DBHDS

An Introduction to the Practical Functional Assessment

Objectives

- Discuss how Functional Analyses (FA's) improve the results of a Functional Behavior Assessment (FBA)
- Discuss the difference between the PFA and traditional FA's
- Give an overview of the Practical Functional Assessment (PFA)
- Discuss the use of PFA with adult populations

Importance of Understanding Function in a Functional Behavior Assessment

- A functional behavior assessment provides the clinician the evidence to make hypotheses about the relations among specific types of environmental events and behaviors.

- “What is the person trying to get?” or “What is the person trying to avoid?”

- Conducting a good FBA can:
  - Alter antecedent variables
  - Alter consequence variables
  - Help to identify replacement behaviors

(Cooper, J.O., Heron, T.E., Heward, W.L. 2020)

Pitfalls Attributed to Arbitrarily Selecting Function

- Insufficient, premature efforts to understand function could lead to treatment that is ineffective, inefficient, and harmful.

- Fictional Case Example:
  - A procedure is prescribed to decrease aggression
  - It is “assumed” aggression occurs to escape taking a shower
  - When aggression occurs, the procedure is implemented
  - Aggression may function to escape post shower activities
  - It’s highly probable that aggression will continue to occur

- Without understanding the function, the effectiveness of the intervention cannot be predicted.

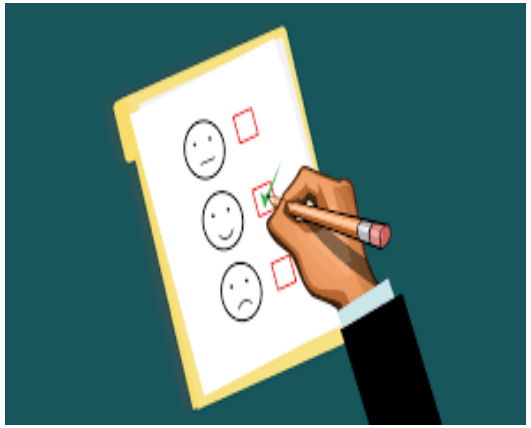
(Cooper, J.O., Heron, T.E., Heward, W.L. 2020)

Functional Behavior Assessment Tools – Indirect Assessments

- Indirect Assessments: Do not require any direct observation. Examples are behavioral interviews, rating scales, questionnaires, and checklists.

  - Behavioral Interviews: Functional Assessment Interview (FAI), Behavior Diagnostic and Treatment Information Form, Open Ended Functional Assessment Interview

  - Behavior Rating Scales: Motivation Assessment Scale (MAS), Problem Behavior Questionnaire (PBQ), Functional Analysis Screening Tool (FAST), Questions About Behavior Function (QABF).



Pros: Can guide more empirical assessment, aid in developing hypotheses, practitioners typically find these assessments convenient, and less effortful than other assessments.

Cons: Have been repeatedly demonstrated to be unreliable (e.g. MAS and QABF). Can produce undifferentiated results.

(Cooper, J.O., Heron, T.E., Heward, W.L. 2020)
(Hanley, G.P. 2012)

Functional Behavior Assessments Tools – Descriptive Assessments

- Descriptive Assessments: There is direct observation but there is no adjustment of the environment.
  - ABC Continuous Recording: observer records the antecedent, problem behavior, and consequence during an individual's natural routine.
  - Narrative Recording: data is collected only when the behavior occurs in an open-ended format. May be best suited for gathering preliminary information before using other measures.
  - Scatterplot Recording: this measure is used when the observer is interested on specific times when the behavior occurs.

Pros: Correlations may reflect causal relations where conditional probabilities can be derived. Could provide information to pinpoint times when the problem behavior is more likely to occur.

Cons: Tend to yield false positives for an attention function, false negatives for the escape function, and can take a long time as observers have to wait for problem behavior to occur in uncontrolled environments.

(Cooper, J.O., Heron, T.E., Heward, W.L. 2020)
(Hanley, G.P. 2012)

Functional Behavior Assessment Tools – Functional Analysis

- **Traditional Functional Analysis: antecedents and consequences are orchestrated in an analog manner in a controlled setting that best represents conditions in the individual's natural environment.**
  - **Traditional functional analysis has four different condition – control, attention, escape, and alone (sometimes tangible).**
  - **Conditions are presented one at a time in an alternating sequence.**
  - **Functional analyses should be flexible, individualized, and can have additional conditions included or excluded.**

Pros: Yield clear results of variable/variables maintaining problem behavior, provide data to serve as a baseline for treatment, and effective reinforcement procedures can be developed.

