner; use a physical object that someone gets to hold
- Others:

  1. Model framing: "I have an idea.."I have a question.." "Let me tell you something…" "This is the funny part"; practice telling jokes and pausing in certain places on purpose
  2. Provide structure in conversations

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✓ **Creating conversations that impact regulation:**

- Parents are taught to observe when child's ability to regulate decreases
- Clinician creates situations within therapy setting and provides feedback
- Parent creates situations at home and provides feedback; negotiation
- Parent also works on strategies to help child regulate
- Pragmatics: "Knowing **when** to say **what** to **whom** and **how much**." Hymes (1971)

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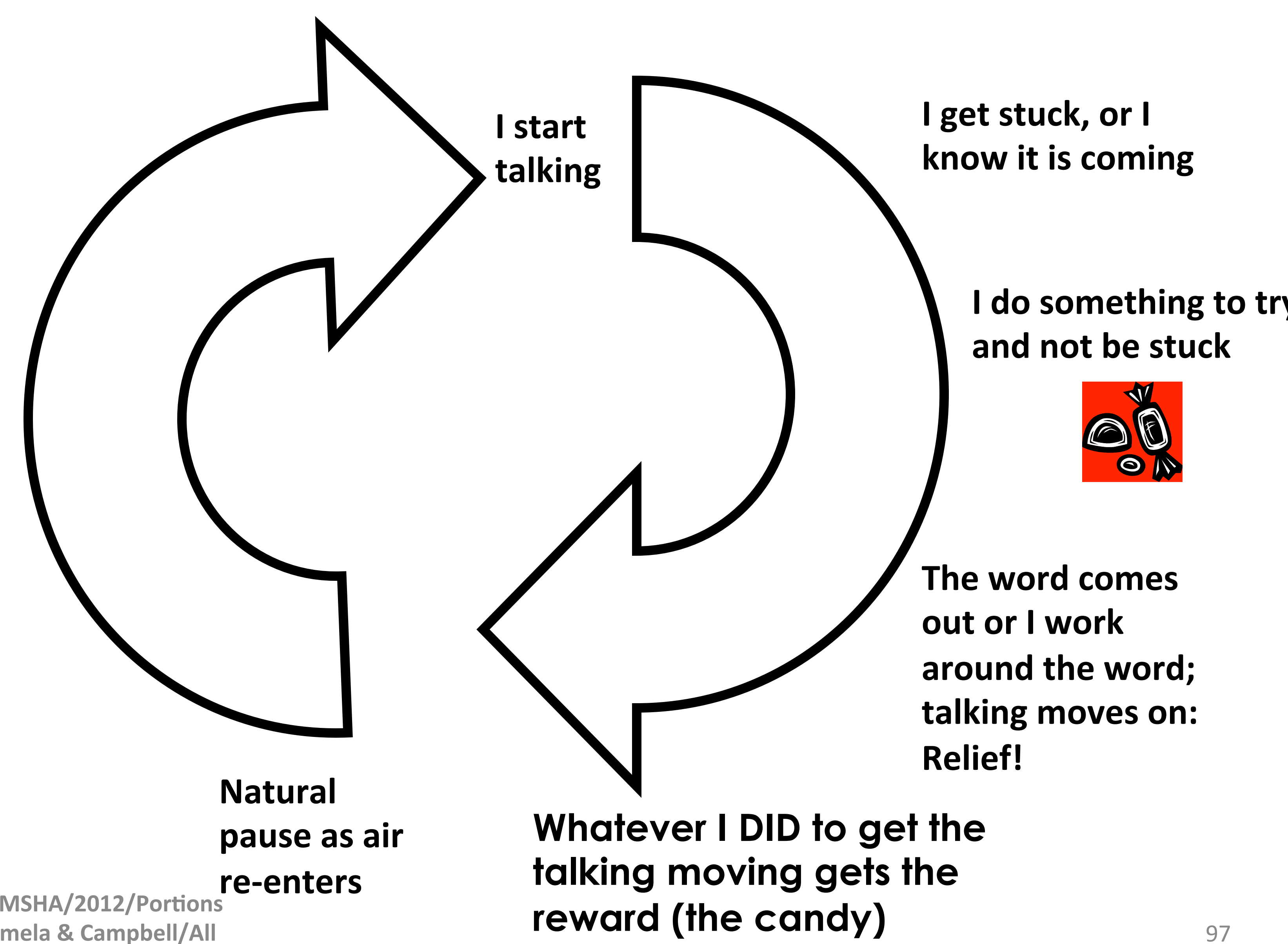
Changing talking in real conversations



