

An Introduction to the National Autism Conference and Applied Behavior Analysis

Monday July 29, 2013
National Autism Conference
Pennsylvania State University
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Pennsylvania Training and
Technical Assistance Network



Pennsylvania Training and Technical Assistance Network

PaTTAN's Mission

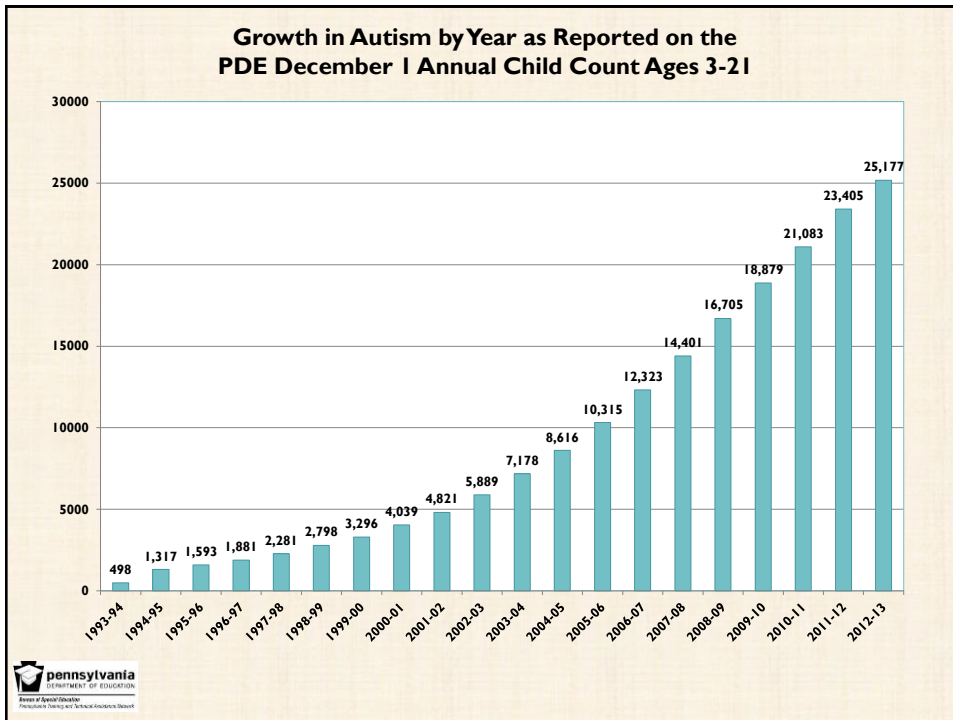
The mission of the Pennsylvania Training and Technical Assistance Network (PaTTAN) is to support the efforts and initiatives of the Bureau of Special Education, and to build the capacity of local educational agencies to serve students who receive special education services.

PDE's Commitment to Least Restrictive Environment (LRE)

Our goal for each child is to ensure Individualized Education Program (IEP) teams begin with the general education setting with the use of Supplementary Aids and Services before considering a more restrictive environment.

Introduction and Purpose

- Welcome to the National Autism Conference
- This session will:
 - Provide an overview of the conference
 - Referenced by level and topic
 - Provide background information on the field of Applied Behavior Analysis and its relation to the conference sessions and autism interventions
 - To help participants review some of the terms and concepts that may be part of many NAC sessions
 - To be generally helpful for your instruction or family life!



What Are Autism Spectrum Disorders? (DSM V Summary)

- Social-Communication deficits and Repetitive Behaviors, such as:
 - responding inappropriately in conversations,
 - misreading nonverbal interactions,
 - having difficulty building friendships appropriate to their age.
 - In addition, people with ASD may be overly dependent on routines, highly sensitive to changes in their environment, or intensely focused on inappropriate items.
- The symptoms of people with ASD will fall on a continuum, with some individuals showing mild symptoms and others having much more severe symptoms.
- Spectrum concept allows clinicians to account for the variations in symptoms and behaviors from person to person.
- Individuals with ASD must show symptoms from early childhood, even if those symptoms are not recognized until later.
- Adapted from: <http://www.dsm5.org/Documents/Autism%20Spectrum%20Disorder%20Fact%20Sheet.pdf>

What are Autism Spectrum Disorders?

- Developmental Disability
- Diagnosis derived from behavior
 - No brain scan or blood test
 - Assumed biological disorder most likely of genetic origin characterized by qualitative differences in:
 - Social communication (DSM published May 2013)
 - Repetitive and stereotyped behaviors

IDEA/Chapter 14 Autism Definition

“Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction generally evident before 3 years of age, that adversely affects a child’s educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change in daily routines, and unusual responses to sensory experiences. The term does not apply if a child’s educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in paragraph (b) (4) of this section. A child who manifests the characteristics of “autism” after age 3 could be diagnosed as having “autism” if the criteria in paragraph (c) (l) (i) of this section are satisfied.”

