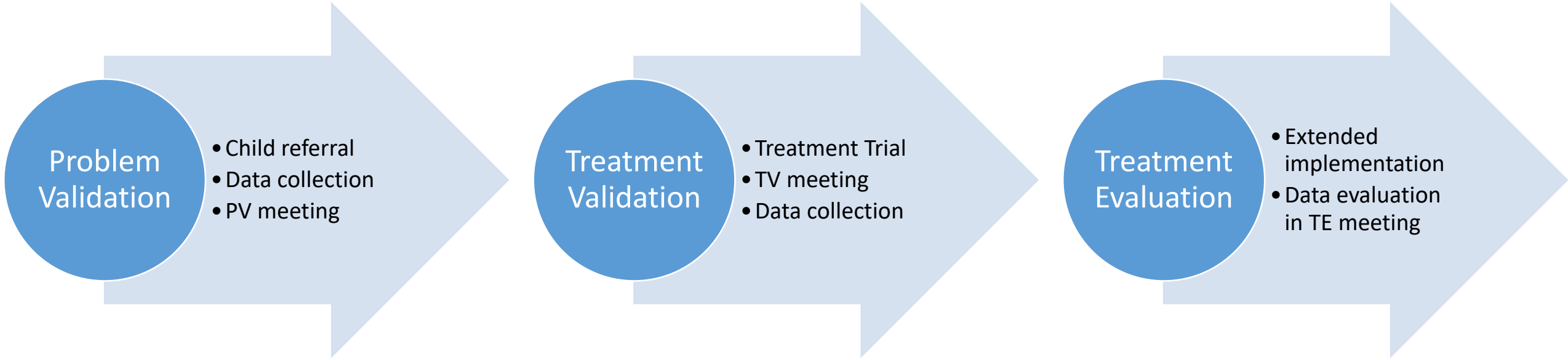
Functional Assessment Consultation Support in Schools

Edward J. Daly III, BCBA-D

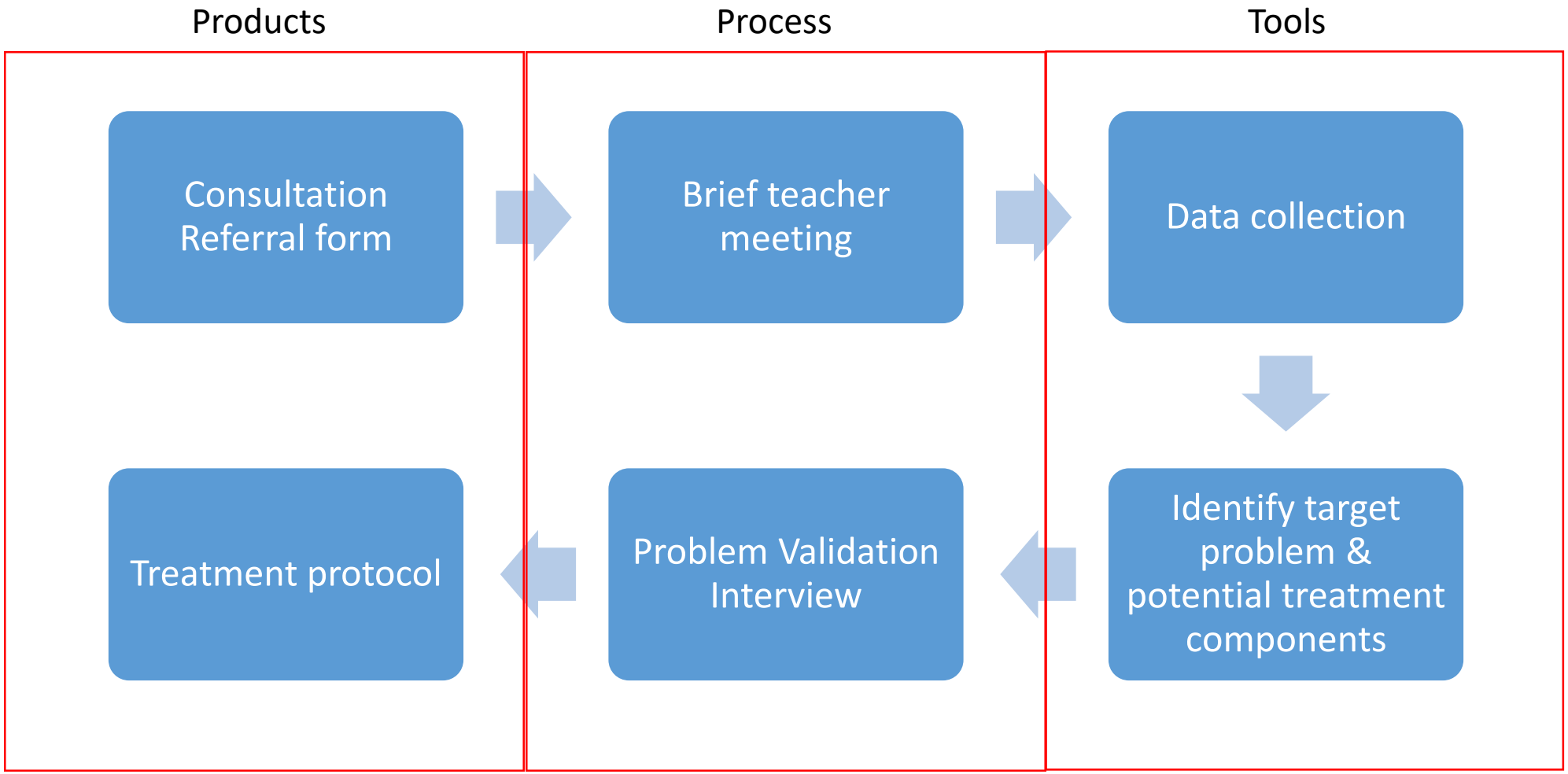
University of Nebraska-Lincoln

Download handout and materials before the presentation:
https://unl.box.com/s/5e4sbqfdemr3unxvz5mhbyz6jl7gqyf0