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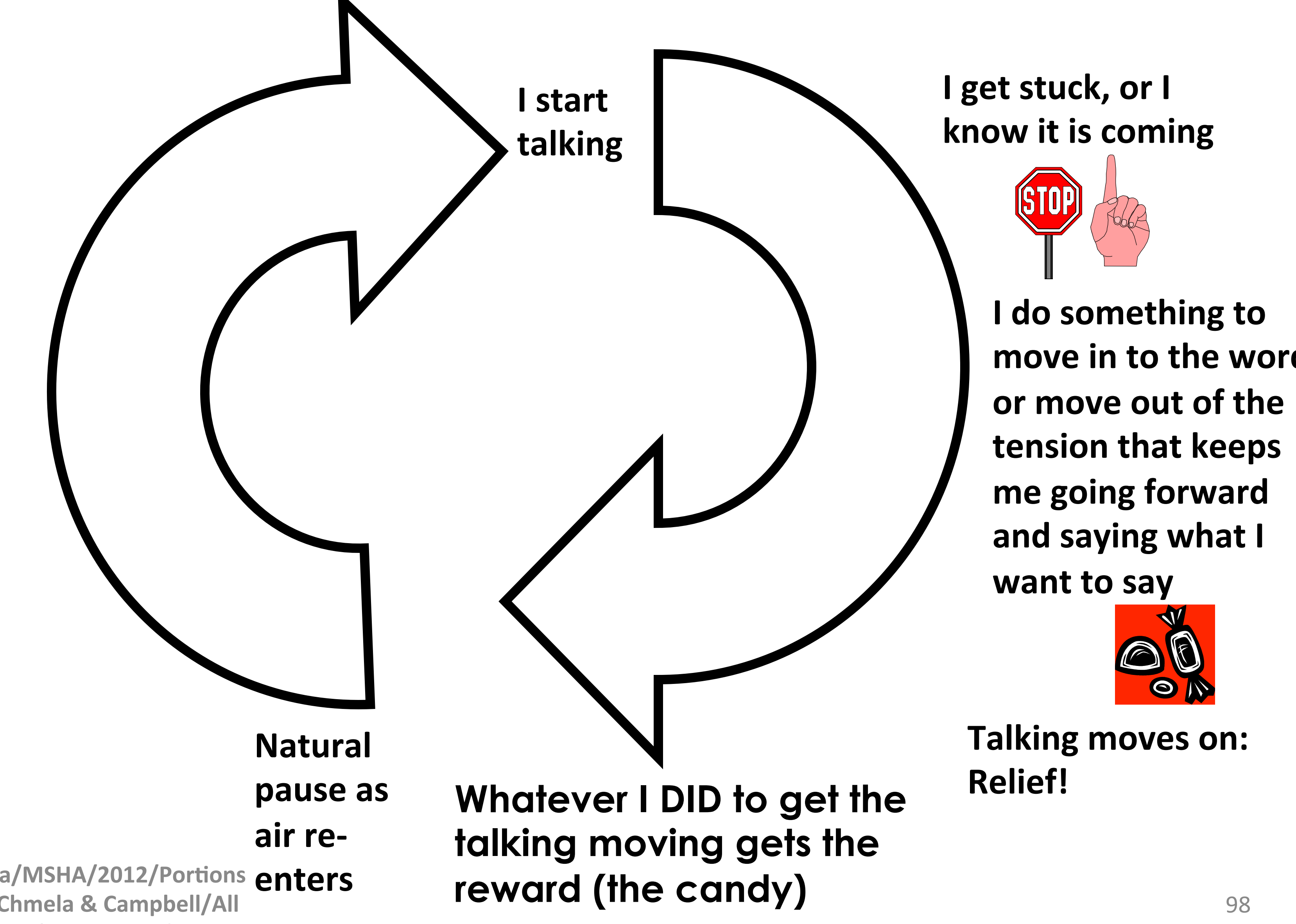
Changing talking in real conversations



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Deal with emotions and attitudes related to the stuttering problem as you need to

- A series of conversations
- Create new beliefs based on how we talk about the problem: Cognitive Therapy
- Focus on what the child wants
- **Highlight conversations that need to take place along the way**
- Have them
- **Teach the child/conversation partner identify and solve problems along the way**

