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Vanderbilt SLP Journal Club: Precision Early Intervention: Matching Child Characteristics to Treatment

Stephen Camarata, PhD, CCC-SLP

Moderated by:
Amy Natho, MS, CCC-SLP, CEU Administrator, SpeechPathology.com

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Vanderbilt SLP Journal Club: Precision Early Intervention: Matching Child Characteristics to Treatment

Stephen Camarata, PhD CCC-SLP

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Affiliation and Disclosures

- Stephen Camarata: Vanderbilt University School of Medicine, Nashville TN
- Stephen Camarata has written two books: Late Talking Children: A Symptom or a Stage (MIT Press) and The Intuitive Parent (Penguin) and receives royalties from the sales of these books
- He does NOT have a direct financial interest in the contents of the presentation
- He does not have a conflict to disclose

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Outline

- Differential Diagnosis of Late Talking Children
- New Guidelines for ASD (DSM-V)
- Assigning Severity Levels
- Role of SLP in Diagnosis and Intervention
- Early Intervention-Evidence Based Practice
- Early Intervention-Approaches and Goals
- Early Intervention-Home and School

6

Learning Outcomes

After this course, participants will be able to:

- Identify the primary conditions and traits associated with late talking children.
- Describe how to adapt intervention based on a child's communication needs.
- Explain the importance of parent support and engaging family in treatment plans.

7

What is Early Intervention?

- Treating a pathological condition as soon as possible

8

DSM-5

- ASD requires communication disorders AND over reliance on routines.

9

How Does One Test Early Intervention?

- Drug Example for Meningitis
- Radiation Example for Cancer

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Failure!

- Diabetes Example; EI and Preserving Insulin Function

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What Are The Needed Elements?

- Accurate Differential Diagnosis
- Developmental Course of the Disease
- Data Based Estimate of Treatment Effect

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Recent Advances: Differential Diagnosis of Late Talking Toddlers

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Differential Diagnostic Process

- Language Related
- Conditions in Toddlers

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Delayed Onset of Language

- Nonclinical
- Speech Disorder
- Language Disorder
  - Expressive and Receptive
  - Social Communication Disorder
- Phonological Disorder
- Autism Spectrum Disorder
- Intellectual Disability

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Intellectual Disability

- Includes delayed onset of language and slow rates of language acquisition
- Global slow learning (significantly lower scores in verbal and nonverbal estimates of intelligence)

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Autism Spectrum Disorder

- Delayed onset of language
- Reduced MOTIVATION for social communication
- Repetitive behavior and restricted interests

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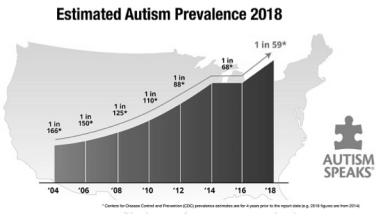
ASD and Late Talker

- Nearly all children with ASD talk late, but only a fraction of the children who talk late have ASD
- Estimate of ASD Prevalence: 1 in 59
- Estimate of late language emergence: between 10% and 20% (Rescorla, 1989; Rescorla & Alley, 2001; Zubrick, Taylor, Rice, & Slegers, 2007).
- Less than 1 in 8 probability that a child who talks late has ASD



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Social Communication Disorder

- "New" in DSM-5
- Long been known as "pragmatic disorder"
- Child is motivated to communicate, has some knowledge of language forms, but has difficulty with conversation and social skills

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Language Disorders

- Demonstrate language impairment as single developmental disability: no alternative explanations for the child's failure to learn language (Leonard, 1998)
- Conventional criteria (Leonard, 1998):
  - language fall below 1.25 SD from the mean
  - a performance IQ of at least 85
  - normal hearing, negative recent history of otitis media
  - no evidence of neurological dysfunction
  - intact oral-motor structure and function
  - grossly normal patterns of social impairment
- ~7% based on Tomblin et al, 1997 large scale study

20

Role of SLP is crucial!

- Phonetics and phonology
- Syntax
- Morphosyntax
- Pragmatics (ADOS training example)
- Example: Echolalia vs. Imitation

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Differential Diagnosis vs. Eligibility/Confirmatory

- Goal of assessment should be to determine what condition is evident.
- Should NOT be to confirm a particular condition (i.e., ASD)

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Key Differential Markers

- Nonverbal IQ (Verbal IQ might be low, even when reasoning ability is average or above average)
- Speech (Phoneme Inventory)
- Nonverbal social skills / prelinguistic skills
- Repetitive behavioral and restricted interests
- For ASD or ID, the child will still show symptoms even if they learn to speak and develop typical language ability

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Eligibility vs Differential Diagnosis

- Clinicians Establish Eligibility for Early Intervention and Preschool Special Education Services
- This is based on state generated eligibility criteria
- Differential Diagnosis is completed to identify primary and secondary (comorbid) conditions (DSM and/or ICD)
- It is not uncommon to be eligible for ASD services while subsequently having ASD ruled out in a developmental evaluation
- This is very confusing for parents!

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Example for Eligibility: Nebraska

- "Autism -To qualify of special education services in the category of autism the child must have a developmental disability which significantly affects verbal and nonverbal communication and social interaction, is generally evident before age three, and that adversely affects a child's educational performance. "
- There may be an absence of spoken language, without an attempt to compensate by using gestures or other conventional forms of communication, such as eye contact, joint attention or facial expressions. This may include little response to language, echolalia, mechanical or stilted speech, pronoun reversals, and difficulty expressing emotions. Even when verbal language is age-appropriate, oddities may be observed in the communicative process and social use of language and ability to express emotions. • The child may demonstrate difficulties in initiating, sustaining, and/or taking turns in conversations.

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These Eligibility Criteria Could Arise from other Late Talking Features

Questioning Conventional Wisdom

Early Diagnosis: Boon or Bane?

Revolutionary Common Sense by Kathie Snow, www.disabilityisnatural.com

The early diagnosis of children is so widely practiced that we seldom question its validity or helpfulness. The theory behind early diagnosis makes sense, on the surface: the earlier the diagnosis, the earlier the child can get help and services, and the earlier the disability/condition can be remediated or "fixed." These are considered the benefits of early diagnosis, but there is also potential harm in early diagnosis.

In 2003, while presenting at an Early Intervention (EI)/Early Childhood Education (ECE) conference that included parents and professionals, I

It was interesting to learn that this happens to "other" parents. At the time, I thought it was unique to parents of children with disabilities, regardless of the type or severity of the condition, because that's what I was familiar with, based on my own personal experiences, as well as the experiences of hundreds of parents I've met over the years. Interestingly, the majority of children with disabilities, in general, *do not* have life-threatening illness, nor do they have numerous and lengthy hospital stays. Still, the two groups of parents share this Altered Parenting phenomena.

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Practical Differences: Why it Matters

- Treatment is motivated by classification (even when a differential diagnosis ahs not been made).
- ASD EI and preschool programs are designed to address autism
- But these may not be appropriate for late talkers who do not have autism
- Treatment should arise from a differential diagnosis

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Thinking about intervention….

- Should focus on helping a late talker learn to talk!
- Should consider each child's individual profile
- Level of social motivation is crucial
- Individual differences/strengths should be considered

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Big News On Autism This Year!