- Focus on social-communicative deficits
- No subtypes
- Educational performance adversely affected

The Evidence for ABA and Autism Treatments

- National Autism Center Standards Report
- Maine Administrators Report
- Huge number of research articles published in a wide range of behavioral, educational and disability focused peer reviewed journals
- Student level data: probably the strongest argument for ABA

The National Standards Project (National Autism Center)

- Identified a need for a transparent process to evaluate most recent research (up to the year 2007) and provide information about the strength and evidence supporting treatment options for both children and adolescents with autism.
- The National Autism Center's Standards Report:
 - Initially reviewed 7,038 abstracts of research
 - Rigorous review process led to a total of 775 studies being retained for final analysis

Standards Report Identified 11 Effective Treatments

- Antecedent Package - 99 studies
- Behavioral Package - 231 studies
- Comprehensive Behavioral Treatment for Young Children - 21 studies
- Joint Attention Intervention - 6 studies
- Modeling - 50 studies
- Naturalistic Teaching Strategies - 32 studies
- Peer Training Package - 33 studies
- Pivotal Response Treatment - 14 studies
- Schedules - 12 studies
- Self-management - 21 studies
- Story-based Intervention Package - 21 studies

NAC Standards Report Conclusions:

- Approximately two-thirds of the Established Treatments were developed **exclusively** from the behavioral literature (e.g., **applied behavior analysis**).
- Of the remaining one-third of the Established treatments studies are derived **predominantly** from the behavioral literature.
- This pattern of findings suggests that treatments from the behavioral literature have the strongest research support at this time
- PATTAN Autism Initiative focuses primarily on interventions derived from or relying principles of ABA

ABA and Autism Education

The findings of the NAC's Standards Report are largely consistent with other meta-analysis:

- Maine Report
- Missouri Report
- NY State Report
- Continued publications
- ABA practices are also consistent with general effective instruction

An Overview of this Conference

- Sessions planned to address wide range of interests and content levels
- Evidence base a central concern
- Education focused
- Given what I have just reviewed, many sessions focus on the process of ABA!

Sessions on the Basics

Tuesday

- Session 13 Peter Gerhardt: Adaptive Behavior (P)
- Session 15: Kathleen Quill: Early Intervention for Young Children
- Session 16: Pat McGreevy: Charting a Course of Functional Skills
- Session 17: Angela Kirby Wehr: Teacher Evaluation for Unique Roles (Danielson model)
- Session 18: Updates from the Bureau of Autism Services
- Session 19: Tina Lawson and Donna Salkin: The Role and Importance of Fluency for Students with Autism
- Session 20: S. Zeiders; H. Weitlaufer; A. Morris; K. Herb: Inclusion and Early Intervention
- Session 22: Roxann Barnett (parent): A Diagnosis of Autism: Now What? (P)
- Session 23: Heather Thompson: An Introduction to Administration of the VB-MAPP
- Session 29: Christine Bunce and Sharon Leonard: PA Standards and Autism
- Session 30: Cindy Schnieder: Acting Antics
- Session 31: Liz Maher: An Examination and Use of Technology in Autism Support Programs
- Session 32: Carl Sundberg: Teaching Sign Language (P)
- Session 34: Willow Hozella and Miguel Ampuero: Mand Training Basics (P)
- Session 36: Marisela Huerta: Explaining the DSM V criteria

Sessions on the Basics

Wednesday

- Session 44: Ivy Chong: Developing Programs for Young Children with Autism
- Session 46: Cathleen Piazza: A Summary of the Effectiveness of Feeding Treatments (P)
- Session 47: Laura Yates: Instruction Basics for Children with Autism (P)
- Session 48: Debi Finarelli: Helping Your Child Develop Good Speech Patterns (P)
- Session 58: Greg Hanley: Understanding and Treating Sleep Problems of Children with Autism (P)
- Session 59: Leigh O'Brien: Behavior Basics for Children with Autism (P)
- Session 60: Linda Franchock, Travis Young, Jaime Baker: Autism Support at the High School Level

Sessions on the Basics

Thursday AM

Session 66: Katrina Mellott: Social Skills for Higher Functioning Children

Session 67: Jane Brown, Diane Funstein, Kim Jenkins: Parent engagement in IEP Process (P)

Session 68: Kathryn Poggi: Autism and Transition

Session 70: Pat Friman: Treatment of Incontinence and Enuresis (toilet training)(P)

Session 71: Katie Arentz: Autism Support Classroom Setup

Session 72: Amiris DiPuglia: Home Programming for Your Child (P)

Thursday PM: Promising Practices (all sessions are basic!)