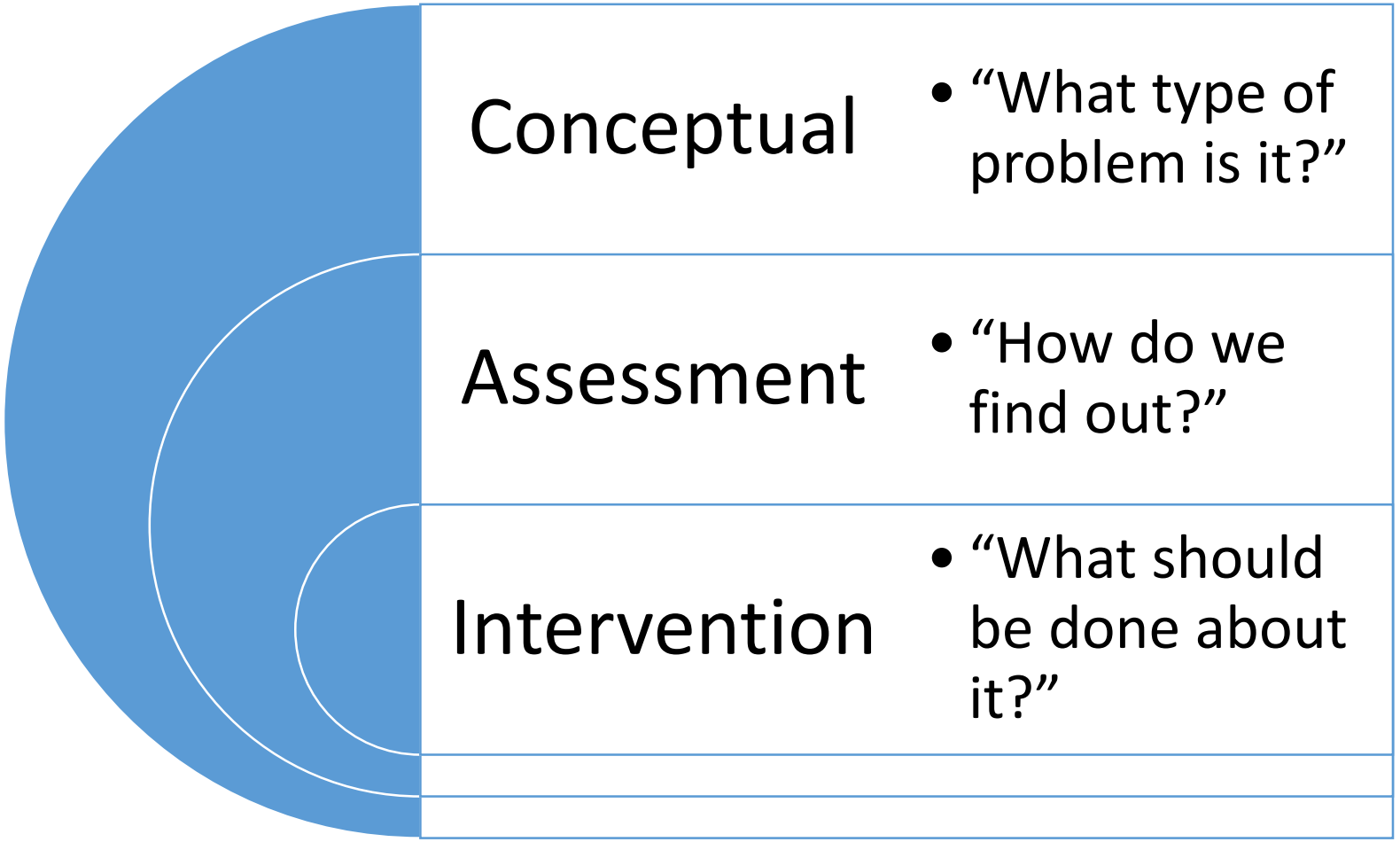
Process: FACS Consultation Stages



Problem Validation Steps



Our Tools Help Us Answer Questions…



Referral

Consultation Referral Form

- Demographic data
- Schedule
- Problem description
- Desired behavior
- Work samples request
- Reward survey

Brief Teacher Interview

- Clarifying questions
- Review goals
- Role clarification
- Confidentiality
- Confirm teacher participation

Data Collection

- Work samples
- Basic skills
- Observational data
- Preference assessment
- Performance-Deficit Analysis

“What type of problem is it?” Two Tasks…

Target Behavior Selection

“What does the behavior look like?” (topography)

Treatment Selection

“Why is it occurring?” (function)

and…

“What do we do about it?” (treatment)

“What type of problem is it?” Two Tasks…

Target Behavior Selection

Objectives:

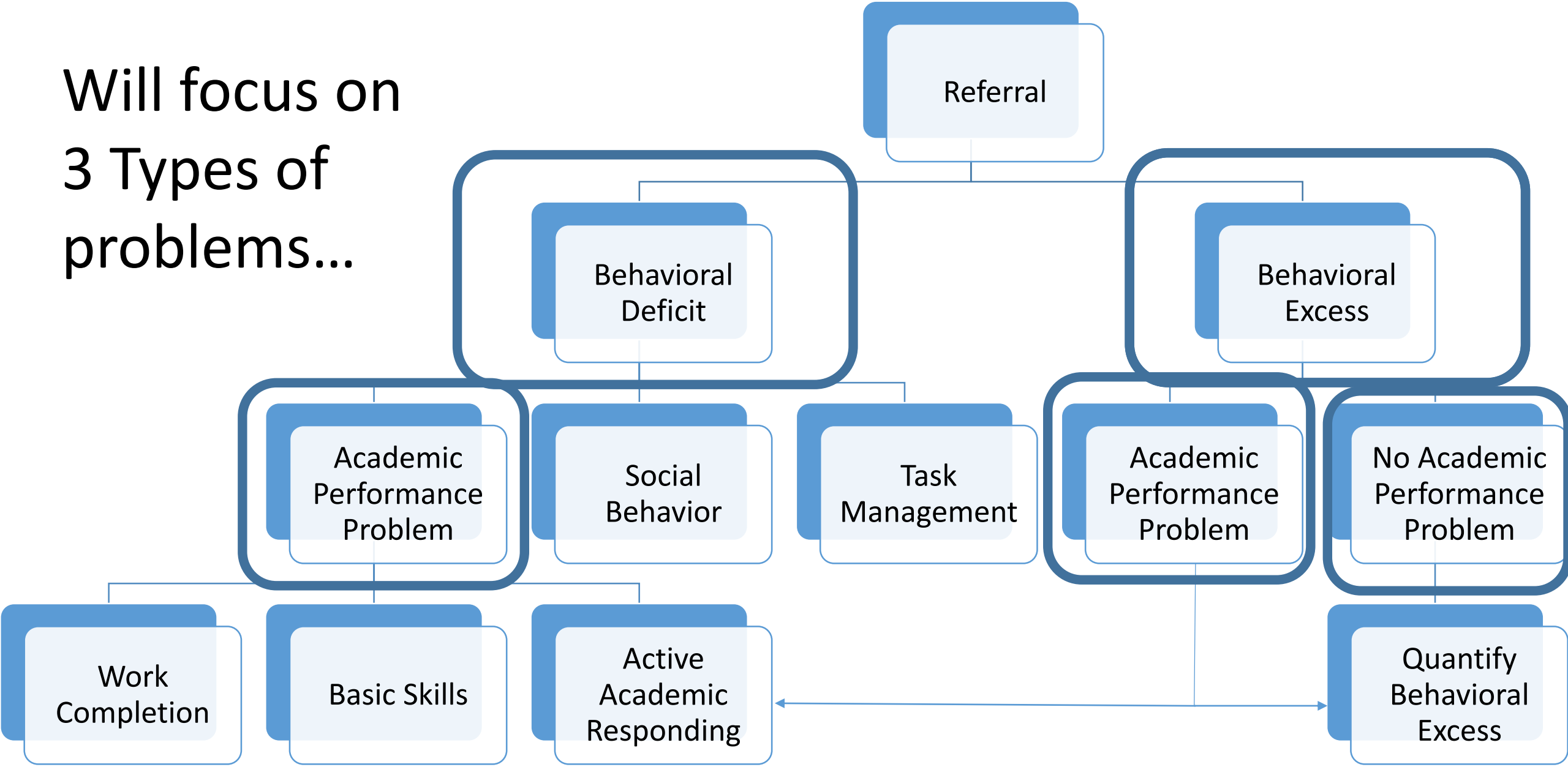
1. Establish agreement with the teacher
2. Establish a baseline for progress-monitoring purposes

Treatment Selection

Objectives:

1. Select potential treatment components
2. Establish an agreed-upon plan with the teacher
3. Written treatment protocol

Will focus on 3 Types of problems…



Prioritizing Target Behaviors

Work Completion

- Relates directly to current instructional objectives
- Efficient and simple, possibly a lot more data…
- Incompatible with disruptive/off-task behavior

Basic Skills

- Addresses deficits in prerequisite skills
- Reduces task difficulty
- Incompatible with disruptive/off-task behavior
- May not relate well to planned instructional objectives