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4. Spontaneous Interactions

- Within therapy room with SLP; parent, teacher, others
- Contract Card assignments
- Expected, Unexpected
- Familiar, Unfamiliar
- Self-Report; Other Report

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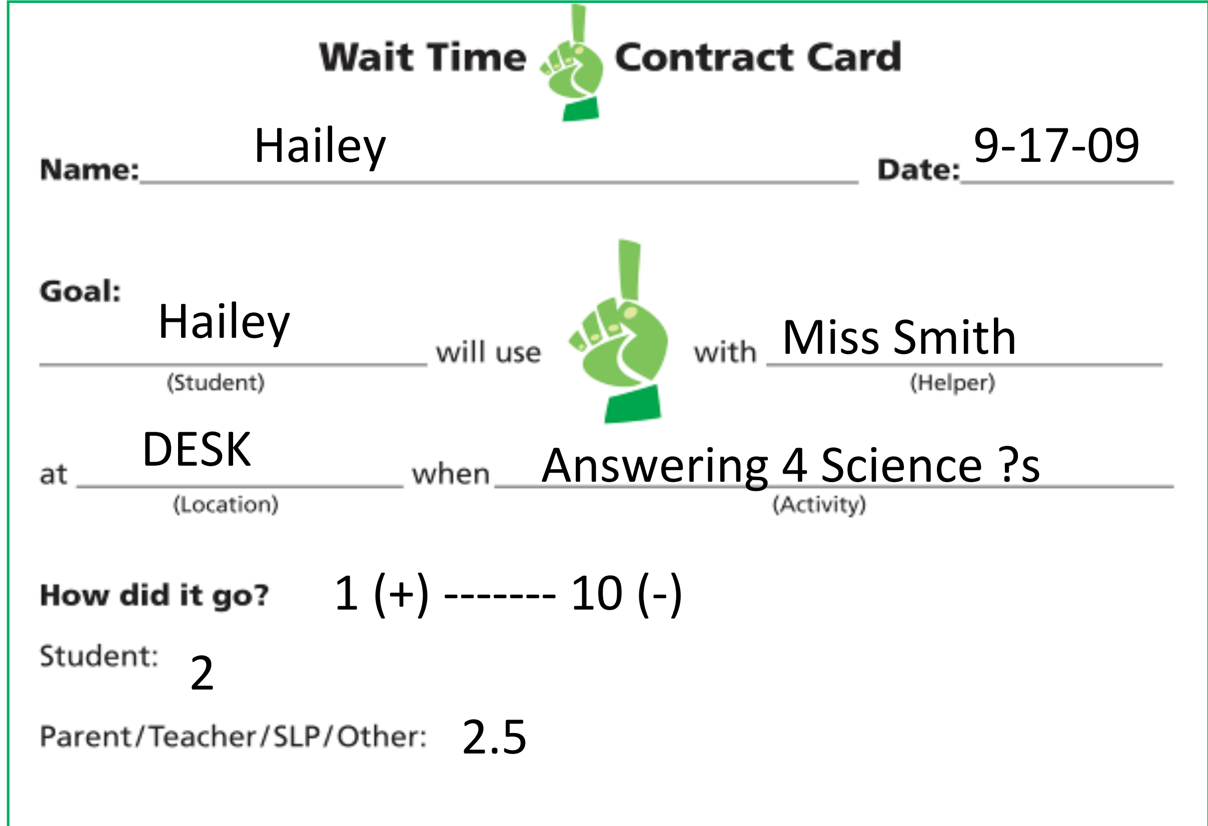
✓Contract Cards:

1. creating a short goal to be accomplished with teacher (or other)


Wait Time Contract Card

Name: Hailey Date: 9-17-09

Goal: Hailey (Student) will use with Miss Smith (Helper)

at DESK (Location) when Answering 4 Science ?s (Activity)

How did it go? 1 (+) ------- 10 (-)

Student: 2

Parent/Teacher/SLP/Other: 2.5

2. goal reflects what target and language level would bring most success; targets things talked about in school

- *The individual Education Plan "must include (a) (4) a statement of the special education and related services and supplementary aids and services, based on peer-reviewed research to the extend practicable, to be provided to the child or on behalf of the child…*

- *A free and public education must be based on the child's unique needs and not on the child's disability….300.300 (a) (3) (ii)*