Cons: Assessment process may temporarily increase problem behavior, not all people understand it, problems with "buy in," conducted in contrived settings, too much time, effort, the FA may trigger dangerous behavior.

Which of these is the best reason to conduct a functional analysis?

A. It is a billable activity.

B. It is not recommended because indirect assessments are sufficient.

C. Insufficient, premature efforts to understand function could lead to treatment that is ineffective, inefficient, and harmful.

D. It is quick and does not require any certification.

E. All of the above

F. None of the above

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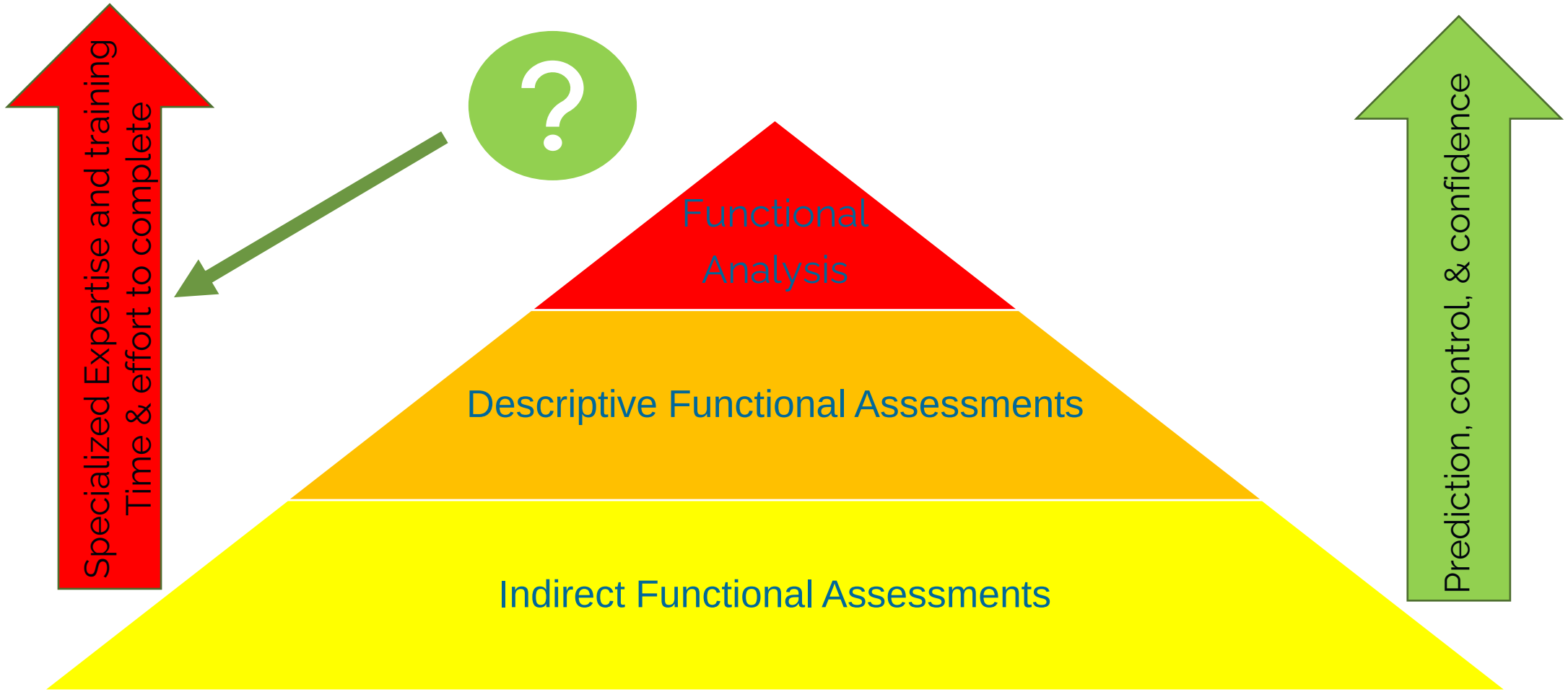
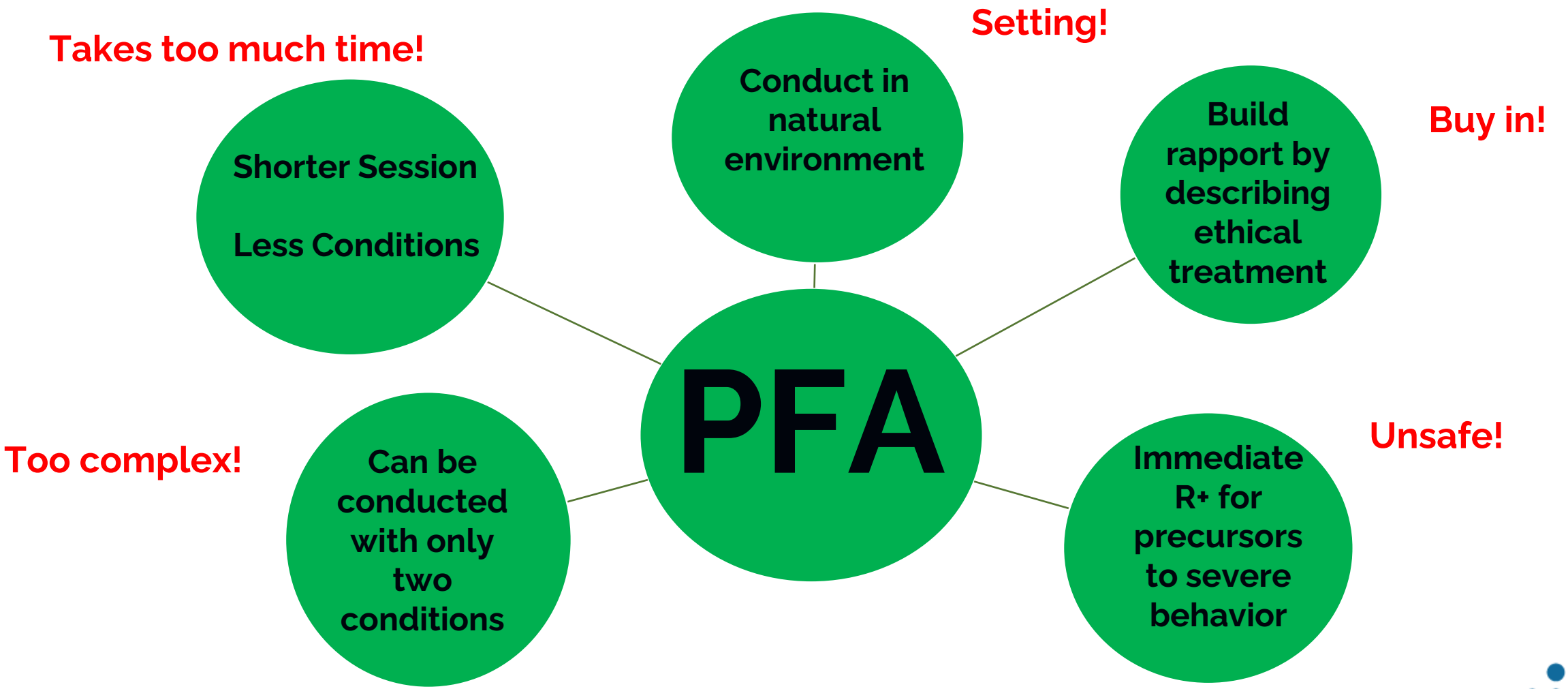
Hierarchy of Functional Behavioral Assessments