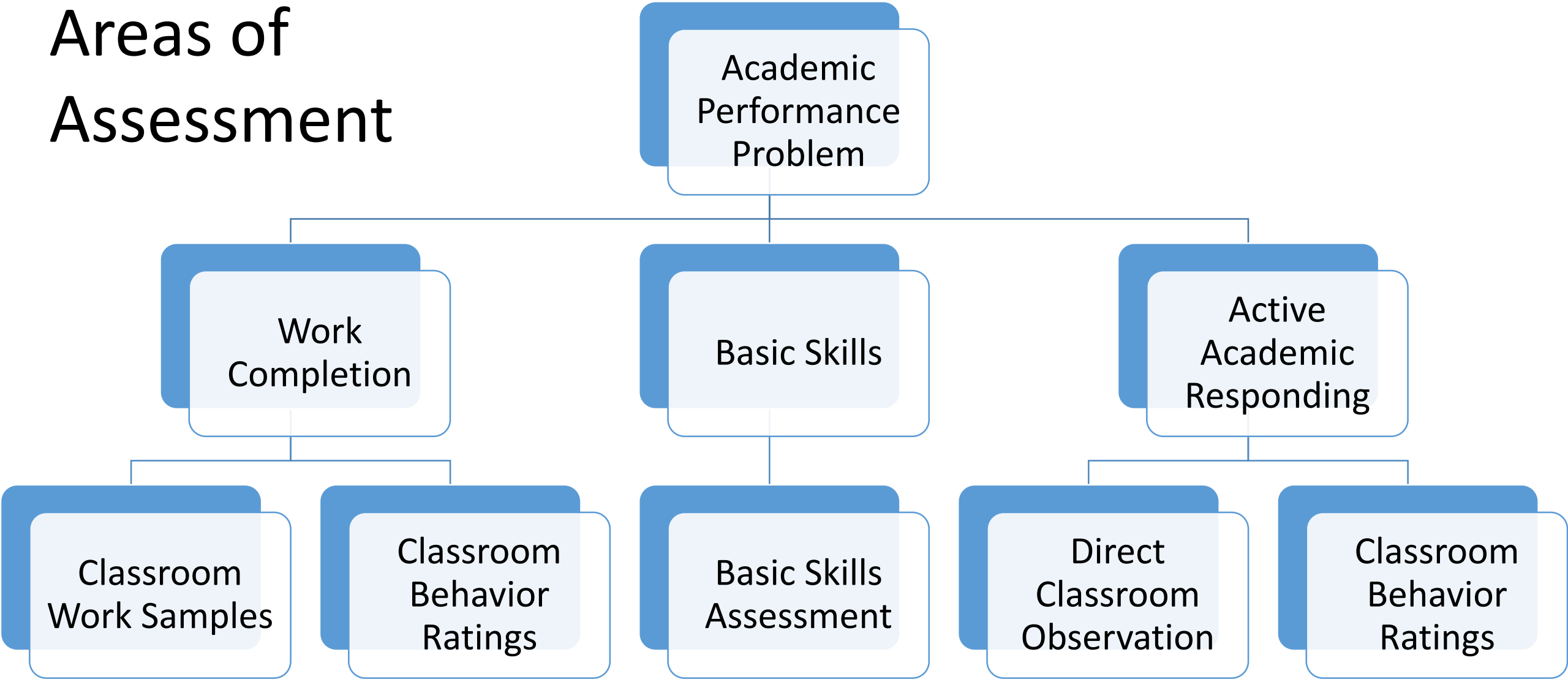
Active Academic Responding

- Good predictor of academic achievement
- Incompatible with disruptive/off-task behavior
- Requires an observer

Problem Behavior (Excess)

- May be chief priority if it creates an unsafe environment
- Requires an observer
- Does not guarantee skill improvement

Areas of Assessment



Classroom Work Samples (Permanent Products)

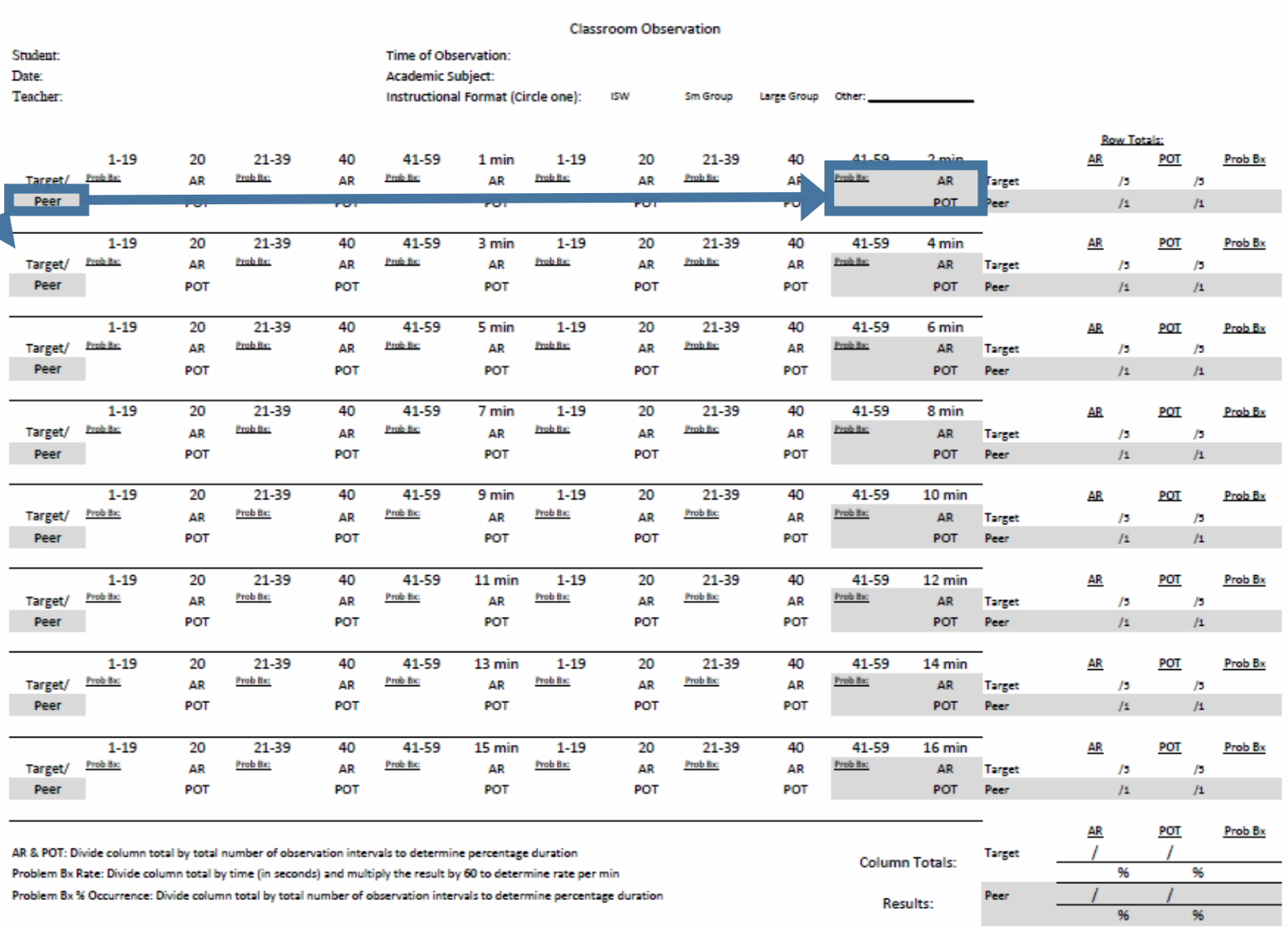
- Is this feasible?
  - Does the teacher devote a consistent amount of time to a particular instructional activity that produces a written product?
  - Is the teacher willing to standardize this time for measurement purposes?
  - Are instructional items (e.g., math problems, comprehension questions) largely consistent from one occasion to the next?
    - Controls for difficulty level and problem type
    - Ask to look at existing permanent products to verify directly
  - Is the instructional material relevant to solving the problem?
  - If "Yes," then you can use classroom work samples for progress monitoring
- Examples
  - Percentage completed per session (number completed/number assigned)
  - Percentage correct per session (number correct/number completed)
  - Number correct per session (frequency) or rate
    - Math problems or digits
    - Written words or letters

Basic Skills Assessments

- CBM Oral Reading Fluency
- CBM Written Expression
  - Total Words Written
  - Words Spelled Correctly
  - Correct Word Sequences
- CBM Math Computation
  - Mastered, and
  - Not yet mastered
- Aimsweb® or DIBELS ®

Direct Classroom Observation

- Academic Responding & Passive On-Task
  - MTS (20-s)
  - % of intervals
- Problem Behavior
  - Frequency or rate
  - % of intervals (PIR 19-s)
  - Tailor definition to case
- Peer observed concurrently



Classroom Observation

Student:
Date:
Teacher:

Time of Observation:
Academic Subject:
Instructional Format (Circle one): ISW Sm Group Large Group Other: _____

	1-19	20	21-39	40	41-59	1 min	1-19	20	21-39	40	41-59	2 min	Row Totals:	AR	POT	Prob Bx
Target/ Peer	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Target	/5	/5	
													Peer	/1	/1	
	1-19	20	21-39	40	41-59	3 min	1-19	20	21-39	40	41-59	4 min		AR	POT	Prob Bx
Target/ Peer	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Target	/5	/5	
													Peer	/1	/1	
	1-19	20	21-39	40	41-59	5 min	1-19	20	21-39	40	41-59	6 min		AR	POT	Prob Bx
Target/ Peer	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Target	/5	/5	
													Peer	/1	/1	
	1-19	20	21-39	40	41-59	7 min	1-19	20	21-39	40	41-59	8 min		AR	POT	Prob Bx
Target/ Peer	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Target	/5	/5	
													Peer	/1	/1	
	1-19	20	21-39	40	41-59	9 min	1-19	20	21-39	40	41-59	10 min		AR	POT	Prob Bx
Target/ Peer	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Target	/5	/5	
													Peer	/1	/1	
	1-19	20	21-39	40	41-59	11 min	1-19	20	21-39	40	41-59	12 min		AR	POT	Prob Bx
Target/ Peer	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Target	/5	/5	
													Peer	/1	/1	
	1-19	20	21-39	40	41-59	13 min	1-19	20	21-39	40	41-59	14 min		AR	POT	Prob Bx
Target/ Peer	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Target	/5	/5	
													Peer	/1	/1	
	1-19	20	21-39	40	41-59	15 min	1-19	20	21-39	40	41-59	16 min		AR	POT	Prob Bx
Target/ Peer	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Prob Bx:	AR POT	Target	/5	/5	
													Peer	/1	/1	

AR & POT: Divide column total by total number of observation intervals to determine percentage duration
Problem Bx Rate: Divide column total by time (in seconds) and multiply the result by 60 to determine rate per min
Problem Bx % Occurrence: Divide column total by total number of observation intervals to determine percentage duration

		AR	POT	Prob Bx
Column Totals:	Target	/	/	
		%	%	
Results:	Peer	/	/	
		%	%	

Cueing Tools

MotivAider® For Mobile

View More by This Developer

By Behavioral Dynamics, Inc.

