Behavior Community of Practice
Week #3

Secondary Session

Data collection

Please Note:

- Use the chat to post **general** comments and/or questions. You may still post to the Jamboards following the session.
- Questions will be answered at the end of the session as time permits
- Session recordings & resources sent in follow up email when available
- If you are attending in a group setting, please email a sign in sheet with first/last name and email address of those in attendance to: deana.smith@wyo.gov

Jamboards

- Group #1 (A-K)

  https://jamboard.google.com/d/1MlrRgX5dZK1s6UwmGoE_cNQMrsdFRKeMaj5ByyLuMgE/viewer?f=0

- Group #2 (L-Z)

  https://jamboard.google.com/d/1r0A69RL3tXyVbIV7MeW4TorPaC4LndFG9hb60h0Txjo/viewer?f=0

Learning Objectives

Participants will:

1. Understand the importance of data collection
2. Learn how to define behavior
3. Understand continuous and discontinuous methods of data collection
4. Learn to collect data using interval measures
5. Understand how to collect ABC data

Objective #1:

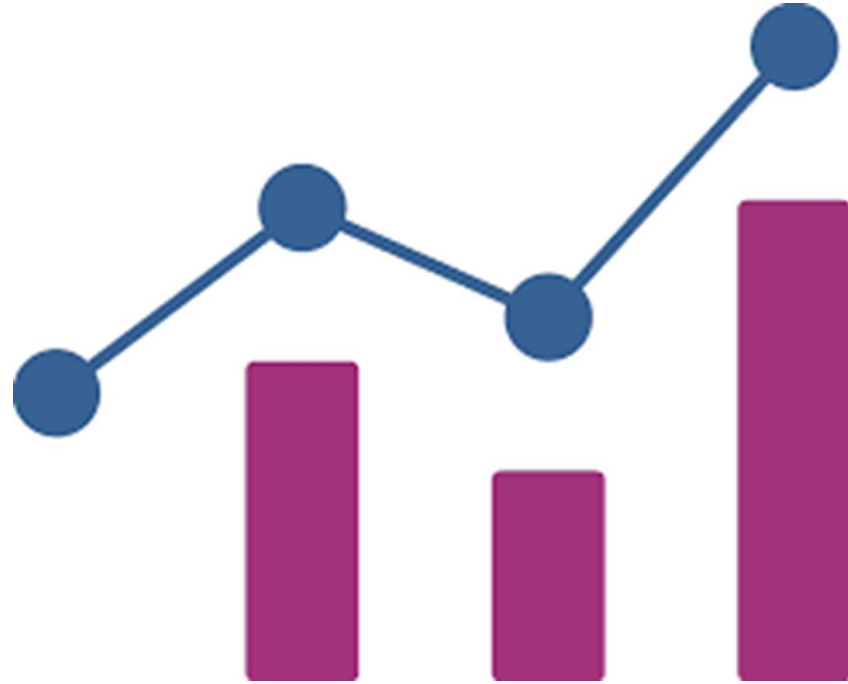# Understand the importance of data collection

Data is Important

- Current levels of behavior (we are not reliable reporters)
- Baseline vs. Intervention
- Intervention success
- Determine if intervention requires changes or modifications.

Data

What is good data?

- Taken in the moment
- Objective
- Observable- see and hear
- Measurable

Objective #2:

Learn how to define a behavior

Measuring Behavior

- Clear and concise
- Measurable and observable
- Any person can detect the occurrence or non-occurrence of the behavior in an observation
- Frustration, anxiety, autism,...
- Hitting: Others? Hitting self?
- Consider magnitude

Measuring Behavior

- Defiant--- laying on the floor under the desk
- Depressed --- sleeping for 25 minutes during lecture
- Anxiety --- pacing
- Angry --- Yelling "No, I don't want to," when assignment is handed out
- If student reports they are angry…

Measuring Behavior

- Overwhelmed --- Screaming, "I don't know how to do this!"
- Throwing a fit or tantrum --- Screaming, laying on the floor, kicking feet
- Frustrated --- Eloping the classroom
- Aggressive --- hit with a closed fist 3 times-pencil
- Non-compliant --- did not attempt the assignment or ask for help

Objective #3:

Understand continuous vs. discontinuous methods of data collection

Measurement

1. Continuous Measurement- we observe all instances of behavior. Constant monitoring
2. Discontinuous Measurement- we do not observe all instances of behavior. We can monitor/do other things.