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- "About 1 in 59 children has been identified with an autism spectrum disorder (ASD) according to estimates from CDC's Autism and Developmental Disabilities Monitoring (ADDM) Network."
- "ASDs are almost 5 times more common among boys than among girls."
- http://www.cdc.gov/ncbddd/autism/research.html

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Important Notes

- These are 2010 data on 8 year olds
- The 2008 recommendation for Universal Screening did not go into effect until 2012
- The 2020 data will begin to include those data
- Prediction: Huge increase coming!

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Does this Mean that 1 in 59 Children will Grow up as "Rainman?"

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Prediction

- ASD rate will continue to rise
- Because nearly all toddlers display some symptoms of ASD and Late Talking by itself is the primary marker in toddlers….

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The "rate" of ASD will *at least* double by 2020

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The Contribution of Diagnostic Substitution to the Growing Administrative Prevalence of Autism in US Special Education

Paul T. Shattuck

Pediatrics 2006;117;1028

DOI: 10.1542/peds.2005-1516

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- "Prevalence findings from special education data do not support the claim of an autism epidemic because the administrative prevalence figures for most states are well below epidemiological estimates. The growing administrative prevalence of autism from 1994 to 2003 was associated with corresponding declines in the usage of other diagnostic categories." p. 1028

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For Early Identification, Only Classic Autism is Sufficiently Accurate to Test EI!

- But, this group is more severe and slow to learn

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What About "Developmental Course" of the Disease?

38

What about two year olds with ASD?

- Unstable diagnosis
- Variable Developmental Course

39

But if they get better, isn't that evidence that EI works?

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Bottom Line

- Autism and Autism Spectrum are on the rise!
- Rate is likely to "decrease" under new criteria, but that won't mean society is "curing" ASD
- ASD that is not "classic autism" has a relatively high recovery rate, in some cases WITHOUT intervention. Autism does not.

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For Early Intervention

- Untreated recovery creates culture of "superstitious" cures
- If a 24 month old isn't using words, but has typical comprehension and no speech disorders
- The untreated "recovery" rate ranges from 50% to 70%
- Incorrect Differential Diagnosis leads to Ineffective or even Harmful Treatment

42

Kanner

He opposed "habit to dilute the original concept of infantile autism by diagnosing it in many disparate conditions which show one or another isolated symptom" of autism. Kanner (1965)

43

Kanner

"Almost overnight, the country seemed to be populated by a multitude of autistic children," he said.

Kanner, L. (1965). Infantile Autism and the Schizophrenias. Behavioral Science, Vol. 10, p. 413

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The Lancet, June 2010

- "At the same time, today's study exemplifies the complexity of attempting to detect change in samples of young children with such a heterogeneous condition. There are very few positive published trials in autism, for behavioural interventions, traditional pharmaco-therapy, or complementary/alternative therapies."

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What We Know

- Children will learn under a variety of behavioral intervention conditions

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What We Don't Know

- Whether applying these behavioral techniques is better if done early
- Is two better than three better than four and so on?

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Measures and Assessments

- ADOS
- STAT
- M-CHAT
- Qualitative Markers (e.g., joint attention)
- Big National Push to Screen for Autism by the age of 2

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AUTISM SPECTRUM DISORDER

- Qualitative Impairment in Social Interaction
- Qualitative Impairment in Communication
- Restrictive/Repetitive and Stereotyped Behavior
- Delays or Abnormal Functioning (onset prior to 3) in: Social Interaction, Language, Symbolic Play

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Note: Social Communication Disorder

- Lack of Verbal Social Interaction
- Lack of Verbal Communication
- Use of Routines to Compensate for Reduced Comprehension
- Will often Receive "ASD" score on ADOS and CARS-2

50

Nonclinical Late Talking

- Language Growth without Intervention (Whitehurst et al. 1992; Paul, 1996; Law, 2002; Resorla and Dale, 2010)
- Early Strength in Analytical Abilities
- Dominance of Spatial-Analytical Skills
- Nonverbal Cognitive Abilities in typical range
- No Other Conditions (e.g. phonological disorder, receptive language disorder)

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Vaccines, Autism and Treatment

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CNN January 5, 2011

- Retracted autism study an 'elaborate fraud,' British journal finds

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A Systematic Review of Early Intensive Intervention for Autism Spectrum Disorders

Zachary Warren, Melissa L. McPheeters, Nila Sathe, Jennifer H. Foss-Feig, Allison Glasser and Jeremy Veenstra-VanderWeele

Pediatrics 2011;127;e1303; originally published online April 4, 2011;
DOI: 10.1542/peds.2011-0426

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"The strength of the evidence overall ranged from insufficient to low."

55

How Can That Be?
Everyone *KNOWS* Early Intervention works!

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Into this void: Autism "Treatments"

- Example: Secretin
- Example: Defeat Autism Now (DAN)
- Example: Facilitated Communication

57

Secretin

- Digestive Hormone
- Promoted as "Cure" for Autism
- Clinical Trial Discontinued Early

58

DAN

- Baker, S., Pangborn, J., Baker, S. M. (2005). *Autism: Have We Done Everything We Can for This Child?: Effective Biomedical Treatments*, 2nd Edition. Autism Research Institute

59

DAN (Defeat Autism Now) Physicians

- Chelation as "detox" for mercury in vaccines (thimerisol removed from vaccines more than decade ago)
- FDA: "Federal regulators are warning eight companies to stop selling so called 'chelation' products that claim to treat a range of disorders from autism to Alzheimer's disease." http://www.fda.gov/downloads/ForConsumers/ConsumerUpdates/UCM229436.pdf

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FDA Consumer Health Information
www.fda.gov/consumer

FDA Warns Marketers of Unapproved 'Chelation' Drugs

Federal regulators are warning eight companies to stop selling so-called 'chelation' products that claim to treat a range of disorders from autism to Alzheimer's disease.

The Food and Drug Administration (FDA) says the companies have not proven their products are safe and effective in treating autism spectrum disorder, cardiovascular disease, macular degeneration, Parkinson's disease or any other serious illness. Some of the companies also claim their products can detect the presence of heavy metals in the body, which they say is justify the need for chelation therapy.

FDA compliance expert Deborah Autor says the companies are preying on people made vulnerable because of serious illness. "These products are dangerously misleading because they are targeted to patients with serious conditions and limited treatment options," says Autor.

In letters dated Oct. 14, FDA warns the companies that they are facing possible legal action if they continue to make unsubstantiated claims. The firms that received the letters (along with the chelation products they market) are:

- WorldHealth Products, LLC: Detoxamin Suppositories, Detoxamin Capsules, and the Metal Detector test kit
- Hormonal Health, LLC and WorldHealth Products, LLC: Kelatox Suppositories, and the METALDETECTOR Instant Toxic Metals Test
- Enothetorious, LLC: Kids Chelat Heavy Metal Chelator, Bio-Chelat Heavy Metal Chelator, Behavior Balance DAY, Liquid, AlkaLife AlkaBase Drops, Nutrilife Grapefruit Seed Extract, Natur-Leaf, Bio-Chelat Detoxifying Herbal Baths, EBN Detoxifying Bentonite Clay, and the Heavy Metal Screen Test
- Amazon Nutraceutix/Amazon Laboratories: PCA-Rx, PCIn, AFX, AD-Rx, AN-Rx, Anaerow, AO-Rx, Bio-Gaard, HMD CF-Rx, CoOxoE, Dermatotropin, Endotropin, GTF-Rx, Hi-Rx, Kess-Plex, Natural Panacea, SG-Rx, SX-Rx, OR-Rx, Oxy-Charge, PN-Rx, Ultra-N, Ultra Pure Velnetho, and the Heavy Metal Screening Test
- Cardio Renew, Inc: CardioRenew and Vessel Renew
- Amen Health Institute, LLC: Advanced Formula EDTA Oral Chelation
- Longevity Plus Beyond Chelation Improved, EndoKrease, Viral Defense, Wobenzym-N
- Dr. Rhonda Henry: Cardio Chelate [H-870]

FDA says consumers should avoid non-prescription products offered for chelation or detoxification. FDA-approved chelating agents are available by prescription and are approved for use in specific indications such as the treatment of lead poisoning and iron overload. The agency says even the prescription medications carry significant risks, and they should only be used with medical supervision.

