

# USING THE FBA/BIP TECHNICAL ADEQUACY EVALUATION TOOL (TATE) TO DETERMINE HOW WELL YOUR DISTRICT IS DOING

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# First.....

- FDLRS Multi-Disciplinary Centers (MDCs)
- Purpose of clinics is to function under an interdisciplinary framework to provide:
  - evaluations, consultations, and interventions for children and youth with the most complex behavioral, developmental, or learning problems
  - Parent support and education services to enhance child's academic success
  - Consultation and TA to school/district personnel
  - Training/presentations for educators, community, and university students

# First.....

- Five MDCs currently funded and housed in major universities
  - FSU—Louise R. Goldhagen MDC Evaluation & Consulting Center
    - <http://mdc.fsu.edu/>
  - UF—Multidisciplinary Diagnostic & Training Program
    - <http://www.peds.ufl.edu/mdtp/>
  - UF-Jacksonville—FDLRS-UF/JAX
    - <http://www.hscj.ufl.edu/pediatrics/diagnostic-and-learning-resources/>
  - UM—FDLRS-UM
    - <http://www.fdlrs-um.miami.edu/>
  - USF—Interdisciplinary Center for Evaluation and Intervention (ICEI)
    - <http://icei.fmhi.usf.edu/>
- For further information, contact clinic directors (flyers)

# Objectives

- Participants will:
  - Describe the purpose of the Technical Adequacy evaluation tool
  - Apply a scoring rubric to case examples
  - Discuss further use of the evaluation in their settings

# What do you picture when you think of the FBAs and BIPs in your district/school/setting?



Or.....



# Context for FBAs/BIPs

- FBA/BIP—substantial evidence base
- Behavior ‘gold’ standard for nearly 20 years
- Systemic and skill issues impeding implementation
- Wealth of literature providing evidence-basis
  - BUT, does not address the contextual fit of FBA in school culture (Scott & Kamps, 2007)
    - Educators’ willingness and ability to engage in process
    - Level and intensity of FBA necessary to result in improvements
- Conceptually, FBA seen as tool for use in multi-tiered system of supports rather than separate process
  - If part of process, may change traditional definition of what and who is involved in FBA

# Current Status of FBA/BIP Implementation in Schools (Scott & Kamps, 2007)

- Although FBA in special education law since 1997, no systematic policies adopted at federal level
- No guidance on key components (who should do FBAs, what features must be included, etc.)
- Three primary flaws in school-setting use (Scott, Liaupsin, Nelson, & McIntyre, 2005).
  - Often used as reactive process
    - Loses power of prevention in developing interventions addressing minor behaviors before they get serious
  - “Expert” model overlooks valuable input gained from persons with whom student consistently interacts
  - Rigid, rigorous procedures not feasible in public school settings
- In response, schools have “implemented a variety of inexact practices and procedures that have been loosely labeled as FBA, the majority of which are not tied to any solid evidence base. (Scott, Anderson, & Spaulding, 2008)



# The Top Ten List of Things Needed at Tier 3/Individualized Behavior Supports (Iovannone & Kincaid, in review)

1. Multiple levels of Tier 3
2. Consistent, fluent process with problem solving-process framework
3. Collaborative teaming
4. Problem identification
5. Data collection, simplified
6. Linking hypothesis to the FBA and behavior interventions to hypothesis

# The Top Ten List of Things Needed at Tier 3/Individualized Behavior Supports (Iovannone & Kincaid, in review)

7. Multi-component task-analyzed strategies behavior intervention plan matched to classroom context
8. Teacher and classroom coaching/support
9. Array of outcome measures (child-specific, teacher fidelity, social validity, alliance, fidelity of process, technical adequacy of products)
10. Maintenance (beyond “warranty”)