Continuous Measurement

- Frequency Data-Captures every instance of behavior
- Duration Data-how long (seconds, minutes, etc.) the behavior is occurring
- ABC Data-Antecedent, Behavior, Consequence

Discontinuous Measurement

Time Sampling Data is an indirect observation.

- Partial Interval Recording
- Whole Interval Recording
- Momentary Time Sampling

Discontinuous Measurement

- Partial Interval Recording: Behavior is recorded if it **occurred at all** during the time segment.
- Whole Interval Recording: Behavior is recorded if it occurred the **entire** time segment.
- Momentary Time Sampling: Behavior recorded if it occurs when you look at the **end** of a time segment.

Discontinuous Measurement

"... **some instances** of the (behavior) of interest may not be detected" (Cooper, Heron, & Heward, 2007).

- Incomplete measurement- provides an "estimate"
- Behavior may be over or under reported.
- This is an indirect observation.
- Less valid than continuous measurement.

We generally use discontinuous measurement when rate or duration would be too difficult to record.

Objective #4:

Learn to collect data using interval measures

Partial Interval Recording

- Observation period is divided into a series of brief time intervals (typically from 5-15 seconds) but can be longer.
- Shorter intervals of time require more work but have more accurate data.
- One tally is recorded if the behavior occurred **at any time** during the interval, even if it occurred many times.

Partial Interval Recording

- We aren't counting frequency
- **Tends to overestimate** behavior
- This is the most used type of discontinuous measurement.

Partial Interval Recording

Determine the length the observation

Break into smaller intervals that are **_equal in length_**
Examples:

- A 20- minute observation session may be separated into 2-minute intervals with ten boxes
- A 15-minute observation may be separated into 10-second intervals with 90 small boxes

Partial Interval Recording

- Mark an "X" or a "tally" for occurrence of the behavior and a "O" or for no occurrence
- A student may engage in swearing three times, but only get one "X" in the interval
- At the conclusion of the observation, count the number of intervals in which behavior was observed.

Partial Interval Recording

- Example: 15-minute partial interval- 90 10-second intervals. At the conclusion of the observation, total the number of intervals (90) with "X" (showing the behavior occurred).
- The behavior occurred in 24 of the boxes. The total number of boxes is 90. 24 / 90 = 27%
- 27% of the observation ***intervals*** show the student was talking out.
- NOT 27% of the observation

Partial Interval Recording

When to use:

- For behaviors you want to **DECREASE**
- Low rate behaviors
- When the behavior is not easily counted

Partial Interval Recording Form

Student's Name: _____ Teacher: _____

Subject/Period: _____ Date(s): _____

Behavior Definition (in <u>specific</u>, <u>observable</u>, <u>measurable</u> terms):

_____|

_____

_ Total Observation Time: _____ Length of each interval: _____

Date	Interval #										Total times behavior occurred (X)
	1	2	3	4	5	6	7	8	9	10	
O or X											

Date	Interval #										Total times behavior occurred (X)
	1	2	3	4	5	6	7	8	9	10	
O or X											

Partial Interval Recording

https://www.youtube.com/watch?v=v9EEbNsR19o

https://www.youtube.com/watch?v=nBfFOE4Q4X4
Examples

Whole Interval Recording

- Observation period- intervals
- At the end of each interval, the observer records whether the target behavior occurred throughout the **entire interval**
- Tends to underestimate behavior

Whole Interval Recording

When to use:

- Behavior is not easily counted
- No definite beginning or end
- High rate behaviors

Whole Interval Recording

- Behaviors we want to **INCREASE**
- Tends to **UNDERESTIMATE** the behavior
- **Examples:** Playing with peer during recess, engaging in independent work, cooperating on an assignment, playing with a toy during free time