The products come in a number of forms, including sprays, suppositories, capsules, liquid drops, and clay baths.

Over the past few years there's been an increase in the number of companies, chelation products that claim to cleanse the body of toxic chemicals and heavy metals. Although some of the products are marketed on the Internet as dietary supplements, by law they're unapproved drugs and devices because they claim to treat, mitigate, prevent, or diagnose disease. FDA

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1 / FDA Consumer Health Information / U.S. Food and Drug Administration OCTOBER 2005

61

Facilitated Communication Rapid Prompting

- Augmentative Communication with Facilitator
- Hailed as "Breakthrough"
- False Charges of Abuse
- Scientific Studies Showed Hoax/Facilitator Source of Message

62

Still Practiced Autism National Committee

- The benefit of FCT in leading to FC as an acceptable and valid form of AAC has been established…
- *www.autcom.org/articles/PPFC.pdf*

63

Interactive Metronome

- Marketed as a treatment for autism
- Focuses on "tapping" and "rhythm" as treatment
- Use beats and hand or foot sensor
- Does not address core autism symptoms

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•http://www.interactivemetronome.com/

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Hyperbaric Therapy

- Hyperbaric Chamber
- Infuse oxygen into neural system
- Claim: Increases “myelin”
- No Evidence

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Sensory Integration Therapy

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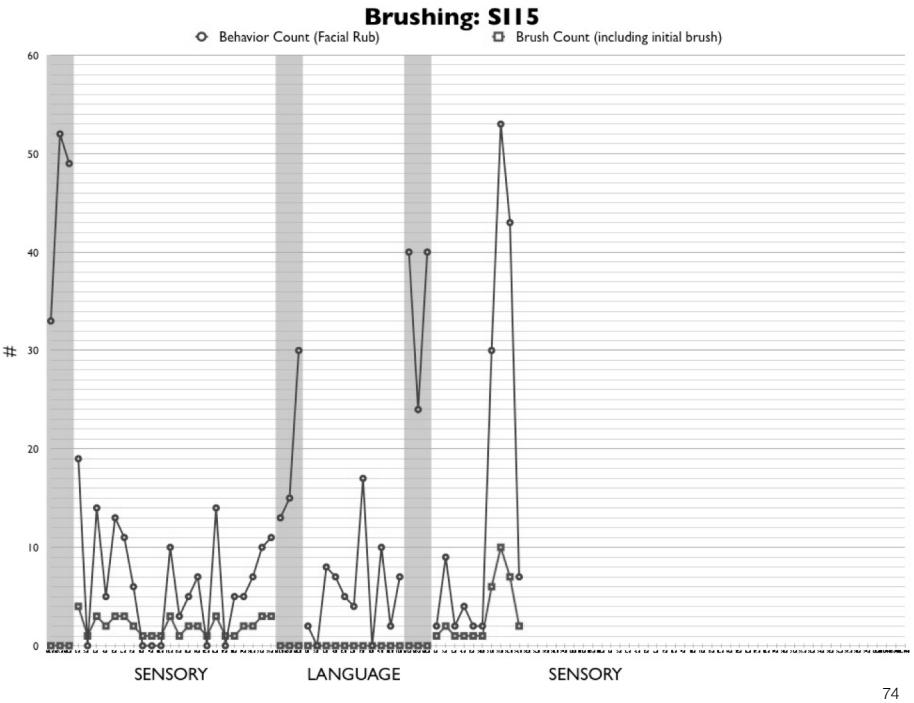
Potential Confounds

- Play Based Interventions Include Many "ingredients"
- Example: Verbal Transactions
- Hundreds of Studies with Diverse Disabilities

73



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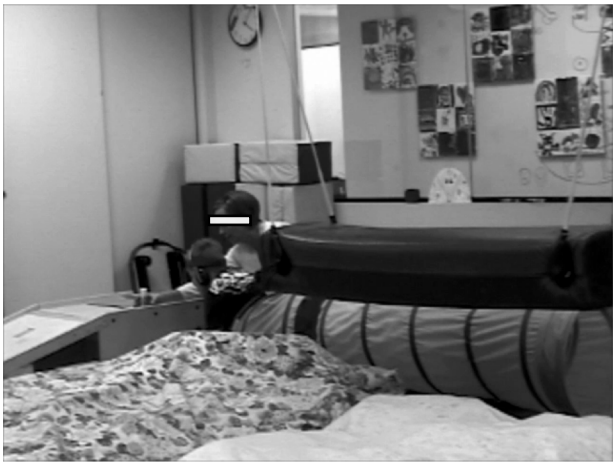

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Sensory Integration Therapies for Children With Developmental and Behavioral Disorders

SECTION ON COMPLEMENTARY AND INTEGRATIVE MEDICINE and COUNCIL ON CHILDREN WITH DISABILITIES

Pediatrics; originally published online May 28, 2012;
DOI: 10.1542/peds.2012-0876

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"parents should be informed that the amount of research regarding the effectiveness of sensory integration therapy is ***limited and inconclusive***. Important roles for pediatricians and other clinicians may include discussing these limitations with parents, talking with families about a trial period of sensory integration therapy, and teaching families how to evaluate the effectiveness of a therapy. Pediatrics 2012;129:1186–1189

77

What Does Work? Matching Children to Treatments

No one treatment will apply to all children

78

But…there are literally hundreds of studies showing behavioral intervention is effective

- Children learn what you teach!