Toilet Training; Natural Environment Training; Summer Program; Sexuality; Peer to Peer Manding; Effective Teamwork; Inclusion; High School Students; Private School Work

So What is ABA?

- It is the application of science of learning to socially significant human behavior
 - Applied: socially significant
 - Behavior: relation between environmental events and what people do (ABC analysis)
 - Analysis: uses scientific methods to establish and evaluate applications
 - It is a process, not necessarily a procedure
- Any intervention/method can use ABA; however, not all interventions do!

Board Certification

- What is a BCBA?
- What is a BCaBA?
- Why are they helpful?

Session I I: Jim Carr Intro to BACB and Updates
(right after this session)

ABC analysis

- A is for Antecedent (before behavior)
- B is for Behavior (what a person does: observable and measureable)
- C is for consequence (after behavior)

- Video ABC analysis

Why an ABC analysis is helpful

- It avoids having to guess about un-observable events (what is going on “inside the person”)
 - Thoughts and feelings are important!
 - It’s just we can’t tell for such what a person is thinking or feeling (see Dave Palmer Session 21)
 - ABC analysis links the child to the environment.
- It is optimistic because people responsible for helping others can change antecedents and consequences
- It allows for ways of checking to see that interventions really work
 - Measures the intervention (what teacher does) as well as behavior change
 - Measures how teaching effects learning

Some Applications of ABA (videos)

- Mand Training
- Discrete Trial Training
 - Errorless Teaching
 - Error correction
- Direct Instruction
- Social skill building
- Altering a school culture

Video land discussion

- Mand Training
“head pat”

Sessions on Mand Training

- Session 12 and 24: Mark Sundberg: 30 points on motivation
- Session 34: Willow Hozella and Miguel Ampuero: mand training basics
- Session 38 and 50: Sarah Lechago: Mand Training with Students with autism
- Session 41 and 53: Ruth Anne Rehfeldt: CMO-T and teaching mands
- Session 88: Rachel Kittenbrink, Maureen Archer, Tom Miller: Peer to Peer Manding

Video 2 and discussion

- Discrete Trial Instruction
 - Errorless teaching
 - Error correction
 - Candace and Natalie

Sessions on Instruction

- Session 19: Donna Salkin and Tina Lawson: Fluency
- Session 37: Vince Carbone: CMO-R and teaching
- Session 42: Barbara Esch: Improving vocal behavior
- Session 45 and 57: Anna Petursdottir: teaching Intraverbals
- Session 62: Matt Tincani: Instructional Pacing
- Session 64: Kristin Albert protocols for teaching feature, function, class across operants
- Session 69: Amy McGinnis; teaching motor skills

Video 3 and Discussion

- Direct Instruction videos
 - Guide
 - Group

Session on Direct Instruction

- Session 63: Faith Fisher: Direct Instruction

Video 4 and Discussion

- Social Skill Training
 - Peer to Peer manding

Sessions on Social Skills

- All sessions on language development/verbal behavior (especially mand)!!
- Sssion 43: Barbara Doyle: Social Sexual Safety Skills
- Session 66: Katrina Mellott: Social Skills for Higher Functioning Children
- Session 76 and 88: Kittenbrink, Archer, Miller: Social Skills and Peer to Peer Manding

Video 5 and Discussion

- Altering a school culture
 - Elanco and Joey
 - Harrisburg Case Studies

Schools and Autism Interventions

Session 17: Kirby-Wehr: Teacher Evaluation

Session 19: Lawson and Salkin: Fluency

Session 20: Zeiders, Wettlaufer, Morris and Herb: Inclusion and Early Intervention

Session 29: Leonard and Bunce: Standards

Session 31: Liz Maher: Technology

Session 44: Developing Programs for Young Children

Session 60: Franchock, Young, and Baker: High School

Session 61: Matt Tincani: Pacing and Instruction

Sessions 83 and 95: Tara Smeltzer and Renee Decker: the Role of the General Education Teacher

Behavior Analysis Key Terms

- Antecedent
 - Motivating Operation
 - Unlearned
 - Transitive
 - Reflexive
 - Discriminative stimulus
 - Stimulus control
 - Instructional control
 - Prompt

Special Sessions on Motivation (most are advanced)

- Session 12: Mark Sundberg: 30 points on Motivation
- Session 14: Iser DeLeon: preference Assessments
- Session 37 and 49: Vince Carbone: Conditioned Motivating Operation-Reflexive
- Session 41 and 53: Ruth Anne Rehfeldt: Conditioned Motivating Operation-Transitive
- Session 65: Jose Martinez-Diaz: Motivating operations and Discriminative Stimuli

Behavior Analysis Key Terms

- Consequence
 - Reinforcement
 - Positive Reinforcement
 - Negative Reinforcement
 - Punishment
 - Extinction
 - Schedules of Reinforcement (for instance, continuous, variable ratio, interval)