# **TECHNICAL ADEQUACY TOOL FOR EVALUATION (TATE)**

# Technical Adequacy Research

- Recent studies conducted exploring technical adequacy of FBAs
  - Blood, E., & Neel, R. S. (2007). From FBA to implementation: A look at what is actually being delivered. *Education and Treatment of Children*, 30, 67-80.
    - Evaluated FBAs/BIPs of 43 students in self-contained classrooms for EBD (K-12) in one school district in western US
    - Reviewed FBAs/BIPs for inclusion of essential components (listed in article)
    - Interviewed 6 EBD teachers about use of FBA/BIPs in planning and developing programs (e.g., “what is included on the plan?”, “How is plan implemented?” “How do you show progress?”)
  - Van Acker, R., Boreson, L., Gable, R. A., & Potterton, T. (2005). Are we on the right course? Lessons learned about current FBA/BIP practices in schools. *Journal of Behavioral Education*, 14, 35-56.
    - 71 completed FBA/BIPs submitted for review from school districts across midwest state
    - Rating scale developed for analysis (see article for scale)

# Some Results of Technical Adequacy Research

- Teaming issues:
  - Teacher and other input not included
- Identifying behaviors
  - Target behaviors were missing or inadequately defined
- Match of FBA to Hypothesis
  - Attempt to assign one function/hypothesis to group of target behaviors (e.g., treated all behaviors as one behavior—collected data and developed interventions)
  - Hypothesis statements missing or inadequate
- Behavior intervention plan development
  - Behavior strategies not linked with hypothesis statement(s)
  - Predominant type of BIP “hierarchical stock list of possible positive and negative consequences” that follow any problem behavior.
  - Replacement behaviors not included
  - Van Acker—46% FBA/BIPs reviewed only included aversive strategies

# Some Results of Technical Adequacy Research

- Follow-up
  - Lack of follow-up support for monitoring and evaluating plan including fidelity
  - No follow-through on next steps (promote and check maintenance and generalization of behavior change)
- Blood interviews with teachers
  - None was able to identify behavior goals nor describe behavior intervention
  - Did not use FBA/BIPs in development of behavior interventions

# Purpose of Our Tool

- Determine the technical adequacy of FBA/BIPs and establish baseline and data for improvement
  - District
  - Campus/School
  - Individual
- Second step in requesting Tier 3 technical assistance from Florida PBS/RTI:B Project (Interview of Tier 3 process first step)
- Report generated to guide action planning

# Other Uses

- Evaluating FBA/BIPs from students in districts having high reporting of restraint/seclusion incidents
- Provides data for DOE report to district
- Allows DOE and district to identify areas of improvement (if necessary)



# Development of Tool

- Review of literature to identify essential components for adequate FBA/BIPs
- Original measure included 24 items (FBA/BIP)
- Edited to 20 items
- Sent out to three national experts (Terry Scott, Cindy Anderson, Glen Dunlap) to review
  - Is the item essential?
  - Is the item worded clearly?
- Final tool contains 18 items (9 FBA/9 BIP)
- Rubric provides scoring guidelines
- Scores range from 0-2 for each item.

# Preliminary Psychometrics

- How reliable is the TATE?
  - Inter-rater reliability
    - FBA—82 percent agreement; Kappa coefficient = .81
    - BIP—87 percent agreement; Kappa coefficient = .89
  - Internal consistency (Pearson Product Moment Correlations)
    - FBA = .86\*
    - BIP = .91\*
    - Total = .88\*