This app is only available on the App Store for iOS devices.

MotivAider FOR MOBILE

$2.99

Category: Productivity
Released: Oct 17, 2012
Version: 1.0
Size: 0.7 MB
Language: English
Seller: Behavioral Dynamics, Inc.
© 2012 Behavioral Dynamics, Inc.
Rated 4+

Compatibility: Requires iOS 3.0 or later. Compatible with iPhone, iPad, and iPod touch.

Customer Ratings

Current Version:
★★½ 18 Ratings

Description

MotivAider® For Mobile helps iPhone users make virtually any desired change in their own behavior and habits using a simple behavioral change method that's been perfected over the course of over three decades. Please see a brief video demo at http://youtu.be/uhXltbSO3yk)

Behavioral Dynamics, Inc. Web Site › MotivAider® For Mobile Support › ...More

iPhone Screenshots

Interval Timer:Timing for HIIT Training, Workouts

View More by This Developer

By Deltaworks

This app is only available on the App Store for iOS devices.

This app is designed for both iPhone and iPad

Free

Category: Health & Fitness
Updated: Aug 16, 2017

Description

***Free and reliable. Perfect for use at home, at the track or in the gym.

We're proud to introduce this handy little app that helps you keep track of your work and rest periods during

Interval Timer:Timing for HIIT Training, Workouts Support › ...More

What's New in Version 4.0.0

- Add start/stop button in landscape mode
- UI/UX enhancements
- Minor bug fixes

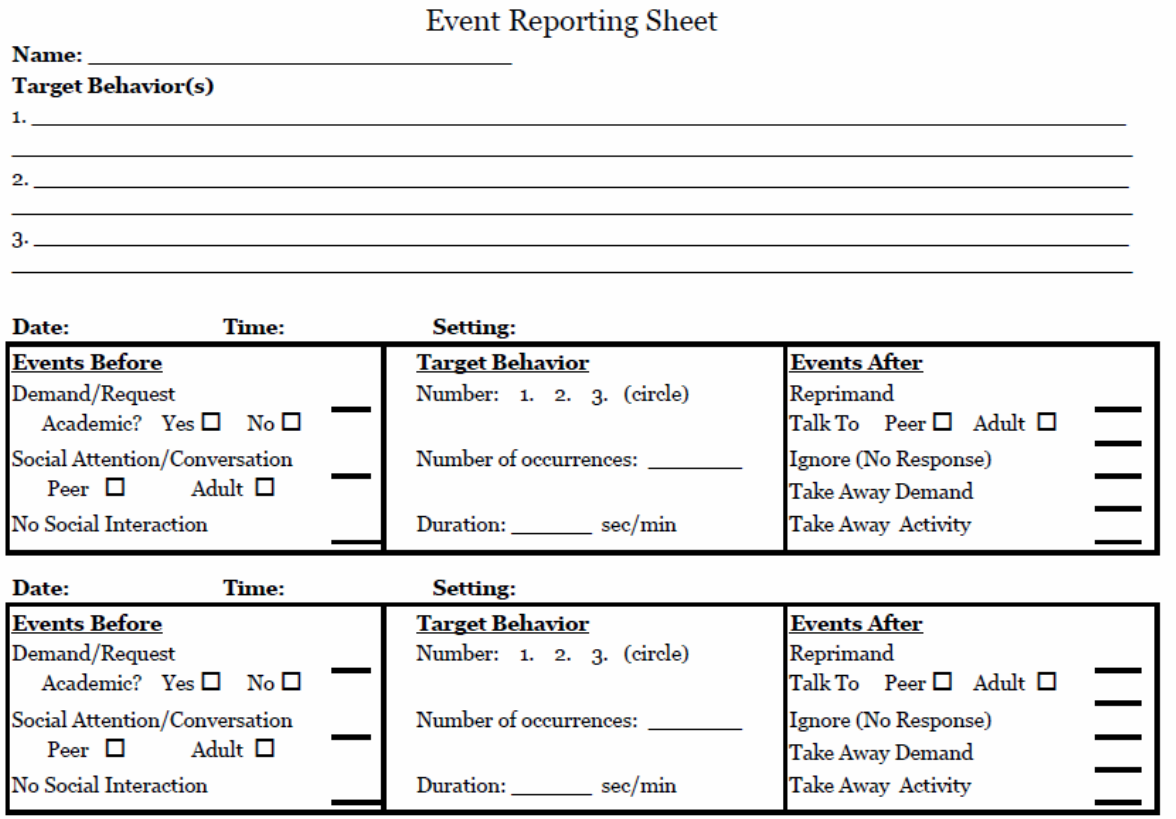
Observing Instruction to Identify a Possible Instructional and/or Contingency Mismatch

- Were clear instructions given to the student about…
  - What to do, and how to respond correctly?
  - What happened when he or she was done with the task?
- Was guided practice used?
  - Clear instructions, modeling, feedback, and error correction for every response
- Was the student expected to practice independently?
  - If so, did the student have a high or low error rate? Is the task too difficult?
- Were there any “positive” consequences for finishing the work?
- Was attention delivered for misbehavior?
  - If yes, was it proportionally greater or lesser than attention for appropriate behavior?
- Did the task or response demands appear to be aversive in any way? How?
- Was the task removed if the student misbehaved? (possible escape function)
- Was the student redirected to the task if he or she misbehaved or was off task?
- How accurate was the student with the assigned task at the end?

Teacher Data Collection

Classroom Behavior Ratings

Event Reporting Sheet



Event Reporting Sheet

Name: _____

Target Behavior(s)

1. _____

_____

2. _____

_____

3. _____

_____

Date: **Time:** **Setting:**

Events Before	**Target Behavior**	**Events After**
Demand/Request Academic? Yes ☐ No ☐	Number: 1. 2. 3. (circle)	Reprimand Talk To Peer ☐ Adult ☐
Social Attention/Conversation Peer ☐ Adult ☐	Number of occurrences: _____	Ignore (No Response) Take Away Demand
No Social Interaction	Duration: _____ sec/min	Take Away Activity

Date: **Time:** **Setting:**

Events Before	**Target Behavior**	**Events After**
Demand/Request Academic? Yes ☐ No ☐	Number: 1. 2. 3. (circle)	Reprimand Talk To Peer ☐ Adult ☐
Social Attention/Conversation Peer ☐ Adult ☐	Number of occurrences: _____	Ignore (No Response) Take Away Demand
No Social Interaction	Duration: _____ sec/min	Take Away Activity