(Cooper, J.O., Heron, T.E., Heward, W.L. 2020)

Technological Advancements in Functional Analyses



What is the PFA?

- Starts with an open-ended interview with caregivers
- Followed by a Functional Analysis of the behavior, specifically an IISCA (Interview Informed Synthesized Contingency Analysis)
- Prioritizes safety, dignity, televisibility and rapport

- Goals of the PFA are:
  - Identify a context where the individual is happy, relaxed and engaged, without problem behavior
  - Show influence over problem behavior (can we turn the behavior on and off) rather than determining an isolated reinforcement contingency that maintains problem behavior

(Hanley, 2023)

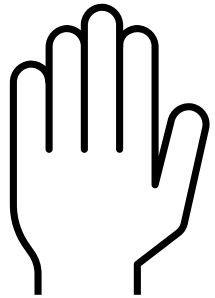
What are Synthesized Contingencies?

- In functional analyses, establishing operations(EOs) for problem behavior are contrived during test conditions to evoke problem behavior.
- When one contingency is applied, it can be considered an isolated contingency.
- Synthesized contingencies involve presenting multiple evocative events at once.
- Response topographies are synthesized across response class.

(Slaton, J.D., Hanley, G.P., and Raftery, K.J. 2017)

Isolated vs. Synthesized Contingencies

Access to tangible reinforces hitting



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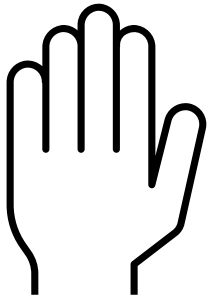
Access to tangible and attention reinforces yelling and/or hitting



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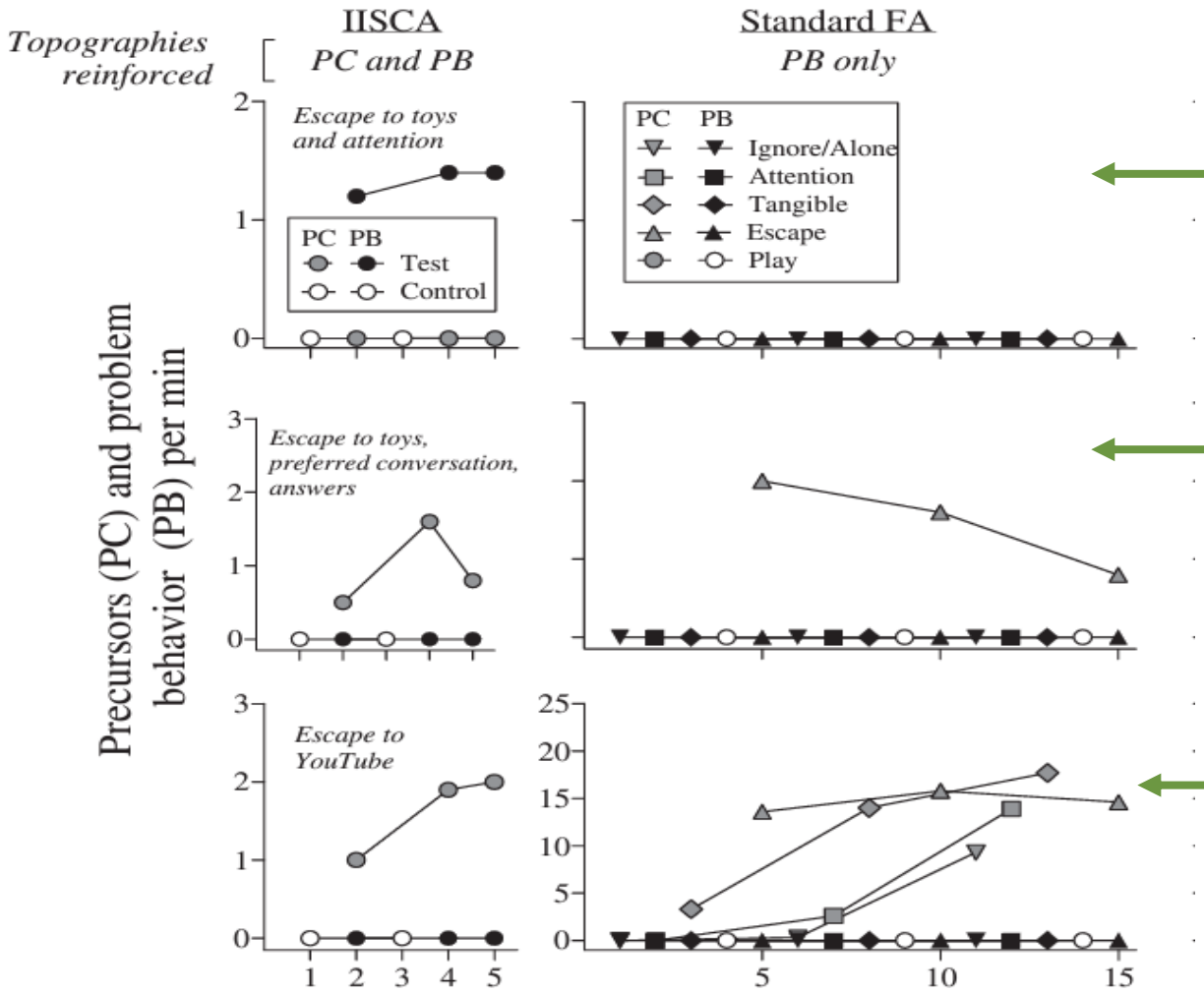
Synthesized vs. Isolated Contingencies



Problem behavior was evoked when presented with a synthesized contingency

Problem behavior was evoked when presented with a synthesized and isolated contingency

Problem behavior was evoked for both synthesized and isolated, but standard FA was undifferentiated

Slaton, J.D., Hanley, G.P., Raftery, K.J., 2017

What are some features of the PFA?