\* $p = 0.01$

# Outcomes (Preliminary)

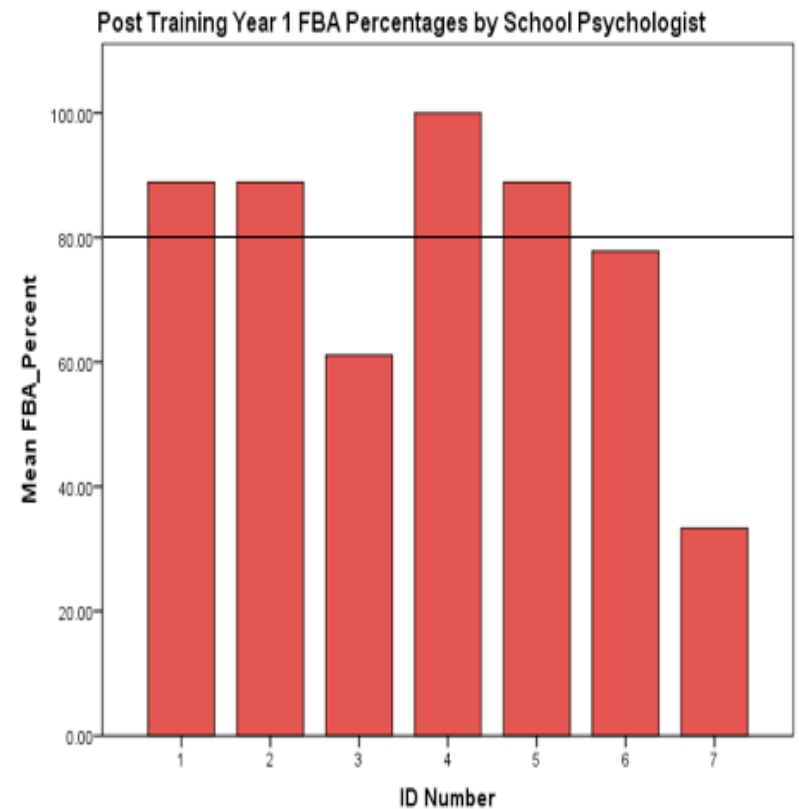
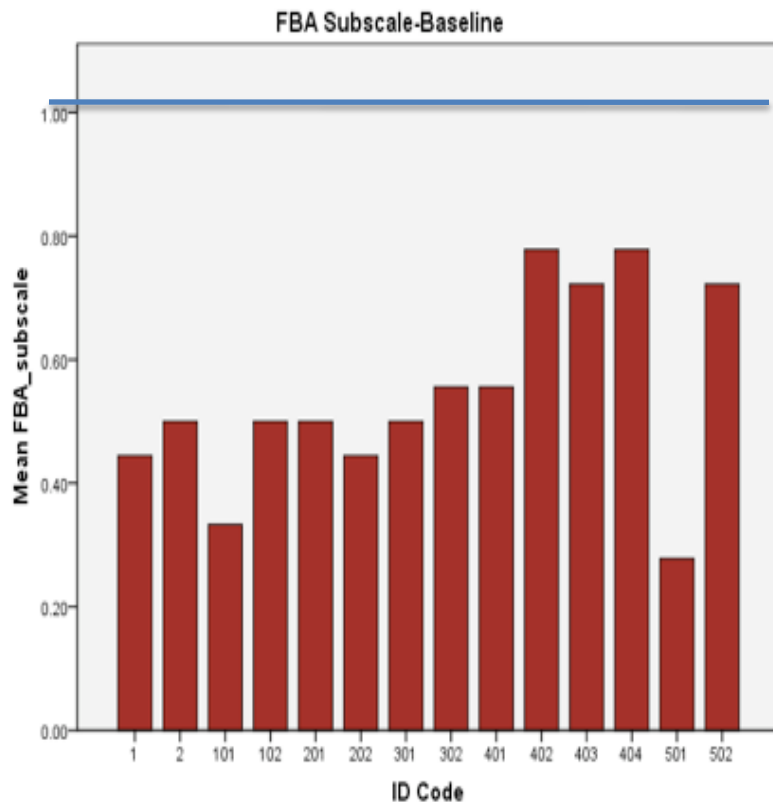
- Pattern of performance similar to previous research
- FBA Items
  - Strengths (highest mean scores)
    - More than one source used for FBA
    - Identifying functions that are observable (e.g., escape/avoid; get/obtain)
  - Challenges (lowest mean scores)
    - Considering and identifying setting events
    - Identifying contexts in which problem behavior is absent
    - Identifying responses (consequences) that immediately follow problem behavior