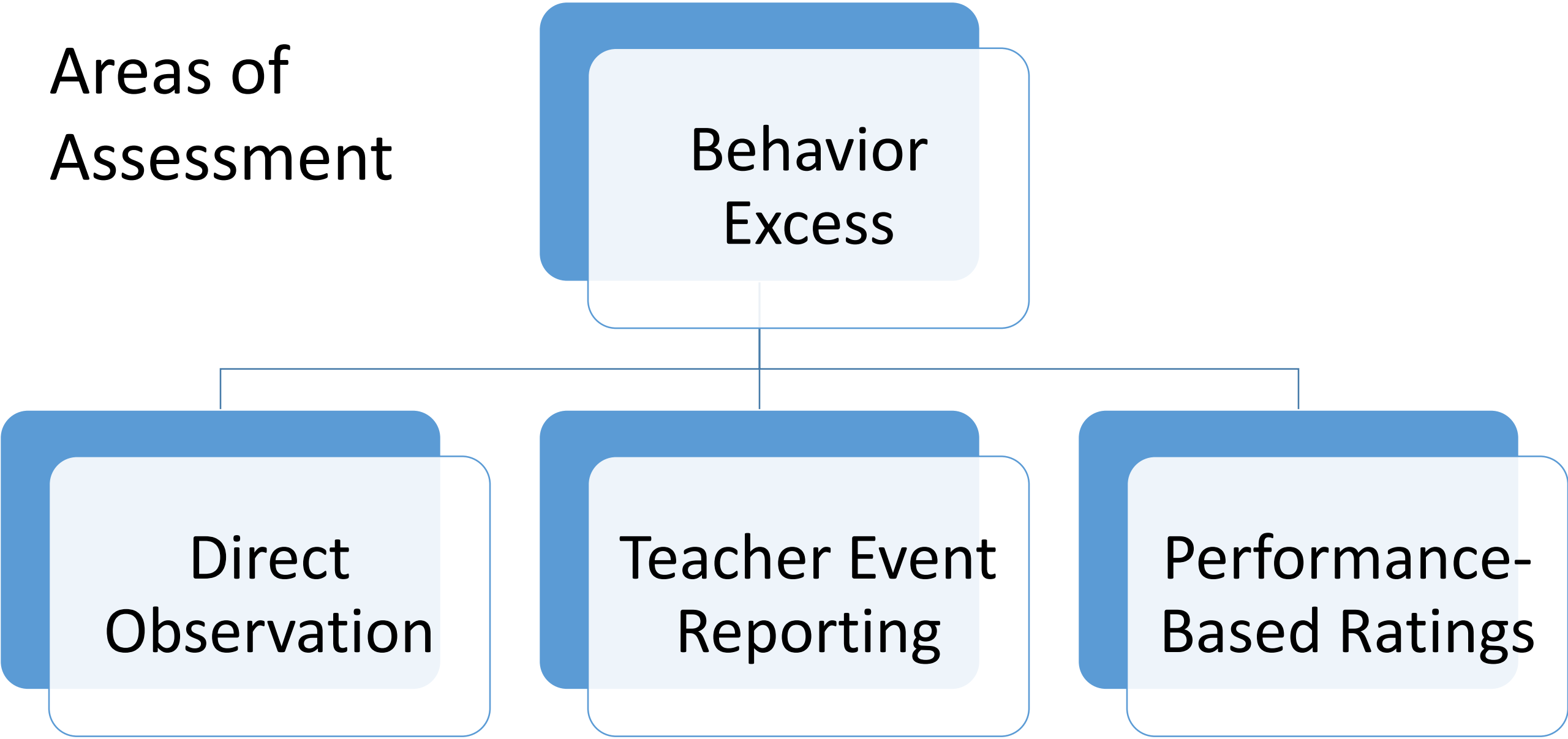
- Gather frequency or duration (per episode) data
- Facilitate data collection by specifying target behaviors in advance
- Gather A-B-C data and calculate conditional probabilities
  - Social attention
  - Demands (academic or not)

Classroom Behavior Ratings

Performance-Based Rating Sheet

- Performance-based ratings (estimates) of work completion, disruptive behavior, non-disruptive off-task behavior
- Problem too infrequent for consultant to see
- Consultant unavailable to assist with observations
- Can supplement direct observational data

Areas of Assessment



“What type of problem is it?” Two Tasks…

Target Behavior Selection

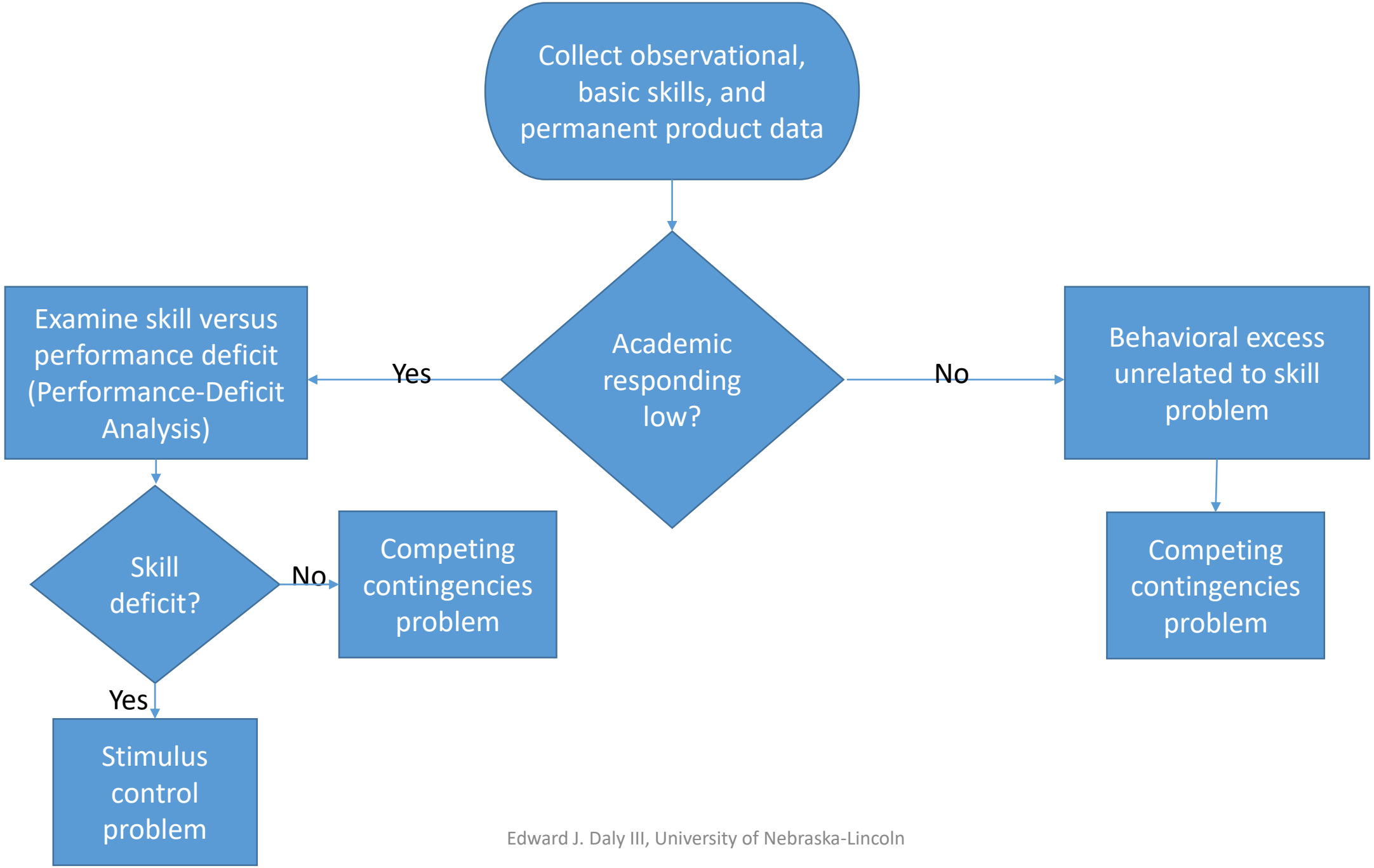
“What does the behavior look like?” (topography)