79

Pivotal Response Training

- Koegel and Koegel
- Approach rather than didactic "package"
- See Koegel, Koegel & Camarata, JADD 2011

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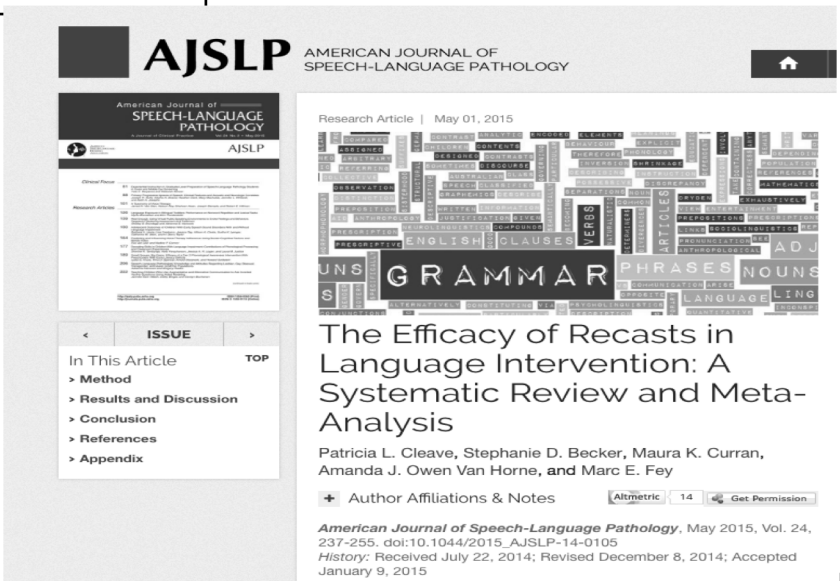

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Results

"Study quality and thus strength of evidence varied substantially. Nevertheless, across all phases, the vast majority of studies provided support for the use of recasts. Meta-analyses found average effect sizes of .96 for proximal measures and .76 for distal measures, reflecting a positive benefit of about 0.75 to 1.00 standard deviation."

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Treatment Process: What Should be Taught for a Child to Access Transactions?

What Level of Support is Needed for a Child to Learn?

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Figure 2: Schematic of Intervention Plan

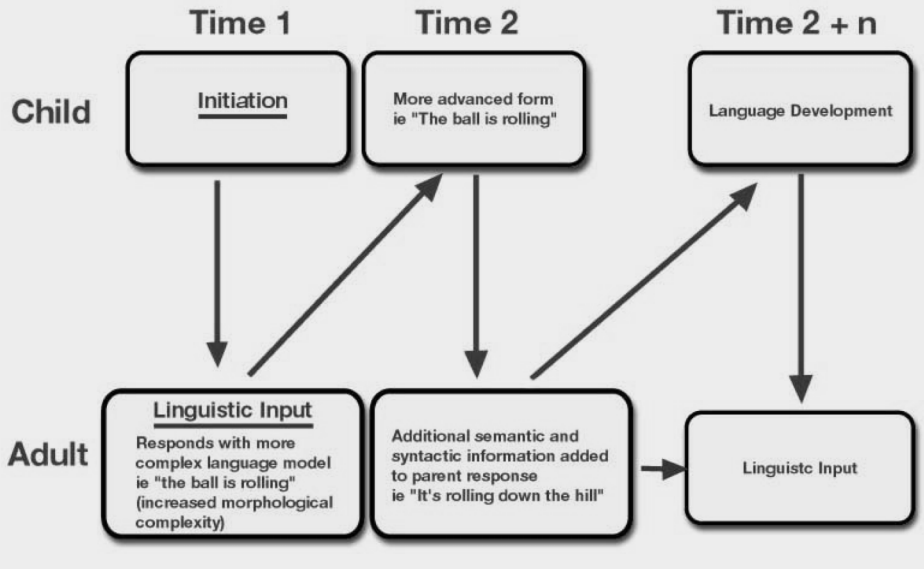

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Figure 2: Schematic of Intervention Plan

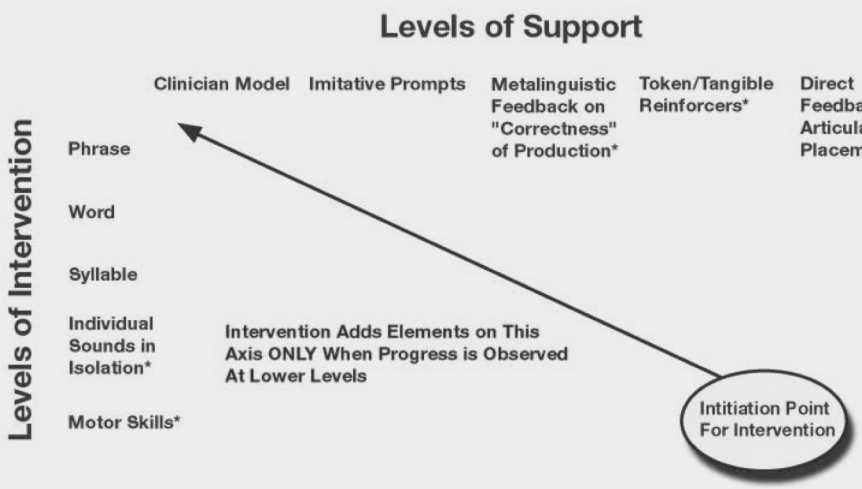

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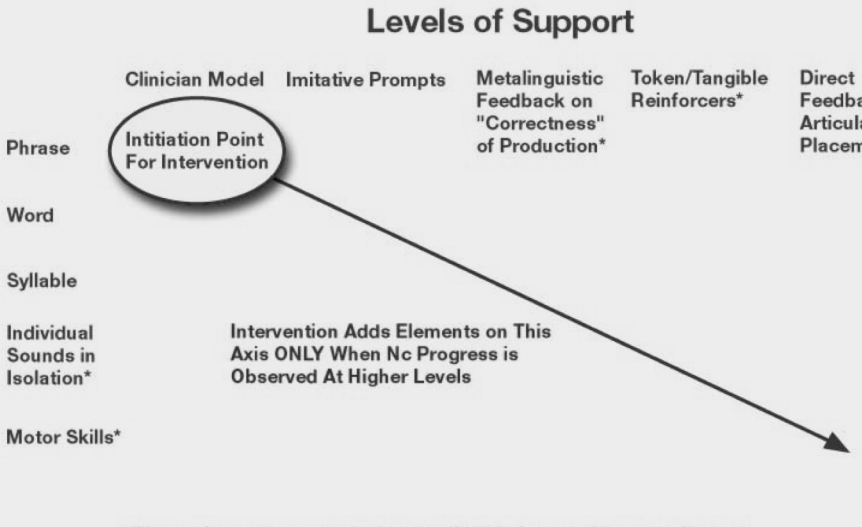
Figure 1: Schematic of Intervention Plan



*These elements are not included in initial phases of intervention and represent a transition to motor training when a lack of progress is observed in the naturalistic intervention

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Diagnostic Process: What is Interfering with Transactions?

87

Potential Breakdowns

- Attention
- Memory
- Rate of Learning
- Social Interaction
- Hyperactivity
- Motor Skills
- Sensory Skills (e.g. Hearing)

88

Research Goal: Discovering Which Treatments Are Needed to Gain Access to Learning Transactions

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What We Know

- Talking Late, which is a primary symptom in ASD has at least a 60% spontaneous recovery rate
- This is also an entrée into a pantheon of controversial diagnoses (CAPD, CAS, SID [SPD])
- Classic Autism has a low spontaneous recovery rate

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What We Know

- Behavioral Intervention Works!
- Hundreds of studies showing that a pantheon of behaviors can be taught
- Includes speech, language, receptive language, social skills, behavioral management, peer interactions etc.

91

What We Need To Know

- What Treatments are best for an individual child (precision medicine model)

92

What We Really Really Need to Know About EI

- Are *long term* outcomes behavioral or drug treatments are delivered at age 2 *as compared to* age 3, age 4 and so on.
- This will require *fair* intervention studies that are not confirmatory

93

Why is Receptive Language Important?

94

Rationale

- Gillum & Camarata review indicated that Auditory Comprehension is one of the most stable deficits in Autism and ASD.