A. Open Ended Interview, Functional Analysis, Synthesized Contingencies
B. Showing influence over the behavior
C. Five isolated conditions (control, escape, attention, tangible, alone)
D. All of the above
E. Both A and B

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Open-Ended Interview

- Consists of 20 questions
- Typically takes anywhere from 10 to 45 minutes to complete
- Intended for those who know the individual well

4-Part Mission of the Interview

Identify and define most severe problem behavior (R1) and associated non-dangerous behaviors (R2)

Identify reinforcers and precise forms of delivery

Identify EOs that are most challenging and convenient to replicate

Identify the final behavioral expectations in at least 3 relevant contexts

(Hanley, 2023)

Open-Ended Functional Assessment Interview
Developed by Gregory P. Hanley, Ph.D., BCBA-D
(Developed August 2002; Revised: August 2009 and February 2022)

Date of Interview: _____

Child/Client: _____ Respondent: _____
Respondent's relation to child/client: _____ Interviewer: _____

RELEVANT BACKGROUND INFORMATION

1. **His/her date of birth and current age: ____-_____-_____ ____yrs ____mos Male/Female**
2. **Describe his/her language abilities.**
3. **Describe his/her play skills and preferred toys or leisure activities.**
4. **What else does he/she prefer?**

QUESTIONS TO INFORM THE DESIGN OF A FUNCTIONAL ANALYSIS

To develop objective definitions of observable problem behaviors:

5. **What are the problem behaviors? What do they look like?**

To determine which problem behavior(s) will be targeted in the functional analysis:

6. **What is the single-most concerning problem behavior?**
7. **What are the top 3 most concerning problem behaviors? Are there other behaviors of concern?**

To determine the precautions required when conducting the functional analysis:

8. **Describe the range of intensities of the problem behaviors and the extent to which he/she or others may be hurt or injured from the problem behavior.**

To assist in identifying precursors to or behavioral indicators of dangerous problem behaviors that may be targeted in the functional analysis instead of more dangerous problem behaviors:

9. **Do the different types of problem behavior tend to occur in bursts or clusters and/or does any type of problem behavior typically precede another type of problem behavior (e.g., yells preceding hits)? Are there behaviors that seem to indicate that severe problem behavior is about to occur?**

To determine the antecedent conditions that may be incorporated into the functional analysis test conditions:

10. **Under what conditions or situations are the problem behaviors most likely to occur?**
11. **Do the problem behaviors reliably occur during any particular activities?**
12. **What seems to trigger the problem behavior?**
13. **Does problem behavior occur when you break routines or interrupt activities? If so, describe.**
14. **Does the problem behavior occur when it appears that he/she won't get his/her way? If so, describe the things that the child often attempts to control.**

To determine the test condition(s) that should be conducted and the specific type(s) of consequences that may be incorporated into the test condition(s):

15. **How do you and others react or respond to the problem behavior?**
16. **What do you and others do to calm him/her down once he/she engaged in the problem behavior?**
17. **What do you and others do to distract him/her from engaging in the problem behavior?**

In addition to the above information, to assist in developing a hunch as to why problem behavior is occurring and to assist in determining the test condition(s) to be conducted:

18. **What do you think he/she is trying to communicate with his/her problem behavior, if anything?**
19. **Do you think this problem behavior is a form of self stimulation? If so, what gives you that impression?**
20. **Why do you think he/she is engaging in the problem behavior?**

To ensure that the analytic context is properly designed for developing the most important skill branches.