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- Develop simple outcome measures; collect weekly data (variability)
- Speech Notebook: Follows the child
- Review outcomes often and as a team, including the child

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- Set up Transfer within each session & with outside Contract Cards

- Teach all parties how to problem solve within variability of disorder

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- **Keep close data on what you are doing**
- Chart Reviews
- Altering plans based on changes in location, development, other
- Consider transitions within disctrict, between speech-language pathologists

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Basic Principle Problem Solving

GENERAL QUESTIONS

- Is there a problem and what is it?
- Why is it happening?
- What do all parties desire?
- What does research say?
- What does our expertise say?
- What is the plan?
- How will the plan be implemented?
- Are we being successful?
- How do the Basic Principles remain constant? (to be reviewed)

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Basic Principle Problem Solving Application

- Step 1: Document the problem
- Step 2: Document questions about the "problem" based on circumstances provided, reflecting on the Basic Principles that may apply
- Step 3: Based on the questions, determine if one or several smaller problems can be defined
- Step 4: Create a hierarchy in rank order of highest priority to lower priority steps to solve the problem.

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Basic Principle Problem Solving in Ongoing Treatment

Presenting Problem: P.D., age 8-2

An email was received from teacher asking speech-language pathologist what accommodations she was considering for P.D. regarding an oral presentation: videotaping the project at home and sharing the video with the class; doing it just for the teacher; doing it for a smaller group of children or possibly "modifying what he needed to share."

Quote from email: ***"There will be other presentations during the year. We can always start smaller and build upon his speaking skills or amount of what he shares throughout the year. "***

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P.D. a severe stuttering disorder, characterized by part word repetitions, prolongations, and blocks accompanied by significant tension. Contributing factors include avoidance reactions, negative attitudes and feelings associated with communication, mixed receptive and expressive language disorder, articulation disorder, and support services for reading, writing, and math; highly sensitive temperament, diagnosis of Sensory Processing issues; Environmental factors include fast paced lifestyle and four siblings of comparable ages. Adverse impacts include reduced verbal output with unfamiliar listeners at home, in school, and other environments, reduced participation within small and large group discussions, difficulty advocating when teased by peers, and difficulty with oral reading.

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1.Basic Principle Problem Solving for clinician

What's going on?

P.D. has an oral presentation approaching in school. His teacher requested my input.

I feel confident because I have a good relationship with P.D. and one without assumptions.

I want to problem solve with *him* before consulting with school therapist and teacher.

2. Reflect on the Basic Principles: Differential Evaluation-Treatment (What is he thinking, feeling about this situation at this time in this circumstance?); Relationship (Is he experiencing anxiety about this?) Counterconditioning, Deconditioning, Desensitization (Does his anxiety need to be desensitized? Do we need a hierarchy?) Guided Practice (How can I guide practice of this presentation in therapy, at home, and at school?) Reinforcement and Self-Reinforcement (What is it that is important to P.D.? How will he measure his outcome of success?) Integration of Motor, Social-Emotional, Sensory, Cognitive, Environmental factors (How are class peer relations going? What are specifics of assignment? Will he sit, stand? Sensory Input Plan?)

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Problem Solving with P.D; led to **guided practice plan** for presentation, further **communication & education** with **teacher & parent; continued problem solving and guided practice:**

- ✓ **Emailed teacher: no accommodation**
- ✓ **Prepared presentation and practiced**
- ✓ **Discussed outcome of success**

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Differential Evaluation &Treatment

- ❑ Did the evaluation provide information regarding the fluency pattern, as speech-language factors, attitudes and feelings about the problem from the child, parents & caregivers, teachers, and others as well as other factors?
- ❑ Are other concerns/diagnoses in addition to the fluency disorder being assessed/ addressed?
- ❑ Are long term goals based on performance discrepancies?

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- ❑ Are benchmarks incorporating all aspects of effective communication necessary to address: efficiency, assertiveness, confidence?

- ❑ Are the child's needs being met in individual/ group settings?

- ❑ Has the therapist taught the parents/caregivers and teacher/other partners involved about the Basic Principles?

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Relationship

- Is the relationship between the therapist and parents, caregivers, teachers and/or conversational partners based on mutual respect?
- Does the child like coming to therapy? Is the therapist listening, understanding, validating, observing, and encouraging the child? Others?
- Does the child related well to others, if in a group?

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- Does the therapist show interest in what the child is interested in?
- Is the relationship between therapist and child genuine and meaningful?