# Outcomes (Preliminary)

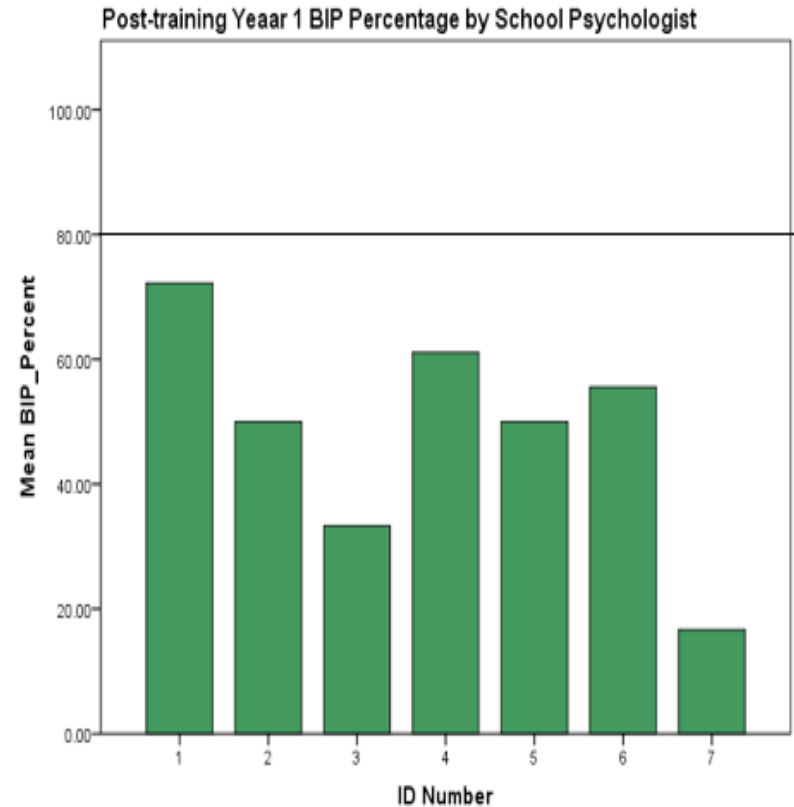
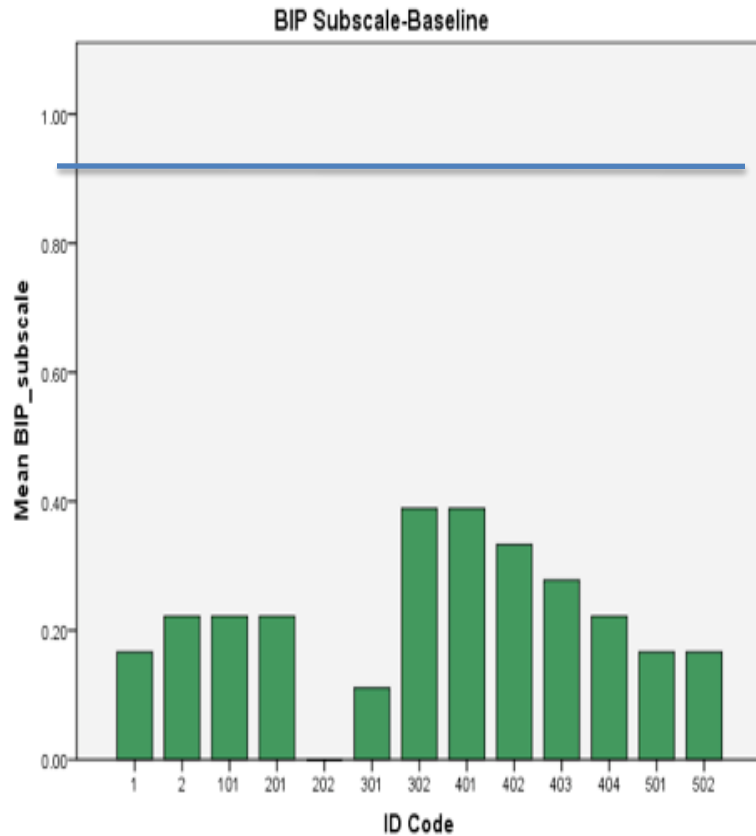
- BIP Items
  - Strengths
    - BIP completed in timely fashion after FBA
    - Hypothesis included or referenced on BIP
    - Crisis plan consideration (lack of detail)
  - Challenges
    - Interventions not linked to hypothesis
    - Interventions described in stock lists of strategies
    - Interventions to change responses to problem behaviors missing or not linked to function
    - Plans for evaluating fidelity of implementation missing