Gillum, H., & Camarata, S. (2004). Importance of treatment efficacy research on language comprehension in MR/DD research. Mental Retardation and Developmental Disabilities Research Reviews, 10, 201-207.

Auditory Comprehension is one of the strongest predictors of long term outcomes in Preschoolers with disabilities. (Moricke et al 2010)

95

Implications

- Social Skills
- Overselectivity (Camarata et al 2009)
- Behavior Regulation
- Impact on "Stores of Acquired Knowledge"
- Lack of Intervention Studies (Focus on Expressive Skills with assumption of Cross-Modal Generalization)

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A Comparison of Naturalistic and Analog Treatment Effects in Children with Expressive Language Disorder and Poor Preintervention Imitation Skills

Heather Gillum
Stephen Camarata
Vanderbilt University Medical Center
Keith E. Nelson
Penn State University
Mary N. Camarata
Vanderbilt University Medical Center

Abstract: The participants in this study were 4 children diagnosed with Expressive Language Disorder who displayed poor imitation skills, with scores significantly below typical levels on the Sentence Imitation subtest of the *Test of Language Development-2: Primary* (Newcomer & Hammill, 1988). The purpose of this study was to compare the treatment effects of both naturalistic (conversational recast) treatment and analog treatment in these participants. The results indicate that children with poor preintervention imitation skills required higher numbers of analog presentations to establish production of the language structures than was observed under the naturalistic treatment. Clinical implications of these results are discussed.

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- "The results indicate that children with poor preintervention imitation skills required higher numbers of analog presentations to establish production of the language structures than was observed under the naturalistic treatment."
- Children who resist imitation do not do well in interventions that rely on prompting
- Prompting is the primary "ingredient" in ABA-Discrete Trials (Lovaas) and should be avoided in children who are reluctant to imitate on demand

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Parent Training

- Parents deliver dozens (sometimes hundreds) of teaching examples every day
- This can be harnessed!
- Every Parent should be invited to participate in intervention plan
- Not all parents will be able to (and that is OK) but always offer

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Evaluate Priorities

- Set realistic goals
- Start with small steps that can build on each other

- First
  - target behaviors that are dangerous
  - target skills that would help to improve situations across several behavioral scenarios

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Features Across Recommendations

Clear—understood by family/caregivers

Consistent—family/school/caregivers are on the same page with the interventions, expectations, and rewards

Feasible—strategies need to be practical and available across settings and team(s)

Steady—new strategies/interventions should continue for at least 3-4 weeks

Continuity—keep strategies in place even when the behavior improves

Remember Extinction Bursts **Keep data if possible**

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Where to start?

Consider the function of the behavior

- what purpose/function does the behavior serve?

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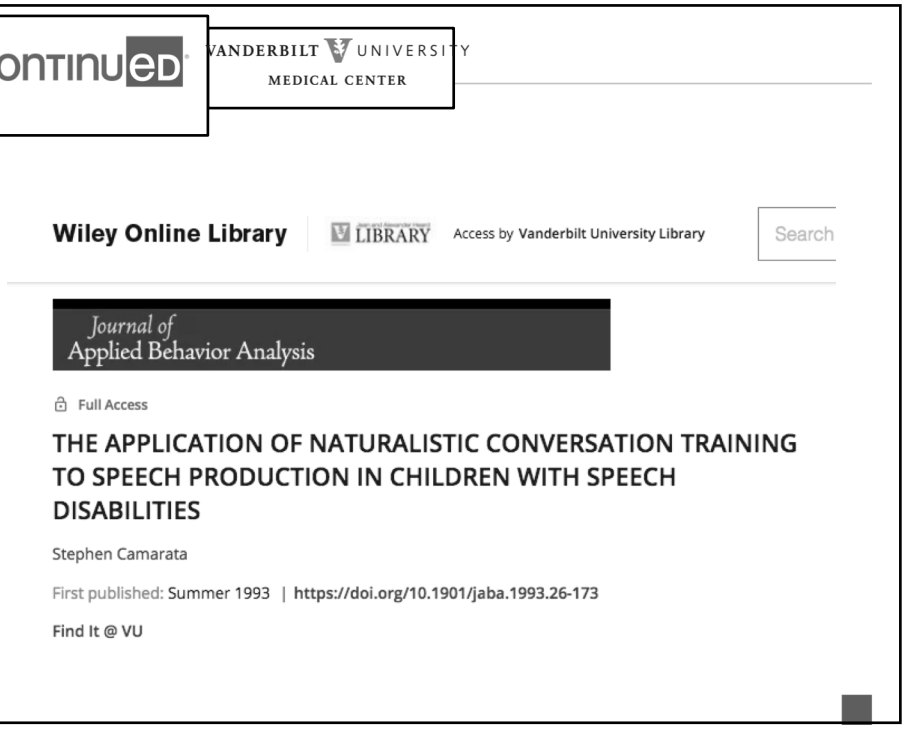
Important Intervention Prinicple

- Children will learn what you teach….
- If you want then to learn words…teach vocabulary
- If you want them to learn more accurate speech/phonology..teach speech



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Journal of Applied Behavior Analysis

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THE APPLICATION OF NATURALISTIC CONVERSATION TRAINING TO SPEECH PRODUCTION IN CHILDREN WITH SPEECH DISABILITIES

Stephen Camarata

First published: Summer 1993 | https://doi.org/10.1901/jaba.1993.26-173

Find It @ VU

Results

"The results for speech production training are very similar to the reports of other types of communication behavior: naturalistic conversation training is likely to be very effective and results in production during spontaneous conversation. All speech sounds required and produced in conversational context and in generalized settings."

Functional Behavior Analysis

Functional behavior analysis--a structured, systematic, and objective method for determining the communicative function underlying a maladaptive behavior for intervention planning purposes

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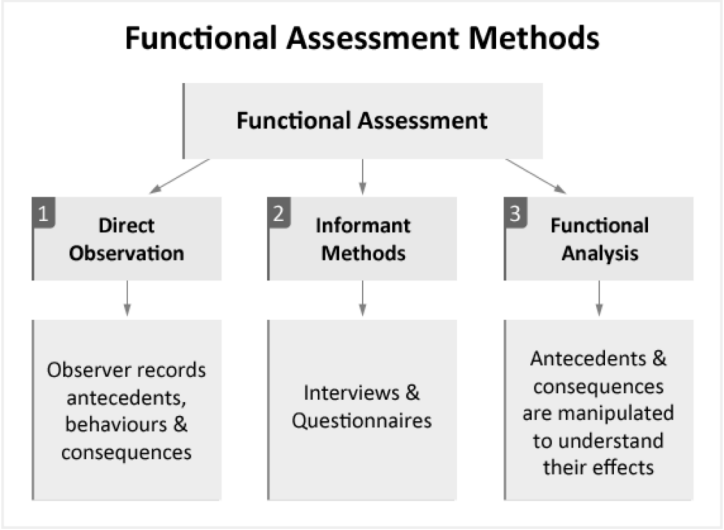
Functional Assessment Methods



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Tenants of FBA

- describe the interfering or problem behavior
- identify antecedent and consequent events
- consider the function of the behavior
- design intervention to replace behavior with a more adaptive behavior serving a similar function
- often helpful with considering function of
  - self-injury
  - aggression towards others
  - elopement
  - destructive behaviors
- **data collection** is an important part of the FBA