Counterconditioning, Conditioning, & Desensitization

- Are counterproductive thoughts, feelings, and behaviors gradually being replaced with more productive ones?

- Is therapy gradually desensitizing negative attitudes and feelings about stuttering as indicated, by the use of hierarchies moving from easier to more difficult in terms of fear resulting in word substitution, speaking avoidance, or both?

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- ❑ Are maladaptive speech responses (tension) or behaviors (avoidance) associated with stimulus conditions (sounds, words, or situations) being conditioned (efficient, assertive, confident communication patterns across various conversations in various places) in order to reach long term goals?

Modeling

- ❑ Does the therapist model a speaking pattern that is easy and relaxed, with frequent pauses and increased listening time?

- ❑ Is the therapist modeling pseudo stuttering, modifying stuttering, and easier voluntary disfluency in a comfortable manner as indicated?

- ❑ Has the child modeled for others what he or she is learning?

- Does the therapist teach by modeling through example, regardless of where or whom she is communicating with?
-

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Guided Practice

- ❑ Are hierarchies of difficulty utilized during practice within and outside of therapy?

- ❑ Are hierarchies practiced in a fluid manner, with manipulation of variables including: *targeted goals, language formulation, model and reinforcement, as well as who is there, what the activity or topic is, and where it is taking place?*

Reinforcement

- ❑ Does the therapist-child relationship foster meaningful reinforcement?

- ❑ Is the reinforcement varied in frequency (schedule), manner (verbal, nonverbal, tangible), and type (praise, acknowledgement, self-reinforcement, listener requested correction) in which it is provided?

- ❑ Is provided reinforcement behavior specific?

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- ❑ Is reinforcement occurring during Generalization and Transfer?

- ❑ Is the child comfortable with the ways in which related others are providing reinforcement

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Self-Monitoring, Self-Reinforcement

- ❑ Does the child know what he/she is working on and why?
- ❑ Has the child taught others what he/she is learning in therapy?
- ❑ Does the child have consistent opportunities to self-evaluate his/her own productions?
- ❑ Has the therapist talked about this principle with the child?

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Generalization

- ❑ Are opportunities for generalization provided each therapy session, whereby structure of activity is changed or removed?

- ❑ Has the therapist discussed this concept with the child?

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Transfer of Behavior Change

- ❑ Are there teacher (or other) and parent/caregiver partners engaging with the child in daily practice developed by the therapist and child?

- ❑ Does the daily practice mirror successful practice within therapy?

- ❑ Do practice partners know what is being targeted and how to provide feedback to the child?

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Transfer of Behavior Change, cont.

- ❑ Are performance discrepancies being targeted by using hierarchies of difficulty (see Guided Practice)?
- ❑ Is the therapist practicing those conversations in places other than the therapy room?
- ❑ Has the concept of transfer been discussed with the child?

Follow Through & Maintenance

- ❑ Is gradual dismissal from therapy planned?
- ❑ Is there a maintenance plan developed and approved by all relevant parties?
- ❑ Has a plan for relapse discussed by all relevant parties, including indicators for returning to treatment across communication efficiency, assertiveness, and confidence?
- ❑ Have opportunities for ongoing support been provided to all relevant parties?

Integration of Motor, Social-Emotional, Sensory, Cognitive, Language, and Environmental Variables

- Is the manner in which the therapist is conducting therapy commensurate with the child's cognitive ability?
- Are other concerns being considered? Evaluated?
- Are negative attitudes and feelings being monitored and addressed?
- As the child's development changes, does therapy reflect those changes?
- Is the therapy viewing the child as a whole?

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Consultation Request, E.L. age 8-2

Mrs. B, school speech-language pathologist, requested assistance regarding case E.L. because her stuttering was increasing in the educational environment. Her parents were also concerned and hoped the consultation would assist Mrs. B in helping E.L. at school.

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Step 1: Gathering Information

- Request of all records from school
- Detailed history of problem from parents- meeting with E.L. and parents
- Phone conference with Mrs. B: Problem Solving Triad

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Results

- Positive relationship between E.L., SLP, Teacher, Parents; excellent academics
- Present Level of Academic Achievement and Functional Performance: *"E.L. demonstrates atypical fluency pattern in her speech."*
- Adversely affects: *"E.L.'s stuttering problem impacts her fluency of speech when at school."*
- IEP GOAL: "…develop self monitoring skills to demonstrate the use of easy starts, pull-outs, light contacts, and relaxation within the school setting."