Whole Interval Recording

Advantages:

- It provides an **estimate** of the duration of a behavior

Disadvantages:

- Requires undivided attention
- Observing and recording data simultaneously can be challenging

Whole Interval: The behavior must occur for the *entire* interval to be recorded as [+] Underestimates rates of behavior **Partial Interval:** *part* of the interval to be recorded as [+] Overestimates behavior

Calling out	:10 sec	:10 sec	:10 sec	:10 sec	:10 sec	:10 sec	+/total
Record a [+] for occurrence or [-] for Non-occurrence							

Calling out	:10 sec	:10 sec	:10 sec	:10 sec	:10 sec	:10 sec	+/total
Record a [+] for occurrence or [-] for Non-occurrence							

Calling out	:10 sec	:10 sec	:10 sec	:10 sec	:10 sec	:10 sec	+/total
Record a [+] for occurrence or [-] for Non-occurrence							

Calling out	:10 sec	:10 sec	:10 sec	:10 sec	:10 sec	:10 sec	+/total
Record a [+] for occurrence or [-] for Non-occurrence							

Whole Interval Recording

https://www.youtube.com/watch?v=XEq4ZFbzPeE

Momentary Time Sampling

A measurement method in which the presence or absence of behaviors are recorded at **precisely specified time - the very end of the interval)**.

Overestimate OR underestimate the instances of behavior.

Momentary Time Sampling

Advantages:

- Not continuous observation
- Easy to implement in class
- Can take data on multiple students at once

Disadvantages:

- May underestimate a student's behavior

Discontinuous Measurement

- There are no correct or incorrect number of intervals or observational duration periods
- The same interval data collection sheet can be used for whole interval, partial interval and momentary time sampling procedures.

Objective #5:

Understand how to collect ABC data

Data

Antecedent-Behavior-Consequence (ABC)

- Helps us understand "why" a behavior may be occurring (Function)
- Assists in understanding antecedents and consequences that may contribute to the challenging behavior.

Data

- Antecedent- Events occurring prior to the problem behavior that may set the occasion for the behavior to occur
- Behavior- Observable and measurable
- Consequence- Events occurring after the problem behavior

A = Antecedent

A thing or event that logically precedes another

- Events prior to the behavior
- Events that may set the occasion for the behavior
- Setting events
- Private events

Common antecedents?

B = Behavior

The way in which one acts- activity, movement, changes in the environment

- Observable
- Measurable
- Objective
- Clear

C = Consequence

The Goal of Consequences

Our goal is to change behavior over time, not just in the moment.

If the behavior is not changing we are not choosing the right consequences.

CHANGE AHEAD

The result or effect of an action

- Events that follow the behavior
- Events that occur because of the behavior
- Consequences can maintain, increase, or decrease future behavior
- Common consequences

ABC Log

Student Name:
Period/Hour:
Teacher:

Target Behaviors:

1	5
2	6
3	7
4	8

Date	Time	Activity	Antecedents	Exact Behavior(s)	Consequences	Student's Reaction

Date:	Time:	Location / Setting:
Antecedent What was happening before the behavior occurred?	**Behavior**	**Consequence** What happened after?
☐ Given direction/task/activity ☐ Asked to wait ☐ New task/activity ☐ Difficult task/activity ☐ Preferred activity interrupted ☐ Activity/Item denied (told "no") ☐ Loud, noisy environment ☐ Given assistance/correction ☐ Transition between locations/activities ☐ Attention given to others ☐ Presence of specific person ☐ Nothing ("out of the blue") ☐ Attention not given when wanted ☐ Left alone (no indiv. attention) ☐ Left alone (no approp. Activity) ☐ Other: _____	☐ Refusing to follow directions ☐ Making verbal threats ☐ Disrupting class (describe) ☐ Crying/whining ☐ Screaming/yelling ☐ Scratching ☐ Biting ☐ Spitting ☐ Kicking ☐ Flopping ☐ Running away/bolting ☐ Destroying property ☐ Flipping furniture ☐ Hitting Self ☐ Hitting Others ☐ Verbal Refusal ☐ Other_____	☐ Verbal redirection ☐ Physical assist/prompt ☐ Ignored problem behavior ☐ Kept demand on ☐ Used proximity control ☐ Verbal reprimand ☐ Removed from activity/location ☐ Given another task/activity ☐ Interrupted/blocked and redirected ☐ Left alone ☐ Isolated within class ☐ Loss of privilege ☐ Calming/soothing: verbal/physical/both ☐ Physically restrained ☐ Peer remarks/laughter ☐ Time-out (duration)_____ ☐ Other _____
Duration: ____ <1 minute ____ 1/2 –1 hour	**Intensity:**	**Staff Initials / Observer:**