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Questions About Behavioral Function

- 25-item rating scale, developed to identify the function(s) of maladaptive behavior in individuals with developmental disabilities
- 5 functions:
  - social attention
  - escape
  - nonsocial reinforcement
  - physical discomfort
  - tangible reinforcement

The Questions About Behavioral Function (QABF) Matson & Vollmer, 1995

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When Communication is the Function of the Behavior

Teach a more functional form of communication

Replace inappropriate behavior or subtle communicative acts with more appropriate and effective communicative behaviors

Communication Breakdown:

- teach a more appropriate communication skill
  - e.g., pointing to or giving a cue card, vocalization, sign
- use differential reinforcement of taught behavior
- extinction

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Positive Strategies for Supporting Behavior Improvement

- Espouse a mindset that is preventative rather than in response to behavior
- Set expectations by saying what you want to see instead of what not to do

"I want to see walking feet in the store" instead of "No running in the store"

- Praise and encouragement should be frequent
- Praise should be specific, not generic

"Great job putting away your clothes" instead of "Good job"

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Positive Strategies (continued)

- Validate emotions and/or give language to teach self expression

"I know you wanted to walk to the park and now you are feeling angry that it is raining."

- Ignore low level behaviors
  - whining, fidgeting, noises
- Differentiate attention toward positive or prosocial behaviors
- Modeling—Demonstrate desired behavior

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Positive Strategies (continued)

- Visual aids, photographs or video models are great ways to teach/show expected behavior
- Provide opportunities for success
- Schedule breaks throughout the day for preferred activities
- Allow individual to request a break when needed
  - for non-verbal individuals make a visual break card available

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Positive Strategies (continued)

- Provide opportunities for choice making (available choices can be controlled)
- Establish a reward system consistent with the individual's level of understanding
- Allow time to do their preference
  - repetitive behavior, discussion of restricted interest, playing/looking at restricted interests

-Does this need to be scheduled?

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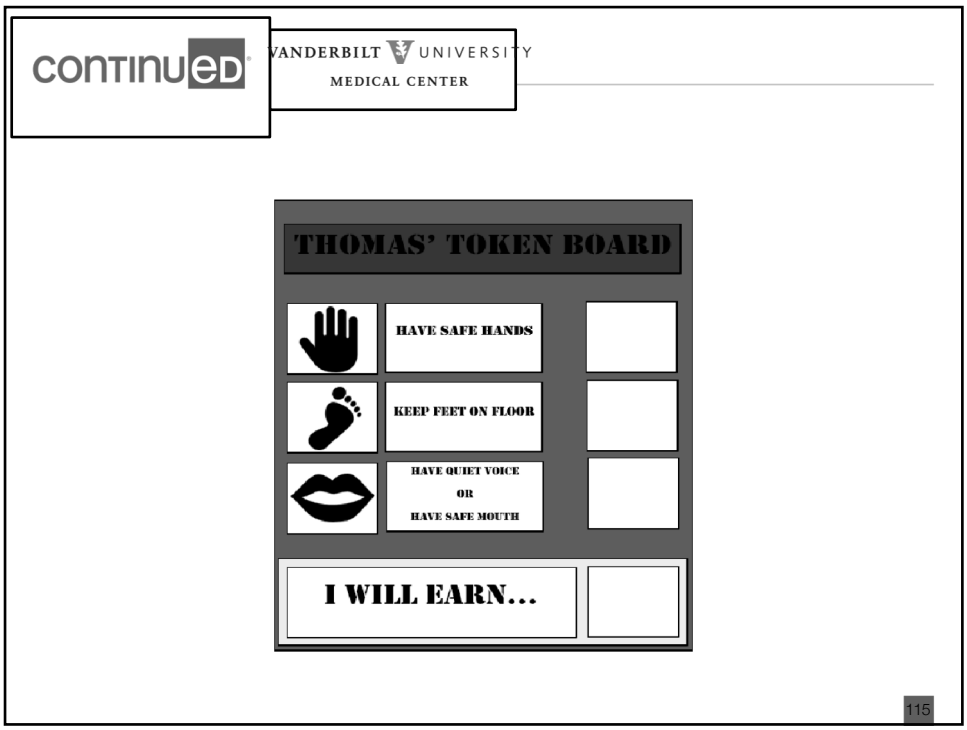
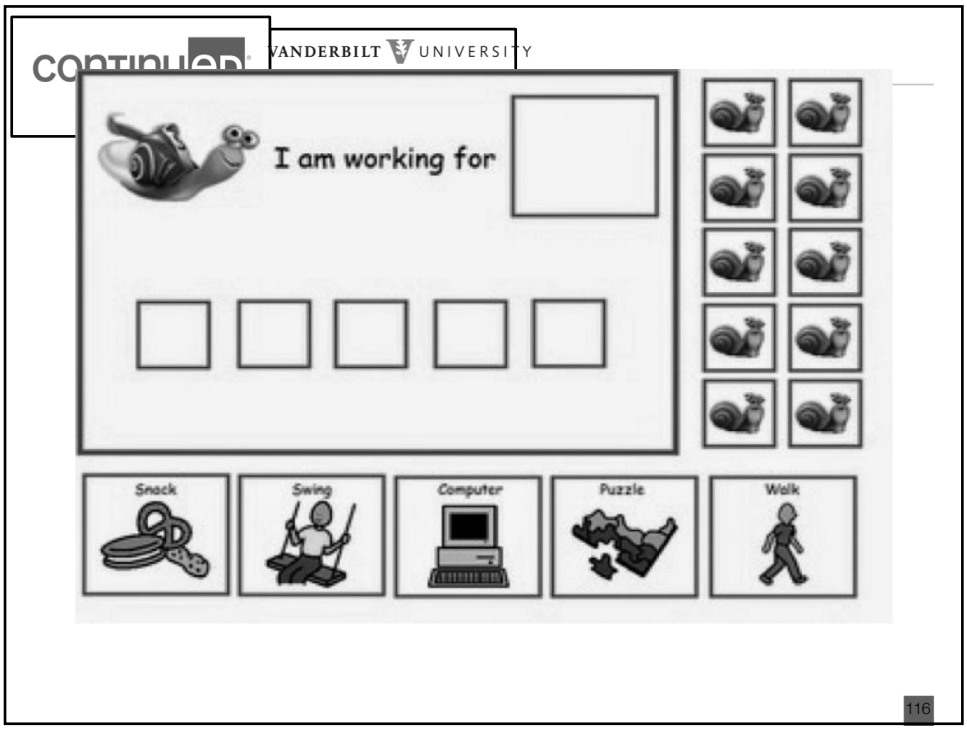
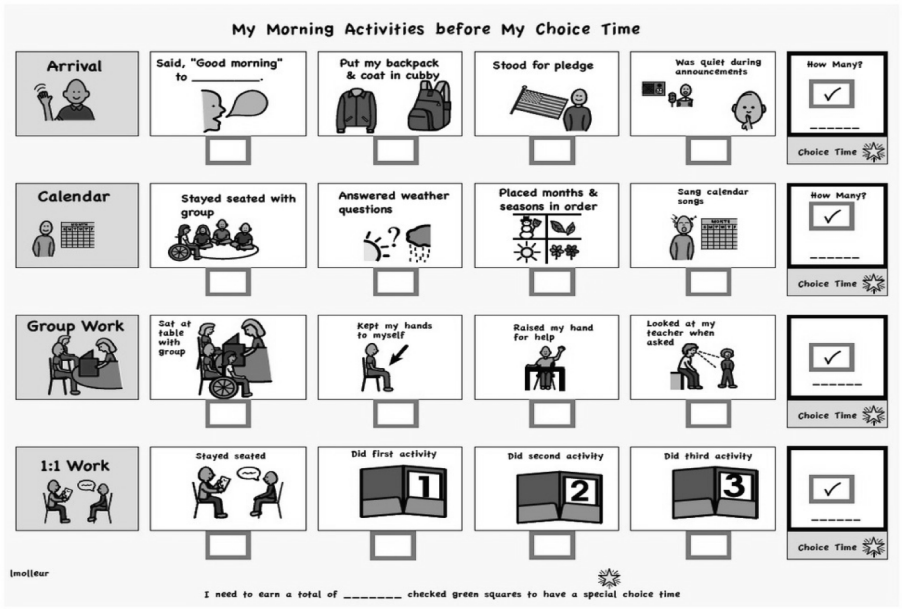
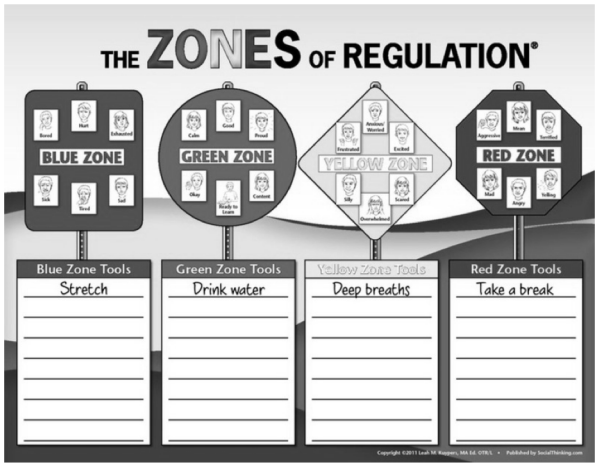