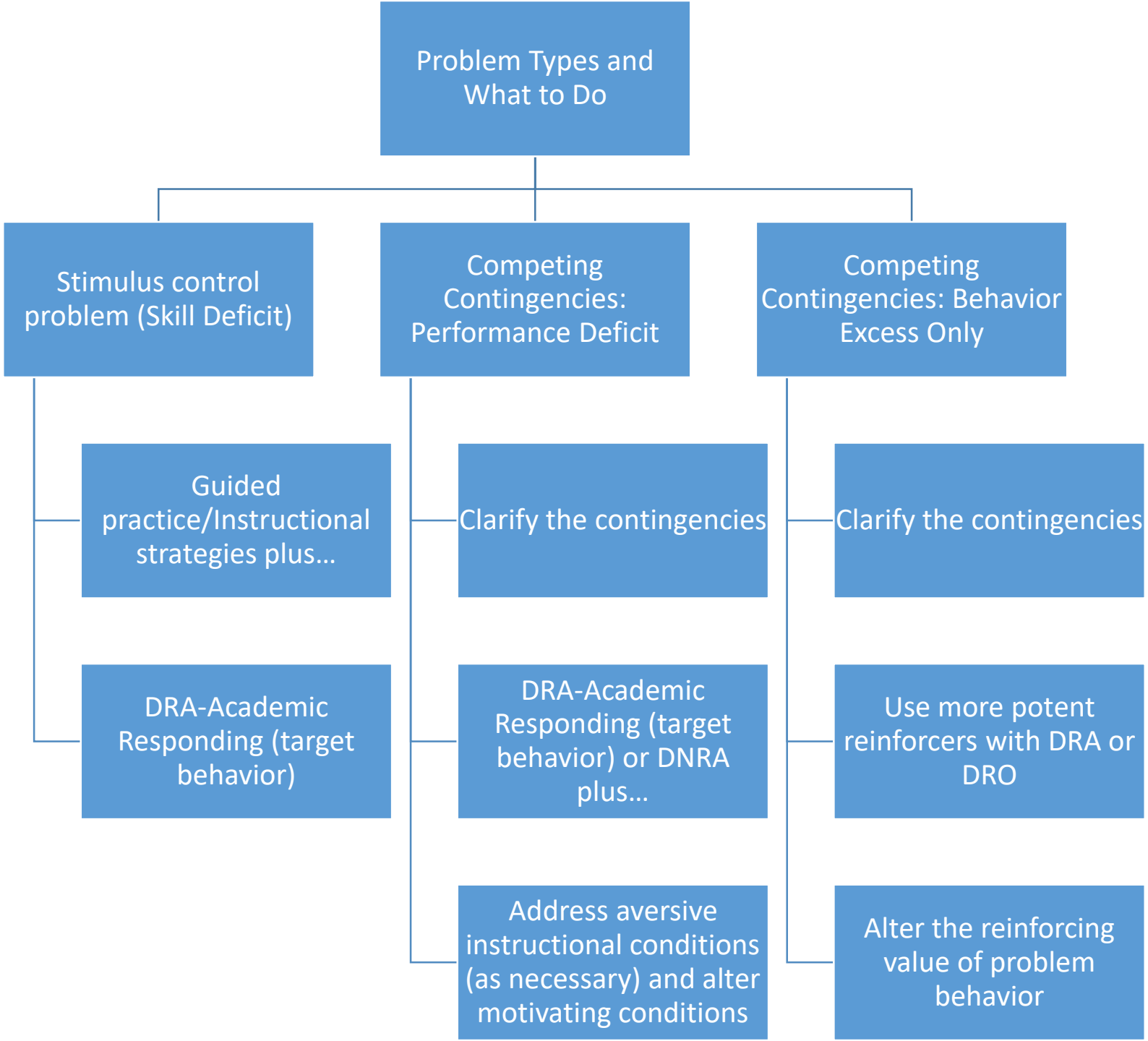
Treatment Selection

“Why is it occurring?” (function)

and…

“What do we do about it?” (treatment)


Collect observational, basic skills, and permanent product data
Academic responding low?
Yes
No
Examine skill versus performance deficit (Performance-Deficit Analysis)
Skill deficit?
No
Competing contingencies problem
Yes
Stimulus control problem
Behavioral excess unrelated to skill problem
Competing contingencies problem


Problem Types and What to Do
Stimulus control problem (Skill Deficit)
Competing Contingencies: Performance Deficit
Competing Contingencies: Behavior Excess Only
Guided practice/Instructional strategies plus…
DRA-Academic Responding (target behavior)
Clarify the contingencies
DRA-Academic Responding (target behavior) or DNRA plus…
Address aversive instructional conditions (as necessary) and alter motivating conditions
Clarify the contingencies
Use more potent reinforcers with DRA or DRO
Alter the reinforcing value of problem behavior

Guided Practice

- Clear instructions
- Modeling with initial items
- Supervised practice with next few items
- Performance feedback on a dense FR schedule
  - Praise,
  - Error Correction
- Contingent access to desirable consequences if possible, or use a token system if contingent access must be delayed
- Assure a high level of accuracy before independent practice

The Instructional Hierarchy: Adapting Instruction to Skill Level

Accuracy

- Modeling,
- Prompt delay (constant, progressive, regressive),
- Error correction,
- FR1 feedback,
- Teach items in isolation (e.g., flashcards)

Fluency

- Repeated practice,
- Contingent reinforcement for improved rate of responding (“beating their last score”),
- Performance feedback for accuracy and rate (graph performance)

Generalization

- Practice with a variety of items using examples and non-examples, intersperse different types of items,
- Practice in natural context with salient “cues” and fade cues
- Reinforce instances of generalization following practice,
- Incorporating common stimuli,
- Make skill use useful and motivating

(Haring, Lovitt, Eaton, & Hansen, 1978)

Addressing Aversive Instructional Conditions

- Heading off task avoidance
  - Reduce task difficulty level
    - Step back to lower level in curriculum (e.g., move down from 2nd grade to 1st grade materials)
    - Slice back to easier version of the skill (e.g., going back to multiplication tables to 5)
    - Have the student work on problems in isolation
    - Guided Practice (modeling + practice + feedback/error correction)
    - Reduce difficulty level of response demands (e.g., allow the student to write answers on computer rather than by hand)
  - Offer choices: Tasks, response format (e.g., computer v. hand-written), and/or rewards
  - Reduce aversiveness of demands (e.g., intersperse easy items) and/or response effort (reduce writing demands by starting with verbal responding prior to writing)
  - Promise and give breaks for academic responding (Differential Negative Reinforcement of Appropriate behavior)

Here’s how we figure it out

Preference Assessment and Performance-Deficit Analysis

Edward J. Daly III, University of Nebraska-Lincoln

Preference Assessment

Multiple Stimulus Without Replacement Method

Edward J. Daly III, University of Nebraska-Lincoln

Materials

- Stimulus/reinforcer teacher survey
  - Consists of 3 stimulus classes:
    - Activities/Privileges
    - Tangibles
    - Edibles

- Edible and tangible items approved by teacher as possible reinforcers
  - Stickers, candy, small toys, pencils

- Index cards with pictures for non-tangible, non-edible items
  - Computer time, gym time, line leader, etc.

- Recording sheet

The Recording Sheet

Student_____ Date_____ Evaluator _____

Multiple-Stimulus Preference Assessment (Without Replacement) 1 = first chosen; 8 = last stimulus

	Edibles	Array	1	2	3	4	5	6	7	8
Date: ___		1								
Date: ___		2								
Date: ___		3								

Rank Order Score: _____ _____ _____ _____ _____ _____ _____ _____

	Tangibles	Array	1	2	3	4	5	6	7	8
Date: ___		1								
Date: ___		2								
Date: ___		3								

Rank Order Score: _____ _____ _____ _____ _____ _____ _____ _____

	Activity/Priv.	Array	1	2	3	4	5	6	7	8
Date: ___		1								
Date: ___		2								
Date: ___		3								

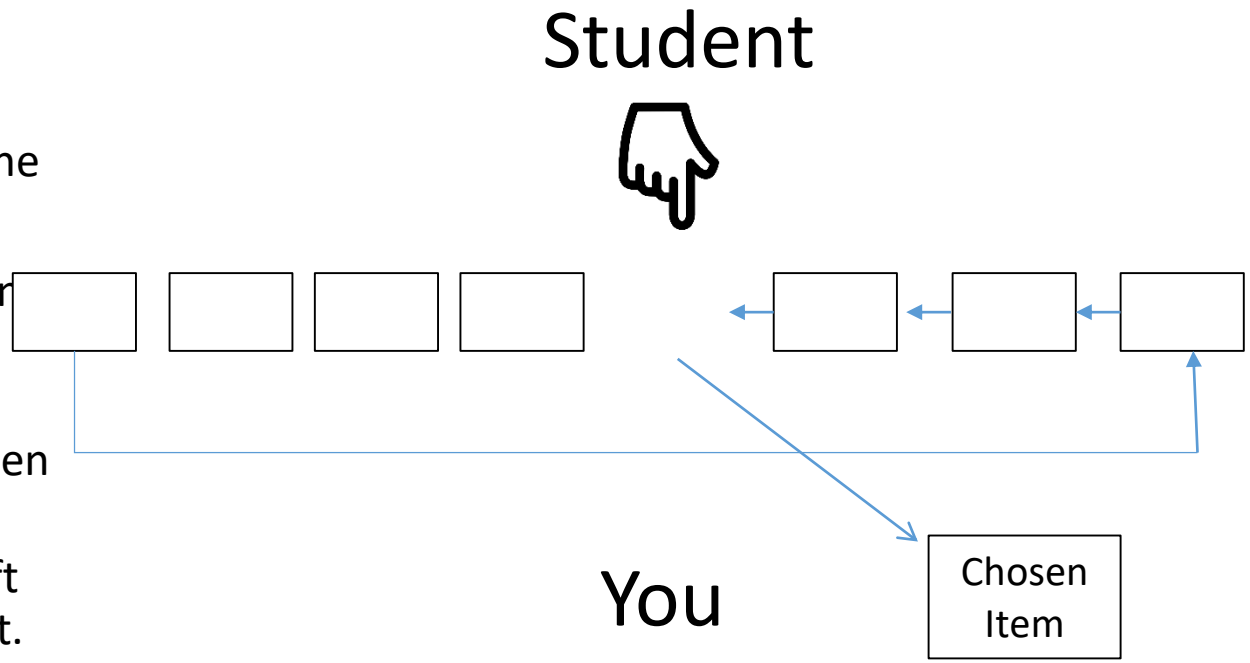
Rank Order Score: _____ _____ _____ _____ _____ _____ _____ _____

Preparation

1. Refer to Consultation Referral Form for teacher-approved items
2. Select 8 items
3. Create cards for activity items

Sessions

1. Place the cards/items in front of the participant, name each item, and ensure the participant understands what each card represents
2. Have the participant choose one item he/she would be willing to work for
3. Remove the chosen item or allow participar to eat edible item and reposition the remaining items:
    1. Shift all items to the right of the chosen item to the left to fill the gap.
    2. Shift the item furthermost to your left to the place furthermost to your right.
    3. Reposition the array to be centered in front of the participant.
4. Continue until all items are selected, marking the recording sheet with the order each item was selected (i.e., 1 to 8).
5. Repeat steps 1-4 two more times (preferably on different days) with the same items in a random order.