ABC's in Practice

Antecedent interventions- PREVENT behavior

Consequence interventions- reduce challenging behavior, improve desired behavior

Consequences can:

1. Increase behavior
2. Decrease behavior
3. Maintain behavior

Functional Relations

- Changes in one aspect will result in changes to another.
- Behavior is functionally related to antecedents and consequences.

A → B → C
(Antecedent) (Behaviour) (Consequence)
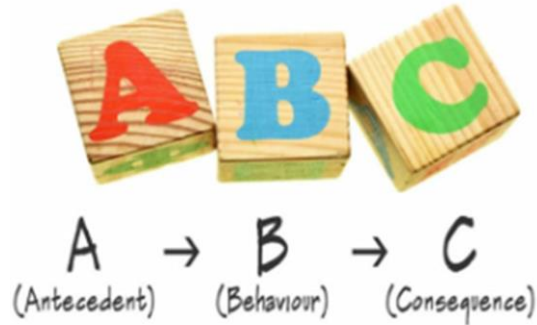
ABC Practice

Mark is a high school student who is chronically late to art class. The teacher, Mr. Watercolor, speaks to him on a regular basis and asks to please be on time so he doesn't continue to be docked 5-points per tardy. Mark tells Mr. Watercolor he tries so hard to get to class on time but is on the complete opposite side of the school and with all the students in the hallway, it is difficult.

ABC Practice

Antecedent(s): Transition between classes, crowded hallway, class far away

Behavior(s): Late to class

Consequence(s):

Teacher speaks to Mark about being on time, 5-points docked each time he is tardy

Review Objectives

Participants will:

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2. Learn how to define behavior
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4. Learn to collect data using interval measures
5. Understand how to collect ABC data

Weekly Challenge- Goal Setting

Take one or two!

Gradually change your own behavior for the better!

Thank you!

Christine Manning

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ABC Log

Student Name:
Period/Hour:
Teacher:

Target Behaviors:

1   5

2   6

3   7

4   8

Date	Time	Activity	Antecedents	Exact Behavior(s)	Consequences	Student's Reaction

Event Recording Form

Student's Name: _____ Teacher: _____

Subject/Period: _____ Date(s): _____

Behavior Definition (in <u>specific</u>, <u>observable</u>, <u>measurable</u> terms):

_____

_____

Time Period of Observation: _____

Date	Tally every time that the behavior occurs	Total number of times behavior occurred

Tieghi-Benet, M. C., Miller, K., Reiners, J., Robinett, B. E. Freeman, R. L., Smith, C. L., Baer, D., Palmer, A. (2003). *Encouraging Student Progress (ESP), Student/ team book.* Lawrence, KS: University of Kansas.

Students Name:_____ Teacher: _____

Behavior: _____

Setting	Time Begin	Time End	Total Time	Notes:
	:	:	:	
	:	:	:	
	:	:	:	
	:	:	:	
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Duration Recording Form

Student: _____   Date: _____

Class/ Teacher: _____   Observer: _____

Behavior: _____

Instructions: Record start and end times and calculate the duration for each occurrence of the behavior.