THOMAS' TOKEN BOARD
HAVE SAFE HANDS
KEEP FEET ON FLOOR
HAVE QUIET VOICE
OR
HAVE SAFE MOUTH
I WILL EARN...
115


I am working for
Snack
Swing
Computer
Puzzle
Walk
116


My Morning Activities before My Choice Time
Arrival
Said, "Good morning" to _____.
Put my backpack & coat in cubby
Stood for pledge
Was quiet during announcements
How Many?
Choice Time
Calendar
Stayed seated with group
Answered weather questions
Placed months & seasons in order
Sang calendar songs
How Many?
Choice Time
Group Work
Sat at table with group
Kept my hands to myself
Raised my hand for help
Looked at my teacher when asked
Choice Time
1:1 Work
Stayed seated
Did first activity
1
Did second activity
2
Did third activity
3
Choice Time
Imolleur
I need to earn a total of _____ checked green squares to have a special choice time


THE ZONES OF REGULATION®
BLUE ZONE
GREEN ZONE
YELLOW ZONE
RED ZONE
Blue Zone Tools
Stretch
Green Zone Tools
Drink water
Yellow Zone Tools
Deep breaths
Red Zone Tools
Take a break

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Response Interruption/Redirection

- Use of a prompt, comment, or distractors when a behavior is occurring to divert attention away from the behavior
- Most often used to address behaviors that are repetitive, stereotypical, and/or self-injurious
  - typically used for behaviors that are not maintained by attention or escape
  - such behaviors are often maintained by sensory reinforcement
  - Interrupt behavior and direct to more appropriate, alternative behavior

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Social Narratives/Social Stories

- Scripts used to explain the "rules" of social situations by highlighting relevant cues and defining appropriate responses
- Can be individualized
- Usually written in 1st person
- Can include visual aids
- Use of these stories also helps consider various social situations with peers
- Can be created to relate to a variety of social situations and contexts, such as making introductions, getting and giving directions, or asking for help

www.thegraycenter.org/socialstories.cfm
www.rsaffran.tripod.com/social.html
www.socialstories.com/
www.autismspeaks.org/family-services/personalized-stories

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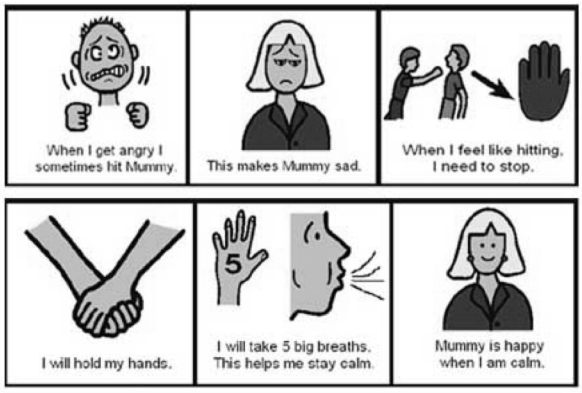

andrew4autism.com

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livingwellwithautism.com

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I like to run. It is fun to go fast.

It's okay to run when I am playing outside.

I can run when I am on the playground.

Sometimes I feel like running, but it is dangerous to run when I am inside.

Running inside could hurt me or other people. When people are inside, they walk.

Walking inside is safe.

I will try to walk inside and only run when I am outside on the playground.

My teachers and parents like it when I remember to walk inside.

http://challengingbehavior.fmhi.usf.edu

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Visual Supports

- Visual cues about one's activity, routine, or expectation
- Can be quite varied in form and function
- Used to
  - organize the environment
  - establish expectations around activities
    - schedules
    - work systems
    - instructions
    - video modeling
  - provides reminders
    - timers
    - appropriate behavior
    - activities to chose from
    - when something is complete

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Types of visual structure

- Photographs
- Drawings
- Words
- Objects
- Physical structure
- Work Systems
- Visual Timers
- Checklists
- Learning Strips
- Schedules
- Graphic organizers
- Organizational systems
- Scripts

www.do2learn.com

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Learning Scripts

- Detailed script for washing hands

www.do2learn.com

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Consider Structuring the Environment

- Visuals
  - Schedules (use pictures if needed)
  - calendars
  - checklists
  - consistent routines
  - visual timers
  - calm down space (sensory items, calming strips)
  - consider troublesome distractions or triggers in the environment (alarms, outside noise, flickering lights)