**SAMPLE GRAPHS/TABLES  
GENERATED BY TOOL**

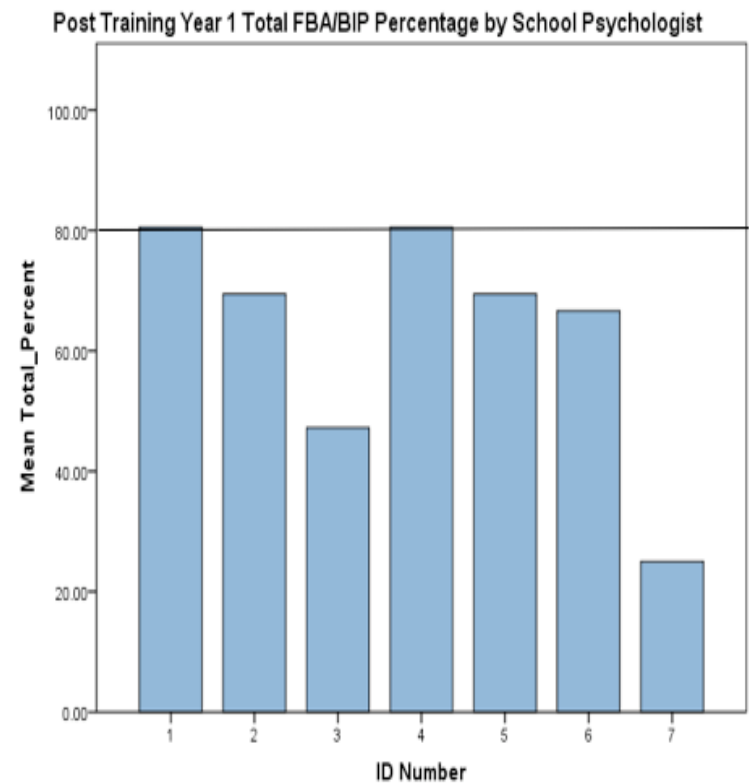
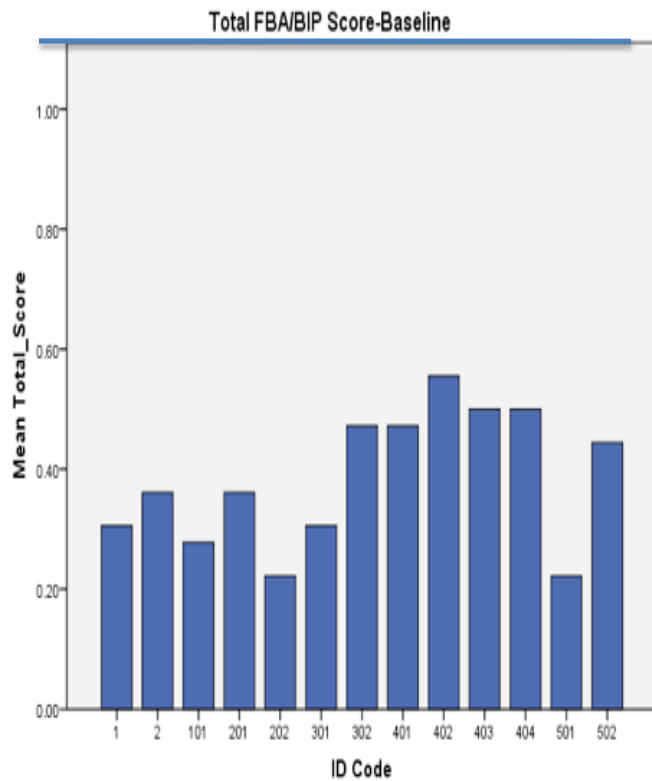
# Sample Graphs—Baseline/post FBA