Behavior Analysis and Language Programming

- Analysis of Verbal Behavior
 - Key environment-behavior interactions
 - Mand
 - Tact
 - Intraverbal
 - Echoic
 - Listener Responding
 - Imitation
 - Match to Sample
- Video on Verbal Operants

Sessions on Language and Verbal Behavior

- Session 12: M. Sundberg: 30 points
- Session 21: Dave Palmer: The Role of Joint Control in Behavior
- Session 23: Thompson: VB-MAPP Intro
- Session 32: C. Sundberg: Teaching Sign Language
- Session 34: Ampuero and Hozella: Mand Training
- Session 35: DiPuglia: Programming Verbal Behavior
- Session 38: Lechago: Mand Training
- Session 41: Rehelt: Motivation and Mand
- Session 42: Esch: Vocal Verbal Behavior
- Session 45: Petursdottir: Intraverbals
- Session 64: Albert: Feature, Function, and Class

ABA is Effective Process for Reducing Problem Behavior

- Functional Behavior Assessment
- Functional Analysis
- Looks at how behaviors function to change the environment

- Instructional Control video

Sessions on Preventing or Reducing Problem Behavior

Session 37: Carbone: Motivation (CMO-R)

Session 39: Tim Vollmer: Antecedent Considerations to Reduce Problem Behavior

Session 59: O'Brien: Behavior Basics

Some Words About Data

- Key aspect of ABA: understanding some of this may help you at this conference!
- Human memory is quite fallible
- Data helps us remember what happened
- Data helps us see patterns of performance and behavior change
- One might not need data on every behavior, but without data people often end up guessing
- Data systems should not interfere with instruction, rather they should support teaching and learning

Types of Data

- Counts
- Timings
- Continuous
- Sampled
- Skill Probes
- Cumulative responses or skills acquired

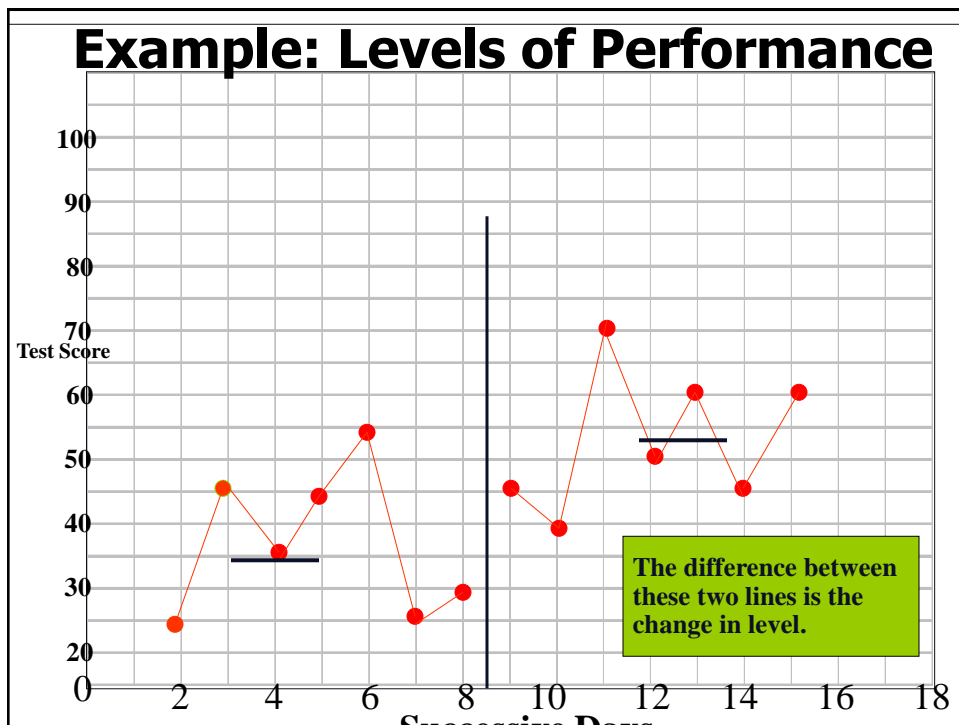
The Analysis: Functional Relations

- Graphs are very valuable
 - They allow a quick check of how a program or intervention is working
- Tests to determine if things are working:
 - If I change a way I teach, does it consistently change what the student does?
 - Does the intervention function to change behavior? (turn it off and on)