Scoring and Analyzing Results

1. Circle the median score (1 to 8) on the recording sheet across the three sessions for each stimulus class.
2. Rank ordering is reverse scored: The lower the selection score (e.g., “1”), the higher the ranking (e.g., “8”) for graphing purposes.
3. Use the average ranking for ties.

1 = First chosen; 8 = Last chosen

	Array	Gym	Computer	Free Time	Draw	Music	Library	Puzzle	Magazine
Date: 2/6	1	(4)	(5)	1	6	(2)	(3)	(8)	(7)
Date: 2/7	2	6	4	(2)	(5)	3	1	8	7
Date: 2/8	3	4	6	2	5	1	3	7	8
Rank Ordering:		5	3.5	7.5	3.5	7.5	6	1	2

Plot the Results

Plot rank orderings, color coding low, medium, and high preference

- High preference = 7-8
- Medium Preference = 3-6
- Low preference = 1-2

Performance-Deficit Analysis

Performance-Deficit Analysis for Classroom Assignments

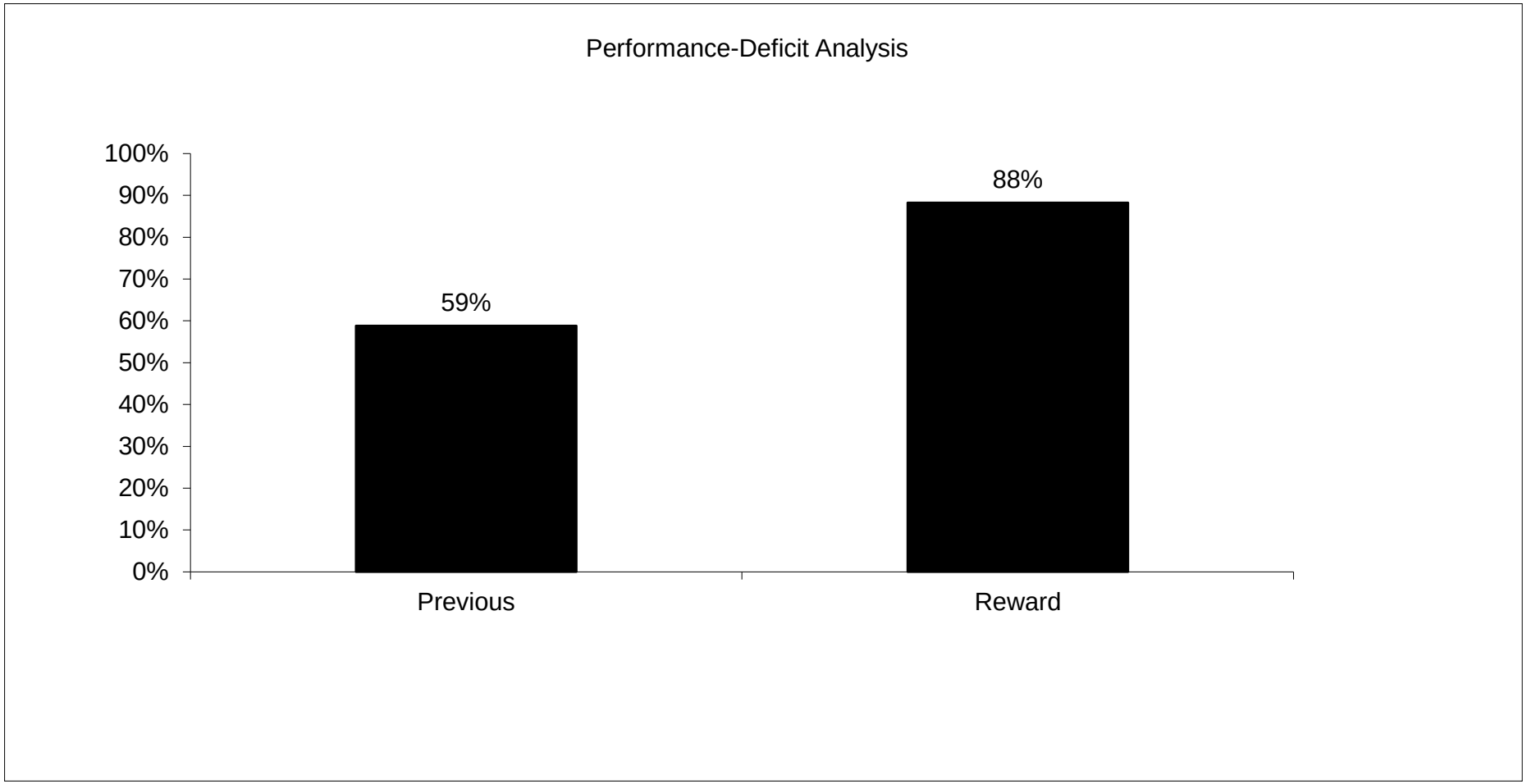
Reinforcer Validation protocols

Edward J. Daly III, University of Nebraska-Lincoln

Performance-Deficit Analysis for Classroom Assignments

- Obtain a previously failed assignment from the teacher
- Identify high-preference consequences
- Use a criterion of 1.5 X the previous failed score (placed on an index card)
- Present the mystery criterion (index card with criterion score facing down)
- Give task directions and instruct student to begin
- Calculate score when completed or time is up
- Reveal criterion score and administer contingencies accordingly

Performance-Deficit Analysis Example



Criterion = 88.5%

Reinforcer Validation Protocols

Skills

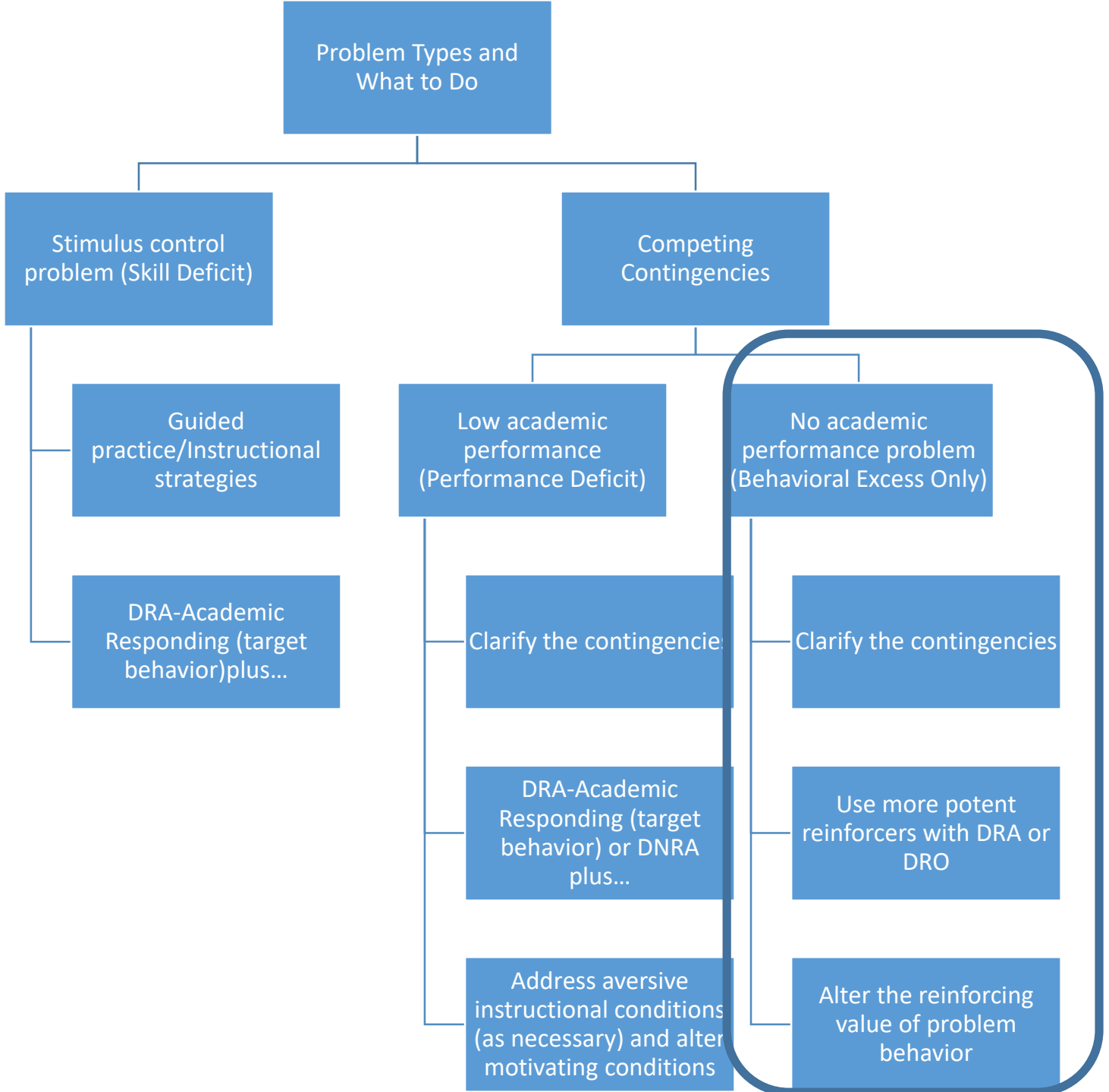
- Math computation fluency
- Writing fluency
- Teacher administration
- Oral Reading Fluency (email me)