# Sample Graphs BIP Baseline/Post



# Sample Graph: Total FBA/BIP Baseline/Post





# Sample Tables Baseline/Post

Table 1. Overall Mean Scores FBA/BIP Baseline Evaluation

Item	Mean Raw Score (max = 2.0)	Standard Deviation
<b>FBA (N = 14)</b>		
Item 1-Sources of FBA	.93	.48
Item 2-Operational Definition	.93	.92
Item 3-Baseline Data	1.00	.39
Item 4-Setting Events	.43	.51
Item 5-Antecedents/problem behavior	1.43	.51
Item 6-Antecedents/appropriate behavior	1.21	.43
Item 7-Consequences	1.50	.52
Item 8-Hypothesis components	1.07	.73
Item 9-Function research identified	1.30	.73
<b>BIP (N = 13)</b>		
Item 1-Timeline between FBA/BIP	1.54	.78
Item 2-FBA hypothesis referenced	.38	.77
Item 3-Prevention strategy/link	.77	.44
Item 4-Replacement behavior strategy/link	.54	.52
Item 5-Reinforce new behavior strategy/link	.23	.44
Item 6-Discontinue reinforcing problem behavior	.00	.00
Item 7-Crisis plan need considered	.23	.60
Item 8-Monitoring/evaluating data plan	.23	.44
Item 9-Fidelity/support plan	.08	.28
<b>Total Scales</b>	<b>Mean Percentage</b>	<b>Standard Deviation</b>
FBA subscale	.55	.16
BIP subscale	.22	.11
<b>Total Score</b>	<b>.38</b>	<b>.11</b>

Table 1. Overall Mean Scores FBA/BIP Post-Training Evaluation

Item	Mean Raw Score (max = 2.0)	Standard Deviation
<b>FBA (N = 7)</b>		
Item 1-Sources of FBA	1.57	.79
Item 2-Operational Definition	1.71	.76
Item 3-Baseline Data	2.00	.00
Item 4-Setting Events	.43	.79
Item 5-Antecedents/problem behavior	1.57	.79
Item 6-Antecedents/appropriate behavior	1.57	.79
Item 7-Consequences	1.43	.98
Item 8-Hypothesis components	1.71	.49
Item 9-Function research identified	1.86	.38
<b>BIP (N = 7)</b>		
Item 1-Timeline between FBA/BIP	1.43	.98
Item 2-FBA hypothesis referenced	1.00	1.00
Item 3-Prevention strategy/link	1.43	.79
Item 4-Replacement behavior strategy/link	1.43	.79
Item 5-Reinforce new behavior strategy/link	1.14	.90
Item 6-Discontinue reinforcing problem behavior	1.00	1.00
Item 7-Crisis plan need considered	.29	.76
Item 8-Monitoring/evaluating data plan	1.00	.00
Item 9-Fidelity/support plan	.00	.00
<b>Total Scales</b>	<b>Mean Percentage</b>	<b>Standard Deviation</b>
FBA subscale	77%	.22
BIP subscale	48%	.18
<b>Total Score</b>	<b>62%</b>	<b>.20</b>