21. **Besides communication, toleration, and cooperation,**
    a. **What skills would make this child/client's life better/more joyful?**
    b. **What are the three most useful things the child/client could be taught to do?**
    c. **What skills, if this child/client had them, would make your life or the lives of other close caregivers better?**

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Interview Informed Synthesized Contingency Analysis (IISCA)

- Design the IISCA
- Reinforcement context and an Establishing Operation (EO) context
- Run the analysis
- Establish HRE for 5 minutes
- Alternate contexts until control is established

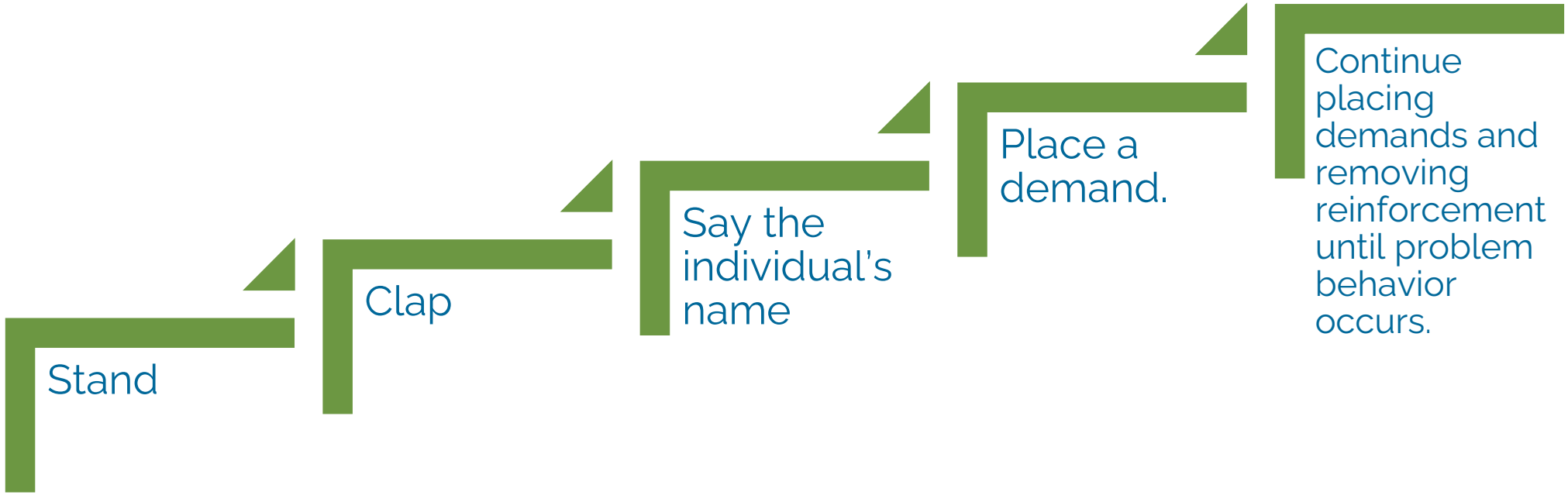
Reinforcement Context

- Synthesized reinforcement context
- Includes the individual's preferred items and activities (this information should be obtained during the interview)
- No demands
- Once the individual is happy, relaxed and engaged (HRE) in the reinforcement context for at least 30 seconds, begin the EO progression.

EO Context

- Consists of the skills identified for teaching
- Should be presented as a progression
- Often includes
  - Relinquishing of the reinforcers
  - Transitioning to a separate space or location
  - Completing a task

EO Progression



As soon as problem behavior (or precursors) occur, immediately do the following:

- Remove all demands;
- Return access to all reinforcers;
- Return to seated/relaxed state

Ending the Analysis

- After the behavior has been quickly turned off and the learner returns to HRE, 5 times, the analysis is complete.
- Anyone can end the analysis at any time (the learner, the implementor, caregivers, observers, etc.)
- After ending the analysis, complete the Reflections section and Summary statements of the workbook

(Hanley, 2023)

Ending the Analysis

Reflections on the relative success of the analysis	
Was it safe?	
Was it televisable ?	
Did your rapport with the child expand or contract?	
Did the child remain in the room or create their own analysis space?	
Was the child happy, relaxed, and engaged for extended periods?	
Was problem behavior evoked some of the time during the EO progression?	
Was it turned off all of the time with the delivery of reinforcement?	
Did the child quickly return to HRE within 10 seconds of the delivery of the synthesized reinforcement?	
Did the problem behavior either start out as non-dangerous or did it reduce in intensity to non-dangerous response types?	
Additional responses:	
Summary statements	
What appeared to evoke problem behavior? Was the PB reliably evoked at a particular point in the EO progression. If so, note it here.	
What are the likely reinforcers for problem behavior?	

What are the two contexts used during the IISCA?