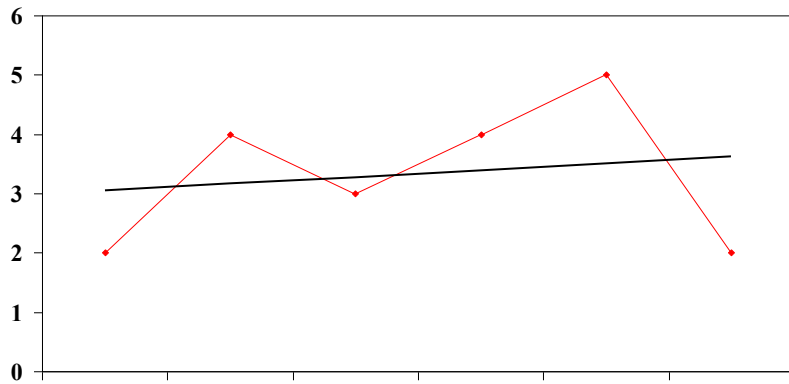
A little discussion on study designs

- Group:
 - Statistical, average changes between groups
- Single study
 - How does the intervention alter how one person is doing?

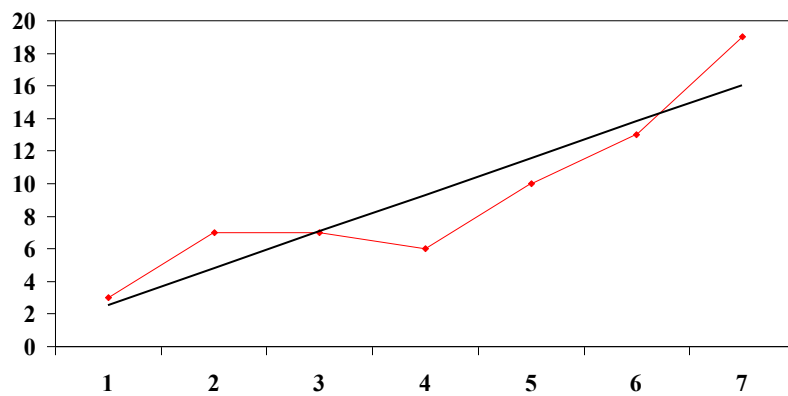
And now, a little help to understand graphs and study designs..