# Sample Tables: Baseline/Post comparison

Table 2. Change in Mean Scores from Baseline to Post-training

Item	Mean Score Pre/Post	Change
<b>FBA (N = 14/7)</b>		
Item 1-Sources of FBA	.93/1.57	+.54
Item 2-Operational Definition	.93/1.71	+.78
Item 3-Baseline Data	1.00/2.00	+1.00
<b>Item 4-Setting Events</b>	<b>.43/.43</b>	<b>0</b>
Item 5-Antecedents/problem behavior	1.43/1.57	+.14
Item 6-Antecedents/appropriate behavior	1.21/1.57	+.36
<b>Item 7-Consequences</b>	<b>1.50/1.43</b>	<b>-.07</b>
Item 8-Hypothesis components	1.07/1.71	+.64
Item 9-Function research identified	1.30/1.86	+.56
<b>BIP (N = 13/7)</b>		
<b>Item 1-Timeline between FBA/BIP</b>	<b>1.54/1.43</b>	<b>-.11</b>
Item 2-FBA hypothesis referenced	.38/1.00	+.62
Item 3-Prevention strategy/link	.77/1.43	+.66
Item 4-Replacement behavior strategy/link	.54/1.43	+.89
Item 5-Reinforce new behavior strategy/link	.23/1.14	+.91
Item 6-Discontinue reinforcing problem behavior	.00/1.00	+1.00
Item 7-Crisis plan need considered	.23/.29	+.06
Item 8-Monitoring/evaluating data plan	.23/1.00	+.77
<b>Item 9-Fidelity/support plan</b>	<b>.08/.00</b>	<b>-.08</b>
<b>TOTAL SCALES</b>	<b>Mean</b>	<b>Change</b>
	<b>Percentage</b>	
FBA subscale	55%/77%	+22%
BIP subscale	22%/48%	+26%
Total Score	38%/62%	+34%

# Sample Report

- Report to Department of Education

**PRACTICE TIME**

# Before practicing....

- Review of tool items
  - Evaluation
  - Scoring guide

# Scoring Tips

- Use rubric examples to guide your scoring
  - Match your item with the closest example given on rubric
- If uncertain of score, decide on one of two strategies:
  - Always give credit for the higher score OR
  - Alternate scoring-first time, give credit for higher score, second time-give credit for lower score

# Practice Time

- Team up with others
- Try scoring the sample completed FBA/BIP given to you with the evaluation tool
- Come to consensus on the scores
- Debrief
  - What did you like?
  - What did you dislike?
  - What was easy?
  - What was difficult?
  - What questions do you still have?