A. Play and Tangible
B. Together and Apart
C. Reinforcement and EO
D. Loud and quiet
E. None of the above

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A. Play and Tangible

B. Together and Apart

C. Reinforcement and EO

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Video Example

(Modsquad, 2024)

IISCA Data Sheet-*Performance-Based Criteria* (March 3, 2019) Child/Client Name: _____ Analyst: _____ Implementor:_____ Consultant:_____

R1s:

R2s:

% engagement: _____

% of PBs in EO: _____

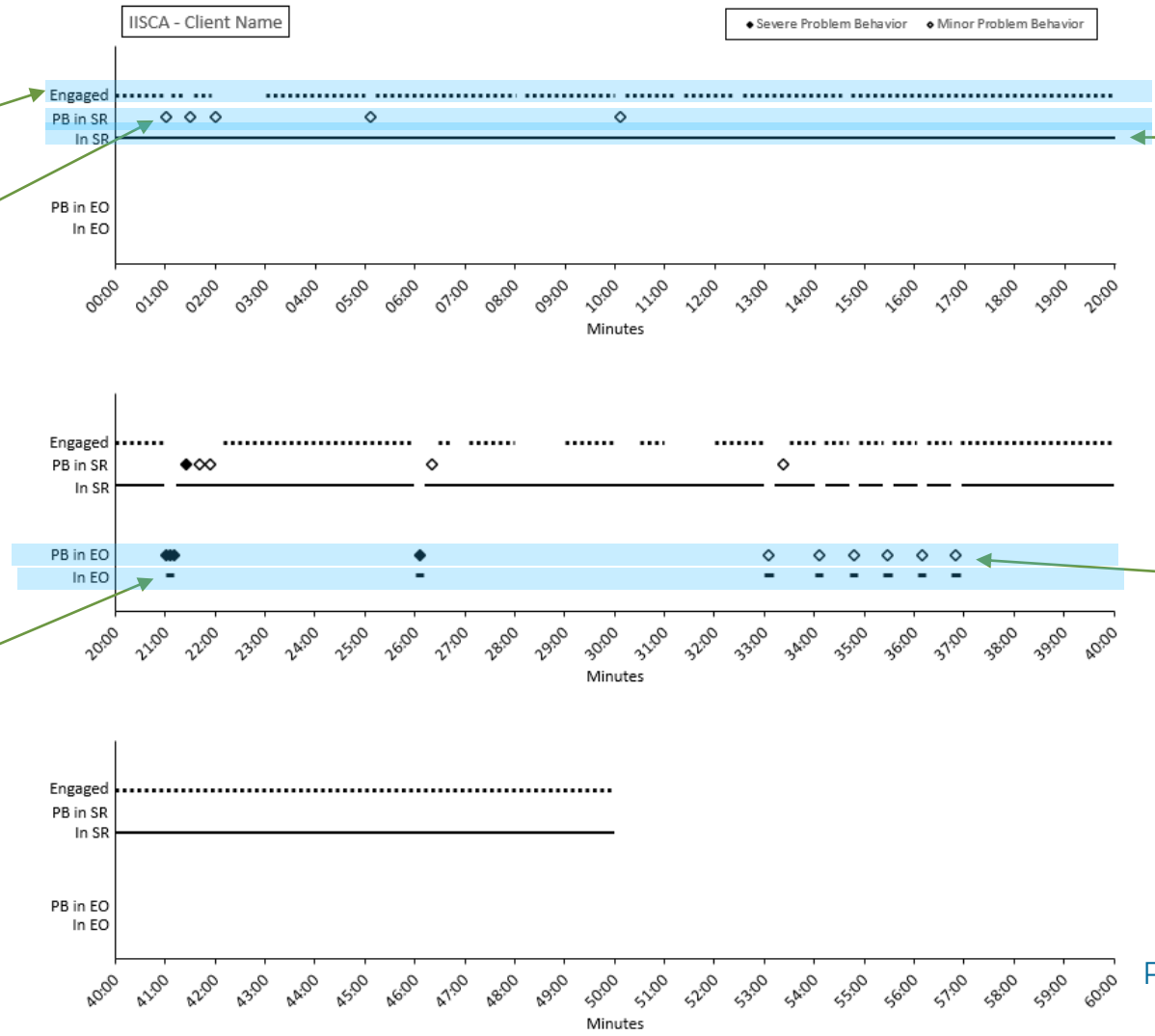
Minute		**0**		**1**		**2**		**3**		**4**		**5**		**6**		**7**		**8**		**9**		**10**		**11**		**12**		**13**		**14**		**15**		**16**		**17**	
Second		0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*	0-30	*31-59*
If in EO	R1																																				
	R2																																				
EO Line																																					
SR Line																																					
If in SR	R2																																				
	R1																																				
HRE																																					