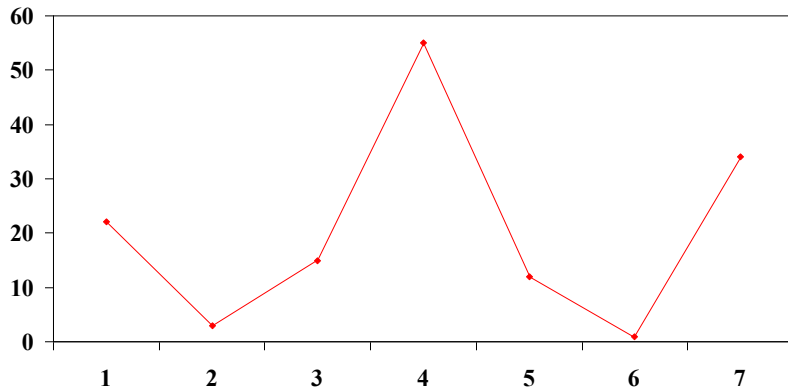
Trend



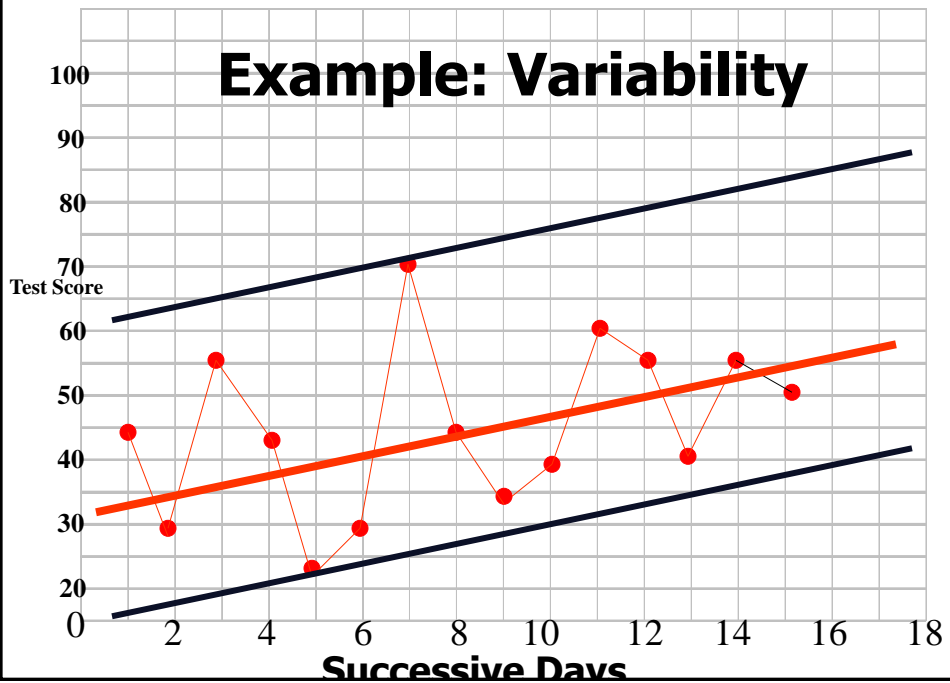
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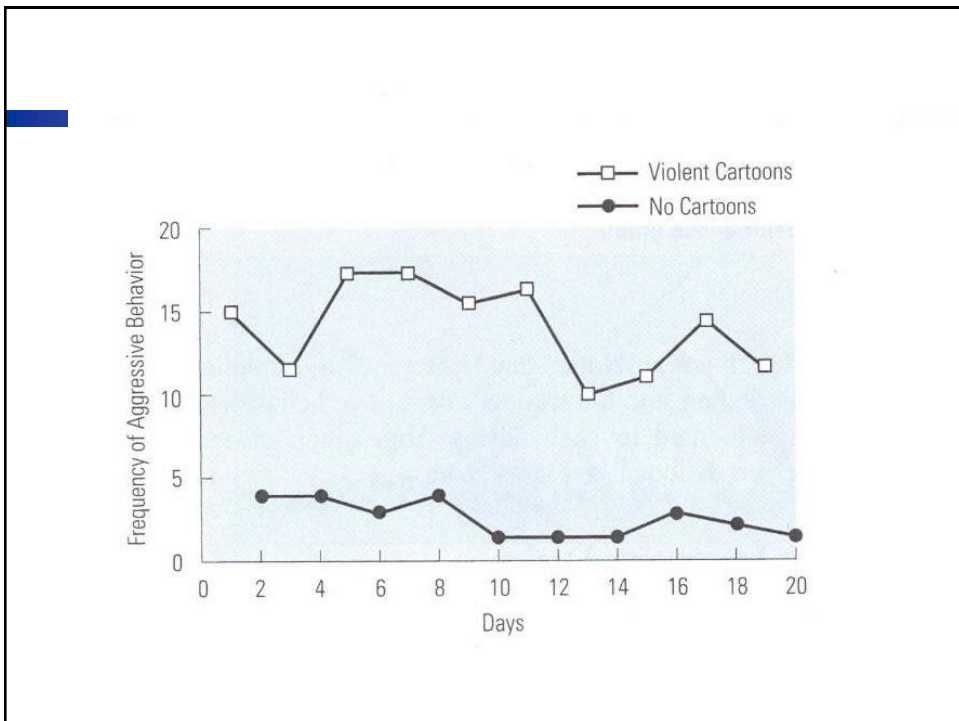
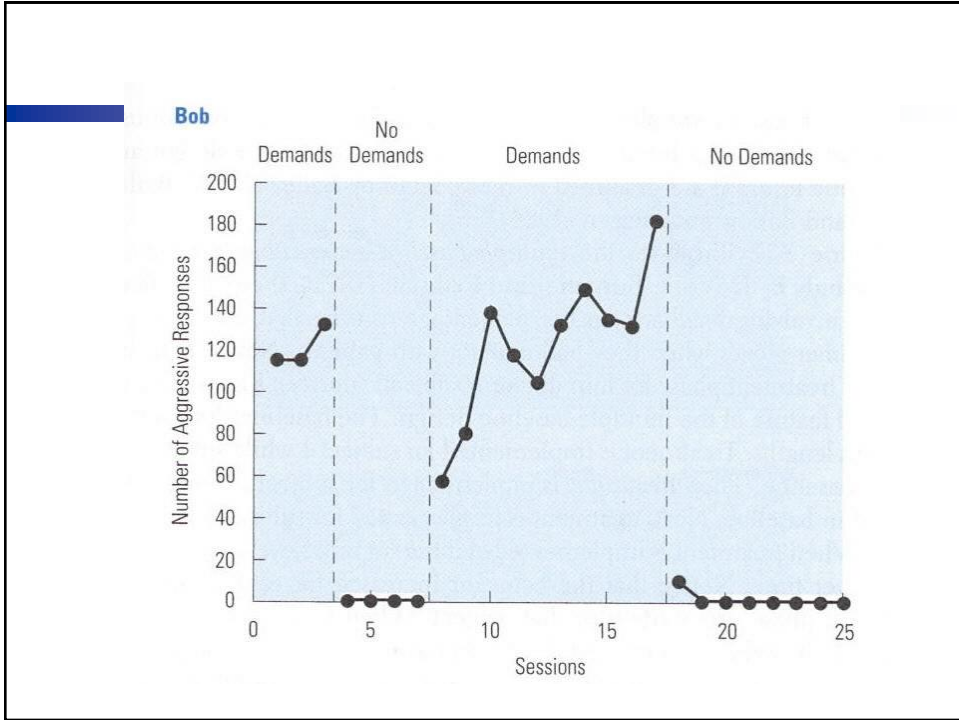