Conditions

- Baseline
- Reinforcement training session (number copying task)
- Reward Sessions
  - Full menu (all possible items)
  - Limited menu (previously used items removed)

Reinforcer Validation

- Baseline:
  - Math, Writing, & Reading: Standard CBM Instructions
  - Teacher administered independent worksheet: Give the task and redirect for off-task behavior
- Reward Session
  - Randomly select a criterion between highest baseline score+1 and 1.5 X highest baseline score (Excel's® random number generator is helpful.)
  - Present the mystery criterion (index card with criterion score facing down)
  - Present a menu of rewards
  - Give task directions and instruct student to begin
  - Calculate score when time is up
  - Reveal criterion score and administer contingencies accordingly


Problem Types and What to Do
Stimulus control problem (Skill Deficit)
Competing Contingencies
Guided practice/Instructional strategies
DRA-Academic Responding (target behavior)plus…
Low academic performance (Performance Deficit)
No academic performance problem (Behavioral Excess Only)
Clarify the contingencie
DRA-Academic Responding (target behavior) or DNRA plus…
Address aversive instructional conditions (as necessary) and alter motivating conditions
Clarify the contingencies
Use more potent reinforcers with DRA or DRO
Alter the reinforcing value of problem behavior

Behavioral Excess Unrelated to Skill Deficit

1. Make undesired behavior less reinforcing
    1. Eliminate source of reinforcement
        - Extinction
    2. Remove or alter cues for reinforcement
        - Antecedent Control (SDs)
    3. Make ‘em work harder to get reinforcement
        - Antecedent Control (Response Effort)
    4. Provide the same reinforcement independently of the behavior
        - Antecedent Control (Abolishing Operation)
    5. Use punishment
        - Negative Punishment: Time-out or Response Cost

Behavioral Excess Unrelated to Skill Deficit

2. Make desired behavior more reinforcing
    1. Reverse the contingencies
        - Differential Reinforcement (includes Extinction)
    2. Use powerful competing reinforcers for desired behavior
        - Differential Reinforcement, Antecedent Control (Motivating Operations), Choice as an Antecedent Intervention
    3. Make it easier to perform the desired behavior
        - Antecedent Control (Response Effort) + Differential Reinforcement
    4. Use punishment with undesired behavior and effective positive reinforcement with desired behavior (i.e., #1 or #2).
        - Negative Punishment (Time-out or Response Cost) Plus Differential Reinforcement

Setting the Stage for Performance with Antecedent Control

- Discriminative Control
  - Instructions
  - Adapting modeling, prompting, and item-choice to the student's proficiency level (Instructional Hierarchy)
- Choice of…
  - Task,
  - Response formats, and/or
  - Contingent consequences (use a menu)
- Make contingencies indiscriminable: "Mystery Motivator"
  - Criterion for behavior,
  - Consequences
- Response effort: Interspersing easy items

Kruger, Strong et al. (2016)

Intervention Matrix Worksheet

Planning proposed strategies

Edward J. Daly III, University of Nebraska-Lincoln

Intervention Matrix Worksheet: Antecedents

- Prompting
  - Pace,
  - Modeling,
  - Gestural,
  - Verbal,
  - Physical, and/or
  - Self-recording
- Manipulating Discriminative Stimuli
  - Appropriate Behavior: Making SDs more salient and functional
  - Inappropriate Behavior: Making SDs less salient and functional
- Manipulating Motivating Operations
  - Creating satiation or deprivation by controlling prior access
  - Altering aversive stimuli prior to task performance
- Behavioral Momentum

Intervention Matrix Worksheet: Consequences

- Plan the reinforcement schedule
- Performance feedback
- Error correction:
  - Contingent modeling,
  - Practice in isolation,
  - Practice in context
- Punishment:
  - Response Cost
  - Timeout

Problem Validation Interview Planning

- Graphs,
- Rationale for target behavior selection,
- Rationale for behavioral function,
- Intervention Matrix Worksheet completed
- Be sensitive to the teacher’s vulnerable position

Problem Validation Interview

- Establish the goal of the meeting
- Present data with a clear rationale for target behavior selection and intervention ideas
- Establish agreement about target behavior
- Confirm data collection procedures for ongoing data collection
- Present a variety of strategies and work to develop a package that is a good “fit” for the teacher
  - Emphasizing functional basis of components in non-technical terms
- Offer to create a treatment protocol and train the teacher in its use
- Review, review, review

Treatment Trial

- Two week “test run”: Preliminary examination of effectiveness and feasibility
  - “Let’s give the plan its best shot at working, and we can go from there.”
- Trial includes:
  - Specified change agent and implementation frequency
  - Intervention protocol, implemented as specified; no changes or deviations
  - Treatment integrity monitored via direct observation
  - Continued progress monitoring of student performance

What Makes Treatment Plans Work or Fail

- Has the person doing the plan learned how to do it properly?
- Are the incentives for doing the plan enough?
- Is someone supporting the person doing the plan?
- Are sufficient resources and time devoted to doing the plan?

Developing and Implementing a Treatment Plan

- Choose **procedures** that address the problem
- Describe the procedures to follow in a **step-by-step plan**
- Identify
  - Who is responsible for implementing the intervention
  - When the intervention will be implemented
  - How often the intervention will be implemented
  - Who is responsible for monitoring the student's progress as well as whether the intervention is being implemented as it is designed

Developing and Implementing a Treatment Plan

- Ask permission to stop by to see how it's going
- Bring written plan
- Identify steps that are not being done correctly
- Offer feedback
- Work through difficulties while not compromising the "essence" of the plan
- Before judging whether the plan works during your evaluation, ask yourself whether it was done as planned.

How about antecedent interventions to improve TI?

Andersen & Daly (2013) An experimental examination of the impact of choice on treatment integrity. *Journal of Educational and Psychological Consultation, 23*, 231–263. doi:10.1080/10474412.2013.845493

Treatment Validation Interview

- Establish the goals of the interview
- Review the plan:
  - Original design,
  - Functional basis of components,
  - Feasibility for teacher,
  - Treatment-integrity data
- Review and evaluate outcomes to date
- Consider outcomes in light of treatment-integrity data
- Plan for next steps: Keep intact? Modify? Change altogether?

Treatment Evaluation Interview

- Evaluate goal attainment:
  - No progress toward goal
  - Some progress toward goal
  - Goal attained
- Discuss factors affecting outcome (internal validity)
- Come to a post-implementation decision:
  - Leave the plan in place
  - Current plan is modified
  - A new plan is devised
  - Plan is removed
- Discuss maintenance and generalizability of the plan
- Discuss follow-up assessment
- Have the teacher evaluate social validity