IISCA Graph Example

Indicates HRE

Problem bx occurring in the reinforcement context (SR)

Time in EO context



Time in reinforcement context

Problem bx occurring in EO context

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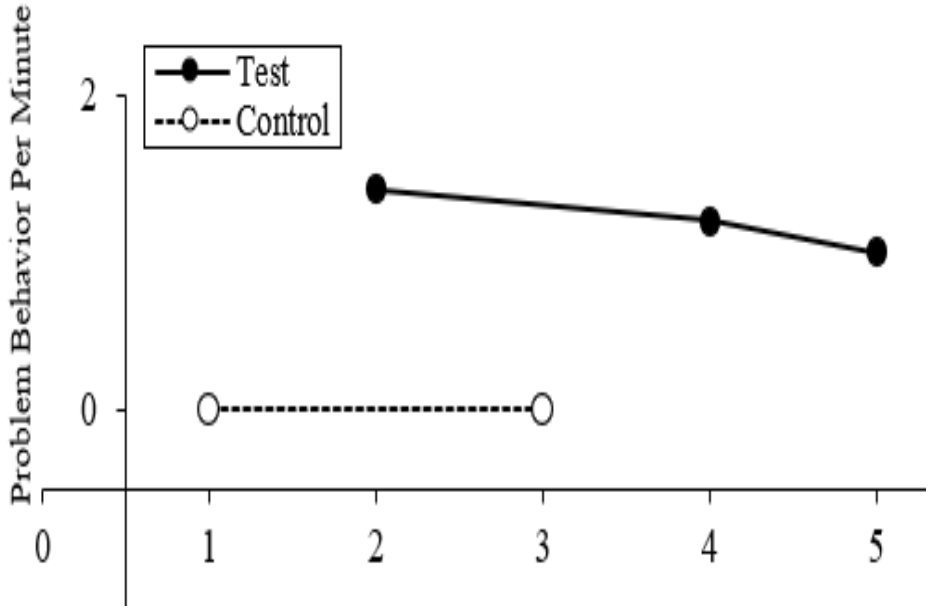
Example of an IISCA Data Sheet with Aggregate Graph

Session 1	CONTROL		*Session 2* TEST				*Session 3* CONTROL		*Session 4* TEST				*Session 5* TEST			
1st min	R1	R2	R1: EO	SR	R2: EO	SR	R1	R2	R1: EO	SR	R2: EO	SR	R1: EO	SR	R2: EO	SR
1-10					X											
11-20																
21-30											X					
31-40															X	
41-50					X											
51-1:00											X					
2nd min	R1	R2	R1: EO	SR	R2: EO	SR	R1	R2	R1: EO	SR	R2: EO	SR	R1: EO	SR	R2: EO	SR
1:01-1:10																
1:11- 1:20																
1:21- 1:30																
1:31-1:40					X						X				X	
1:41-1:50																
1:51-2:00																
3rd min	R1	R2	R1: EO	SR	R2: EO	SR	R1	R2	R1: EO	SR	R2: EO	SR	R1: EO	SR	R2: EO	SR
2:01-2:10																
2:11- 2:20					X											
2:21-2:30																
2:31-2:40											X					
2:41-2:50															X	
2:51-3:00					X											
4th min	R1	R2	R1: EO	SR	R2: EO	SR	R1	R2	R1: EO	SR	R2: EO	SR	R1: EO	SR	R2: EO	SR
3:01-3:10																
3:11- 3:20																
3:21-3:30																
3:31-3:40											X				X	
3:41-3:50																
3:51-4:00					X											
5th min	R1	R2	R1: EO	SR	R2: EO	SR	R1	R2	R1: EO	SR	R2: EO	SR	R1: EO	SR	R2: EO	SR
4:01-4:10																
4:11-4:20																
4:21-4:30					X											
4:31-4:40															X	
4:41-4:50																
4:51-5:00											X					



What does it look like with Adults?

The process is the same

Longer learning history

Reinforcers look different

Resources for Further Training and Information

- FTF website- https://ftfbc.com/
- Practical Functional Assessment Website- https://practicalfunctionalassessment.com/
- PFA and SBT Community Website- https://www.pfasbtcommunity.com/
- Upstate Caring Partners YouTube channel - https://www.youtube.com/@upstatecaringpartners

Resources

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