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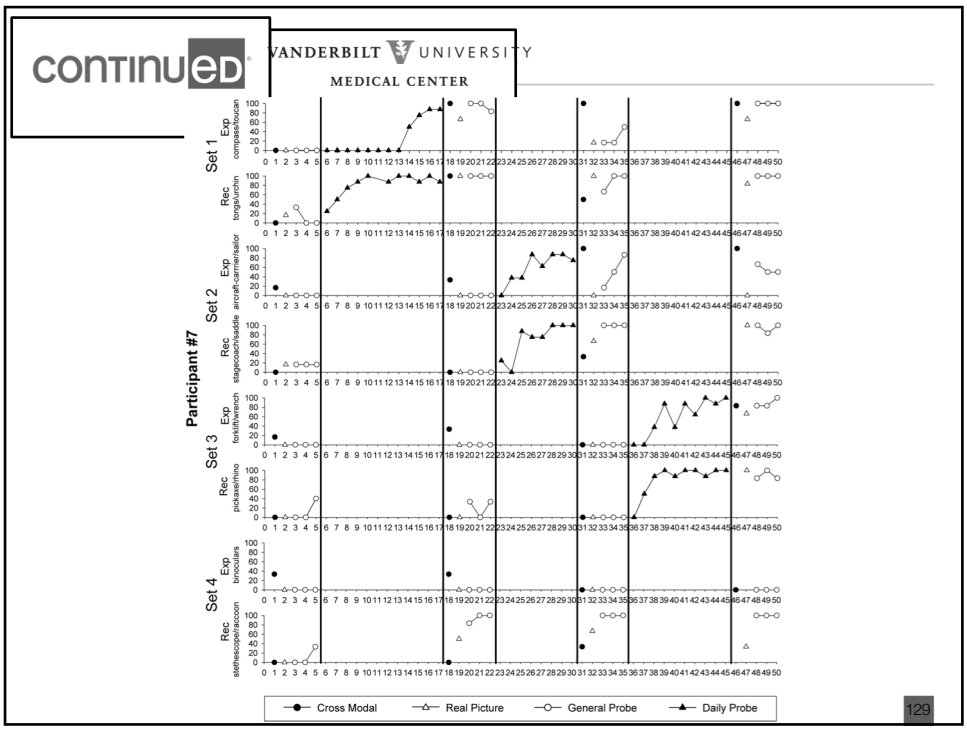
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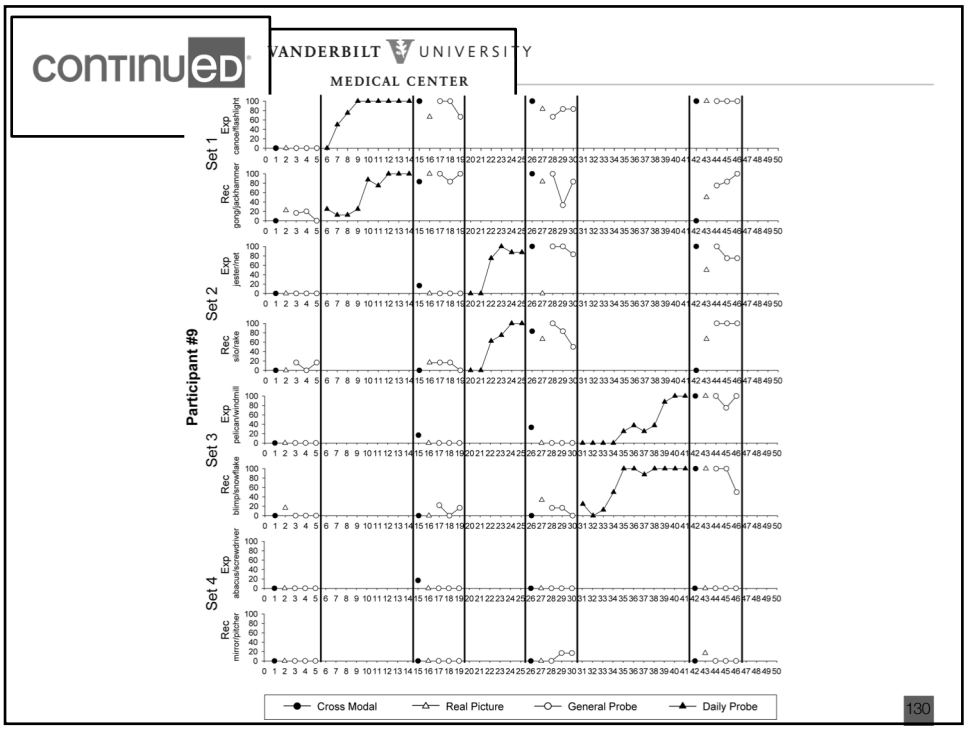
VANDERBILT UNIVERSITY MEDICAL CENTER
Participant #7
Set 1
Exp compass/toucan
Rec tongs/urchin
Set 2
Exp aircraft-carrier/sailor
Rec stagecoach/saddle
Set 3
Exp fork/flyswatch
Rec pickaxe/rhino
Set 4
Exp binoculars
Rec stethescope/raccoon
Cross Modal
Real Picture
General Probe
Daily Probe
129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Participant #9
Set 1
Exp canoe/flashlight
Rec gong/jack-hammer
Set 2
Exp jester/net
Rec sitar/rake
Set 3
Exp pelican/windmill
Rec blimp/snowflake
Set 4
Exp abacus/screwdriver
Rec mirror/pitcher
Cross Modal
Real Picture
General Probe
Daily Probe
130

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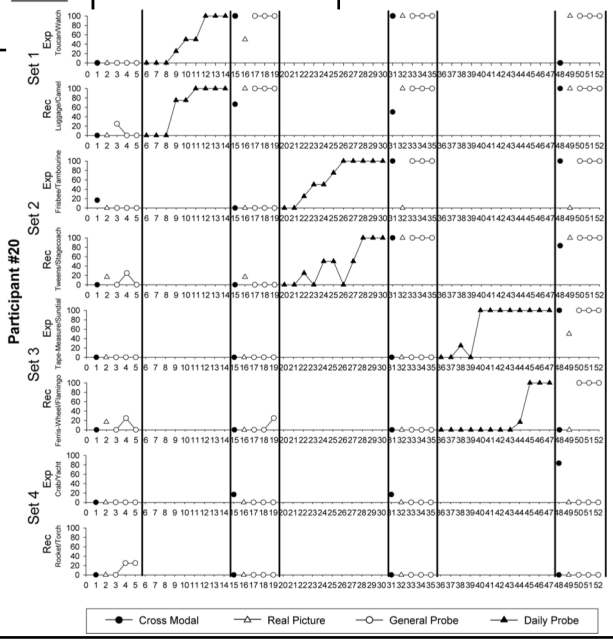

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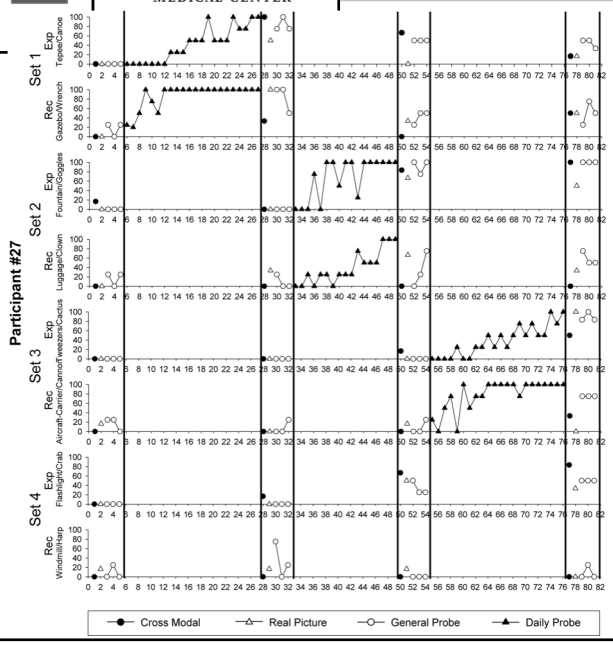

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