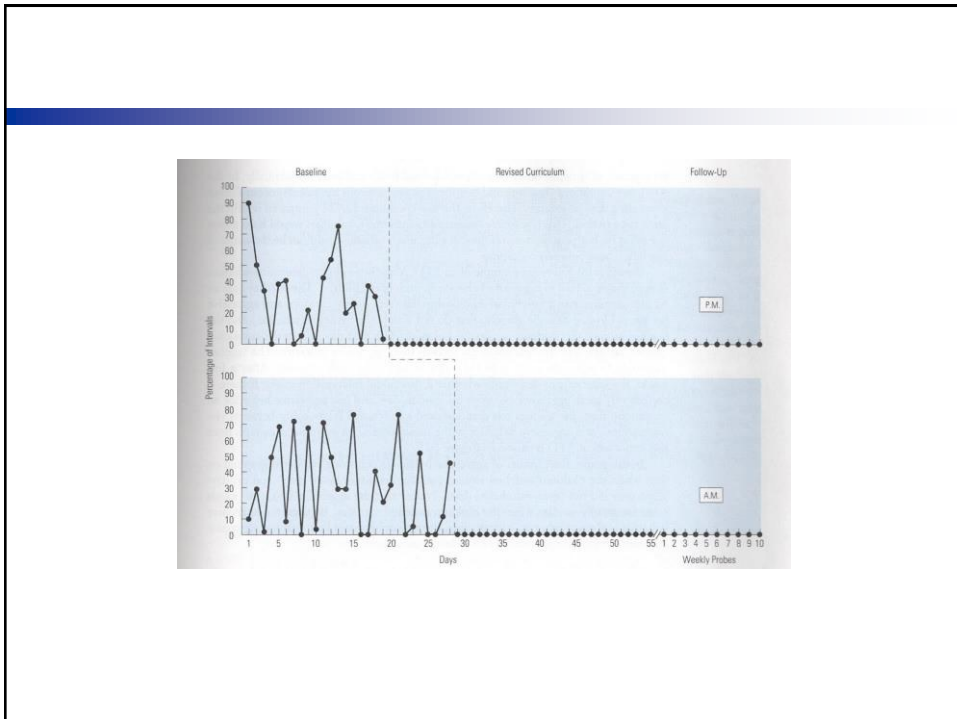
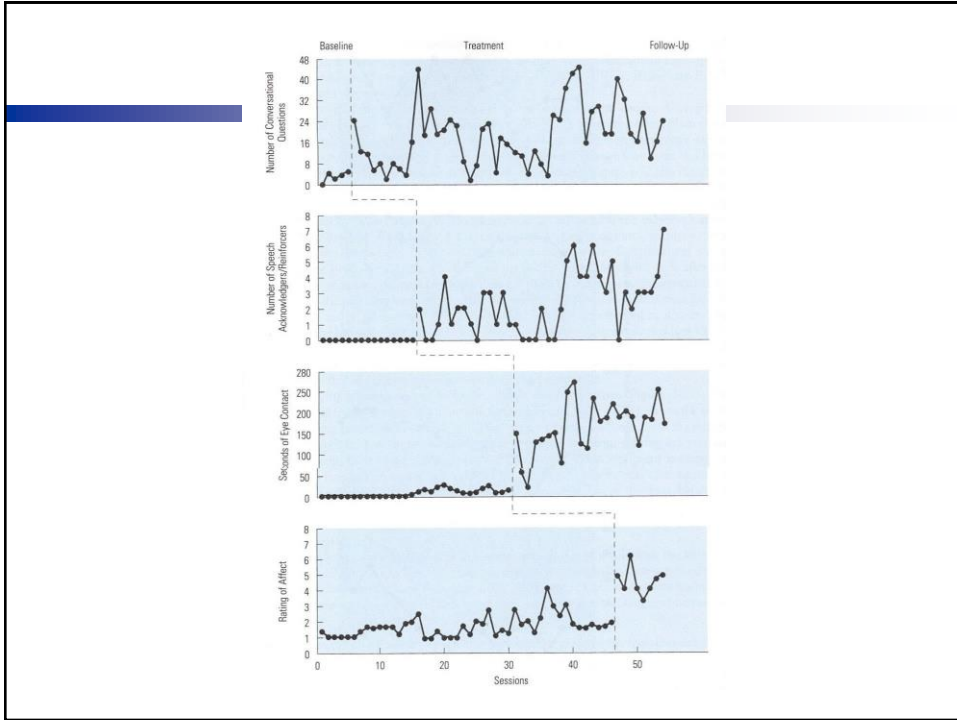
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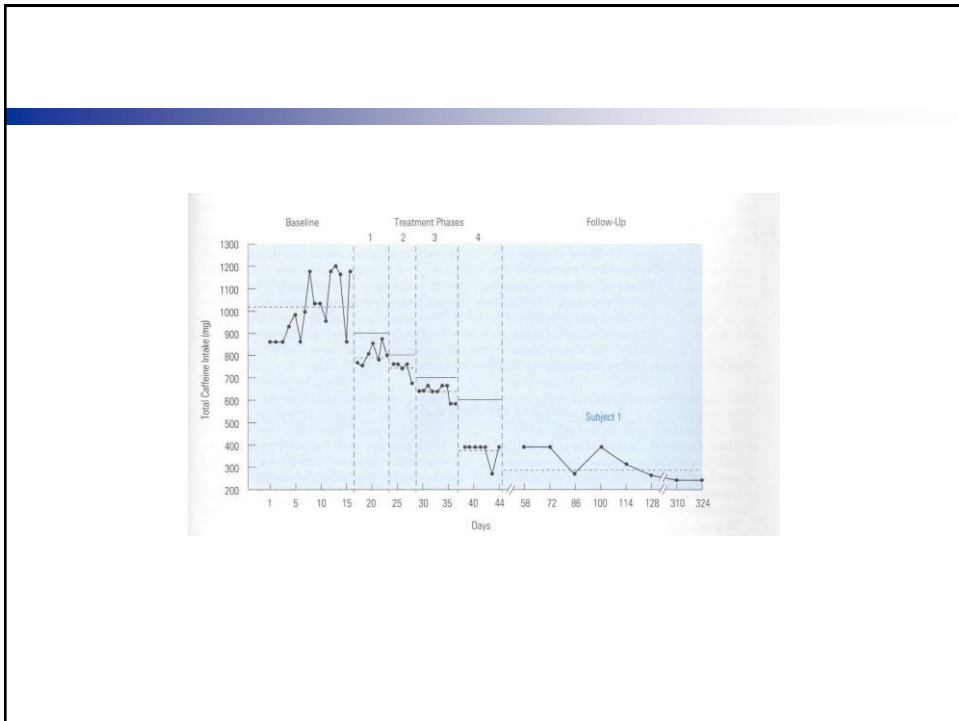
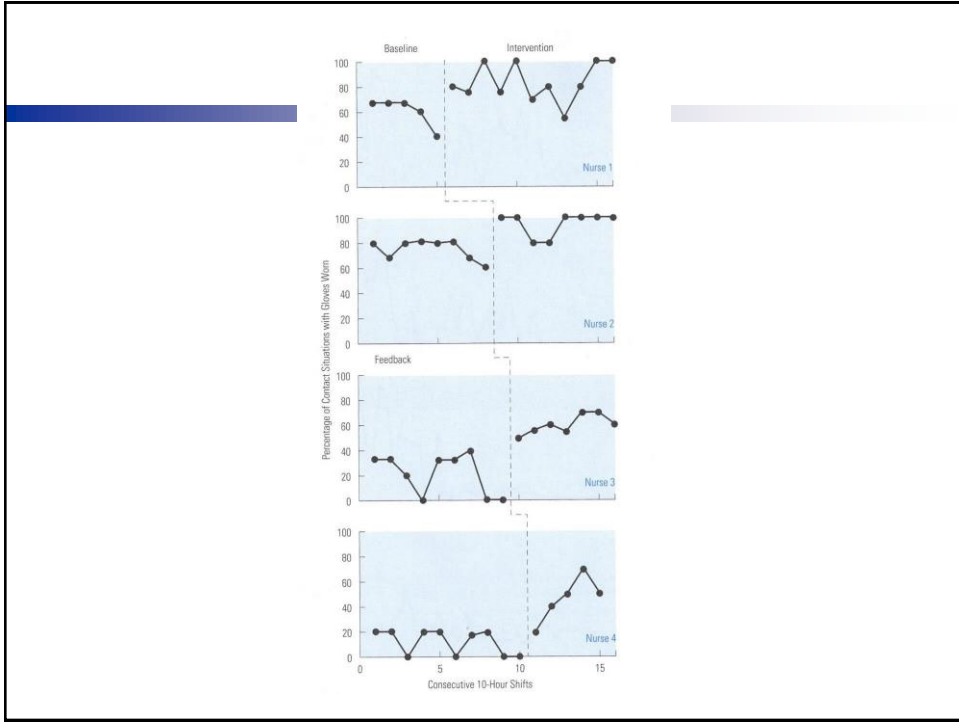


Example: Variability









Video

- Data systems
- Mand training and data collection: Watch Wyatt Go!
- Remember the closing session on Thursday: Ana and Curt Warner: On a Family's Journey

Remember: PATTAN staff are here to help!
Please ask!

- Thank you for attending this session and hope you have a productive and enjoyable conference experience!

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