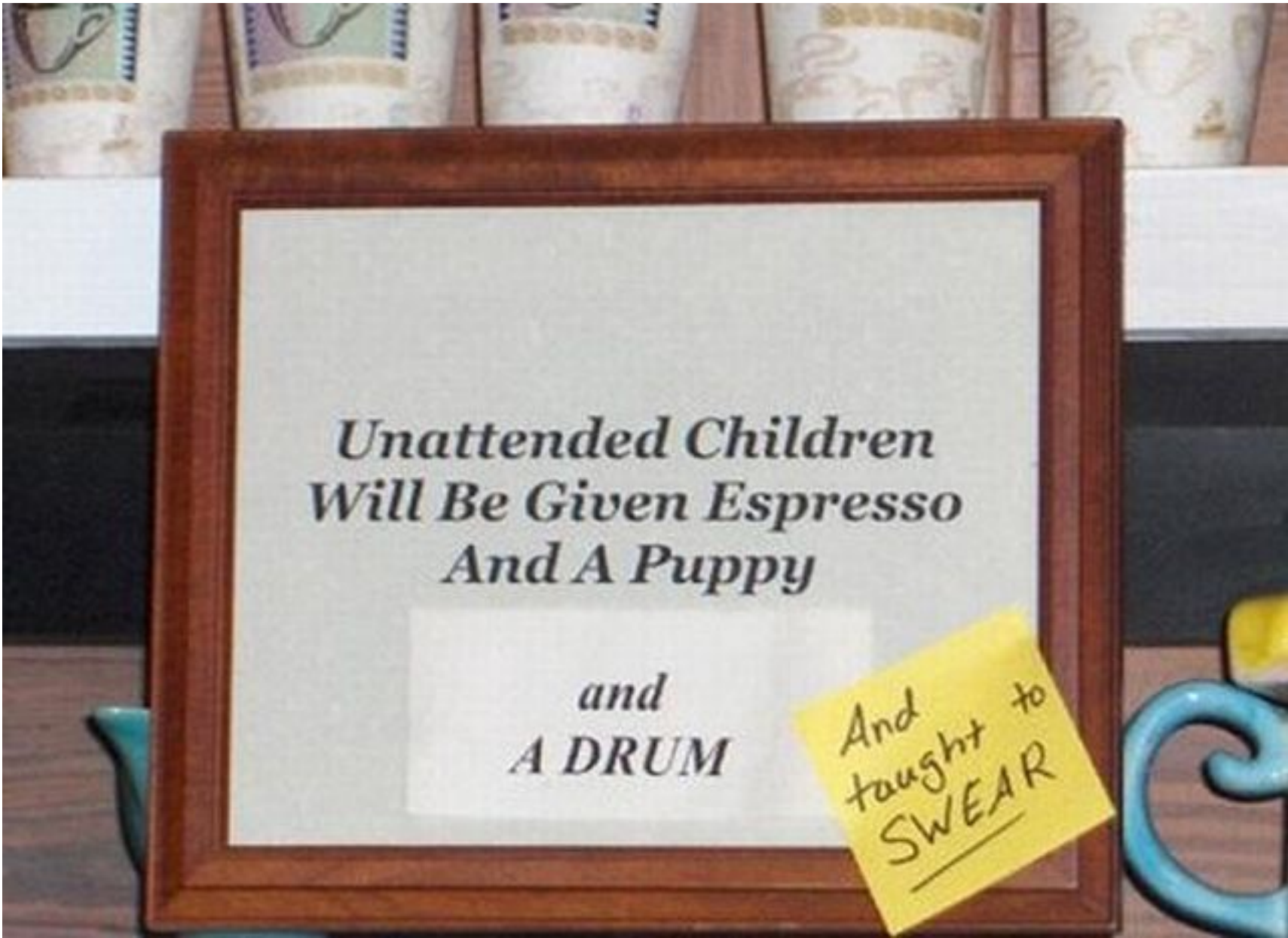
# PTR and PTR Related Publications

- PTR Manual
  - Dunlap, G., Iovannone, R., Kincaid, D., Wilson, K., Christiansen, K., Strain, P., & English, C., 2010. Prevent-Teach-Reinforce: The School-Based Model of Individualized Positive Behavior Support. Baltimore: Paul H. Brookes.
- Journal Articles
  - Iovannone, R., Greenbaum, P., Wei, W., Kincaid, D., Dunlap, G., & Strain, P. (2009). Randomized controlled trial of a tertiary behavior intervention for students with problem behaviors: Preliminary outcomes. *Journal of Emotional and Behavioral Disorders*, 17, 213-225.
  - Dunlap, G., Iovannone, R., Wilson, K., Strain, P., & Kincaid, D. (2010). Prevent-Teach-Reinforce: A standardized model of school-based behavioral intervention. *Journal of Positive Behavior Interventions*, 12, 9-22
  - Strain, P. S., Wilson, K., & Dunlap, G. (2011). Prevent-Teach-Reinforce: Addressing problem behaviors of students with autism in general education classroom. *Behavior Disorders*, 36, 160-171.
  - Iovannone, R., Greenbaum, P., Wei, W., Kincaid, D., & Dunlap, G. (in press). Reliability of the Individualized Behavior Rating Scale-Strategy for Teachers (IBRS-ST): A Progress Monitoring Tool. *Assessment for Effective Intervention*.
  - Sears, K. M., Blair, K. S. C., Iovannone, R. & Crosland, K., (in press). Using the Prevent-Teach-Reinforce model with families of young children with ASD. *Journal of Autism and Developmental Disabilities*.



# Questions?





*Unattended Children  
Will Be Given Espresso  
And A Puppy*

*and  
A DRUM*

*And  
taught to  
SWEAR*