Date	Time Start	Time End	Duration
12/1	Example (digital stopwatch) 00:00	04:27	4 minutes, 27 seconds
12/11	Example (wall clock) 8:30	08:57	7 minutes
			TOTAL/ AVERAGE:

Additional comments:

IRISCENTER™

Frequency Recording Form

Student: _____

Class/ Teacher: _____ Observer: _____

Behavior: _____

Instructions: Make a mark each time the behavior occurs. To calculate rate[1], divide the total number of occurrences by the length of the observation.

Date	Time started	Time ended	Total time	Tally	Total occurrences	Rate
11/14	Ex.: 8:30 am	Ex.: 8:45 am	15 min.	⧸⧸⧸⧸ ⧸⧸⧸⧸ ⧸⧸⧸⧸ ///	18	18/15 min. = 1.2/min.

Additional comments:

_____

[1] If the observation periods are the same length, rate calculations might not be necessary.

A-B-C Descriptive Data Sheet

Student initials: <u>SS</u>   Target Behavior: <u>Yelling</u>   School/Classroom: <u>Early Elementary – K2</u>

Operational Definition: <u>Times where Samantha calls out louder than her peers while inside the school building. Each time Samantha calls out begins the episode. One minute free of the behavior marks the end. Ex: Samantha screams, "Go away!" during circle time. Non-example: Samantha cheers, "Go team" while outside during recess.</u>

Setting events – medication changes, illness, vacationing, changes in routine, new IEP objective, etc. Antecedents – events which precede the target behavior, Behavior – detail the topography (the way the behavior looks, intensity, duration, etc.), Consequence – events which follow the target behavior, may be planned or unplanned responses to a behavior.

Staff to initial after each documented A-A-B-C

Date/Time/location	Setting Events	Antecedent/Stimulus Events (Immediate Antecedent)	Behavior	Consequences
12/21/06 (TH) 8:30 am Classroom rug/ Circle – AK	Holiday break approaching Grandparents visiting	Reading story to group	Yelled, "I hate this!"	Verbal reminder "quiet voice" Told to leave circle
12/22/06 (F) 11:30 am Lunch/Cafeteria – SD	Last school day before holiday break Grandparents visiting	Sitting at table, eating lunch Lunch aide told class to clean up	"I'm not ready! Leave me alone!"	Lunch aide repeated direction to clean up Lunch aide throws away the rest of Samantha's lunch
1/02/07 (T) 10:00 am Group game centers – AK	First day after holiday break Grandparents left (back to FL)	Playing board game with 1 peer (Shelly)	"Give that back to me!"	Shelly gives Samantha the game piece
1/03/06 (W) 1:30 pm Library - HK	Late to school – dentist appt.	Story being read to all students (small discussion)	"I hate you! You are ugly! I think you are stupid!"	Told to leave group Classroom aide spends 10 minutes talking to Samantha about her behavior

A-B-C Chart

Date/Time/location	Setting Events	Antecedent/Stimulus Events (Immediate Antecedent)	Behavior	Consequences
1/04/06 (TH) 8:45 am Classroom rug/ Circle – AK	Medication given 30 min late	Reading story to group	Yelled, "This is stupid!"	Verbal reminder "quiet voice" Told to leave circle
1/04/06 (TH) 9:00 am Pullout (Speech) - SD		Speech therapist came into room to take Samantha to speech group	Sat on floor – refused to get up Yelled, "No!"	Speech therapist left room Reschedule session Samantha sat at desk for 5 min Joined peers at choice
1/05/06 (F) 9:30 am Literacy group - HK		Drawing pictures from story read at circle Peer took red crayon	Yelled, "Give me that!"	Peer gives Samantha red crayon Samantha continues drawing
1/05/06 (F) 11:30 am Lunch/Cafeteria - SD		Sitting at table eating lunch Lunch aide told class to clean up	"I'm not ready! Leave me alone!"	Lunch aide repeated direction to clean up Lunch aide throws away the rest of Samantha's lunch
1/05/06 (F) 1:30 pm Library – HK	Late arrival to school	Story being read to all students (small discussion)	"This is stupid! I'm not listening!"	Told to leave group