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- BENCHMARKS: *"E.L. will utilize easy talking during structured therapy tasks with 90% accuracy," E.L. will discuss feelings about stuttering in journal."*

- Parents report highly physically active, verbal temperament; twin sister, verbal competition; "run-on" stories, lack of eye contact; no other concerns; asking E. to use her "tools"

Step 2: Plan

Meet with E.L. & Parents:
Gather further information

- Language testing
- Perceptions & feelings
- Communication Discrepancies
- Short Sensory Profile

School Meeting: Review results & recommendations

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Results

PPVT-4 SS 125; EVT-2 SS 123

CELF-4: Core Language-114; Language Content-123; Expressive Language 112; Notable subtest Scores: Word Structure-11, Expressive Word Classes-10

CAT-R: 7; Short Sensory Profile: Definite Difference (SDA) multiple revisions within sentences; continuous input seeking; dramatic gestures-voices

Informal: Most stuttering increased rate, excited; in front of class, competition with twin, godmother, mom in car, teacher one on one, longer responses class discussion; did not like visual prompt for strategies in locker; felt easy starts, pull-out helped; did not want to talk that way with peers; teacher report frequent long involved stories at her desk, increased stuttering

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Test of Childhood Stuttering: Moderate Stuttering; Disfluency-Related Consequences Rating Scale completed by parent=0; loving and involved parents, structured schedule

Observations: bright, rapid rate, run-on sentences, high level of more typical disfluency

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Recommendations and Plan

<u>Current Academic Achievement and Functional Performance:</u>

"E.L. demonstrates a moderate stuttering problem characterized by multiple part word repetitions and prolongations of 2-4 seconds in duration, rapid speech rate, and a high percentage of Other Disfluency including revisions, interjections, and phrase repetitions. Contributing factors include language formulation discrepancy, high level of physical activity and intensity, articulation disorder; verbal competition with twin. Adverse impacts within the educational setting include difficulty talking at teacher's desk, during large group discussions and presentations, and when answering with more complex responses.

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2. Revision of IEP Long Term Goals to reflect *Communication Discrepancies;* Benchmarks:

- A. E.L. will demonstrate improved language formulation and fluency when sharing information and answering questions with classroom teacher and peers within classroom enviroment

-E.L. will utilize use of complete sentences, quiet pausing, phrasing of speech, and turn taking during structured therapy activities with 90% accuracy (self-rating scale; videofeedback; teacher rating)

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- -E.L. will orally produce a narrative story of 2-3 minutes and demonstrate reduction in %stuttered syllables during structured activities inside and outside therapy room (1-2 Severity Rating; measured by Daily Rating, Teacher Rating based on Contract Cards)

- -E.L. will answer questions during small group peer interactions within therapy setting while utilizing delayed response and fluency shaping strategies (videofeedback, therapist assessment)

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Knowing about School-Age Children who Stutter: Evidence for Treatment

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- **ASHA's IDEA Action Center**: www.asha.org/about/legislationadvocacy/Federal/idea/
- **Stuttering Foundation:** www.stutteringhelp.org **1-800-992-9392; resources, education, research**
- **friendswhostutter.org Friends: (support group for school-age children-teens and families)** conventions & workshops; support; volunteer opportunity for speech and language pathologists
- **westutter.org – National Stuttering Association** conventions & workshops, support; volunteer opportunity for speech-language pathologists
- **Stutteringhomepage.com** – resources and International On-Line conference-section available for school clinicians

www.campshoutout.org

- Overnight stuttering therapy camp for children who stutter ages 8-15; Leadership Training Program for ages 16-18
- Train hands-on with fluency specialists Kristin Chmela, June Campbell, and Kevin Eldridge; and apply Basic Principle Problem Solving

Cluttering Resources:

Planning & Executing Cluttering Treatment:

- On-Line Conference: www.stutteringhomepage.com

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Recent Research

Lidcombe Program with school-age children

(Harrison, Bruce, Shenker, & Koushik, 2010; and Koushik et al., 2009)

- n=11
- 6 to 10 years old (M_{age} = 9 years)
- Several challenges:

  -Time to do structured conversations

  -Parents having difficulty learning how to carrying out procedures

  -Maintenance of low levels of stuttering in natural speaking situations

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Knowing about School-Age Children who Stutter: Evidence for Treatment

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