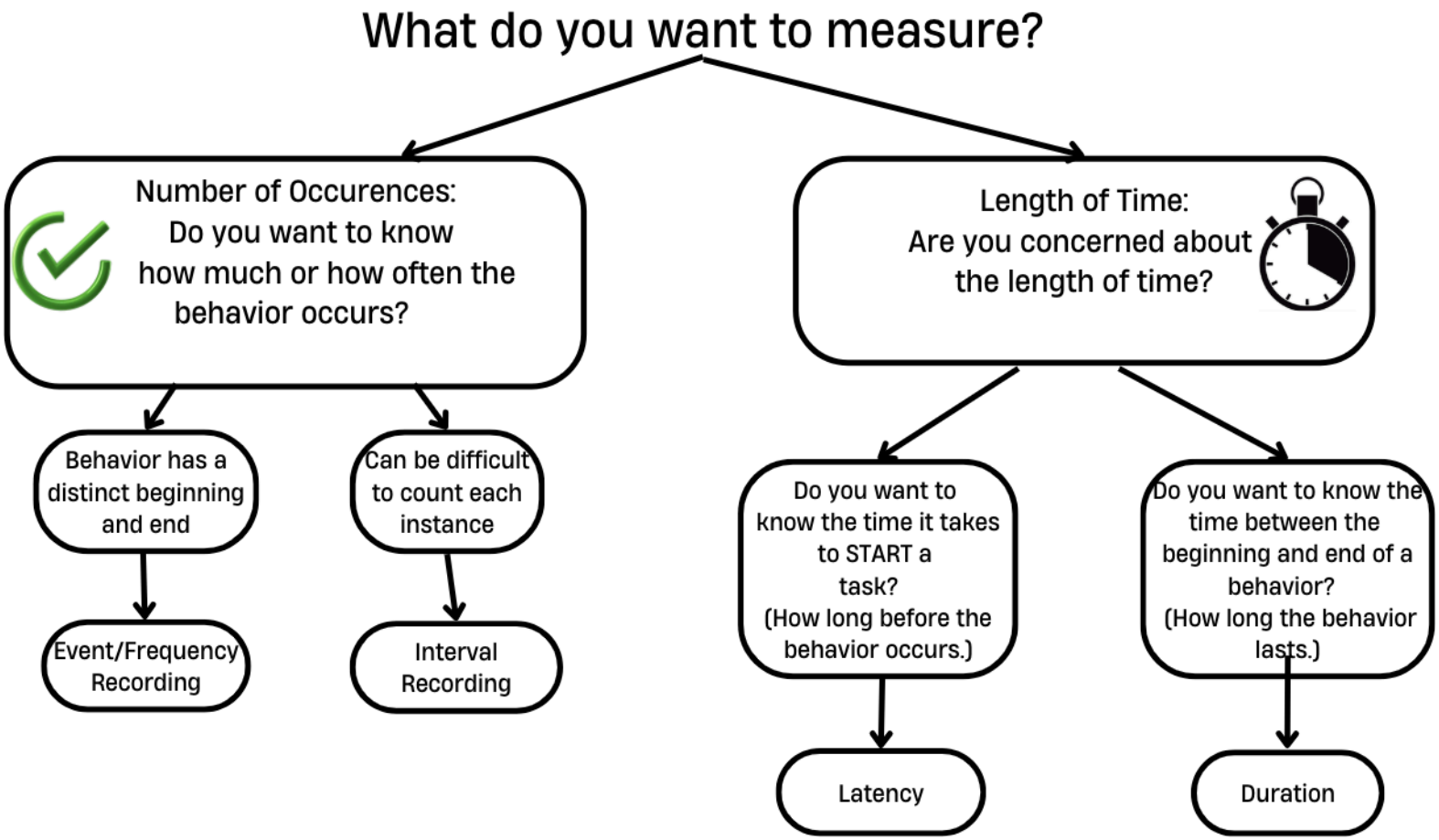
Choosing a Data Collection Method

Behavioral Data Collection Resources

What do you want to measure?



Choosing a Data Collection Method

Description of Behavior	**Type of Behavior Data Collection Method**
The behavior does not occur that often.	Frequency, ABC
We need to know exactly how many times the behavior occurs per day.	Frequency, ABC
The behavior is easy to count and the length of observation time is consistent day to day.	Frequency, ABC
The behavior occurs for long periods of time and the beginning and end of the behavior is observable.	Duration
The behavior does not occur often, but when it does, it occurs at long durations.	Duration
We need to know the length of time the behavior occurs.	Duration
We need to know how often or specific times that a behavior occurs.	Interval
The behavior occurs at a high frequency.	Interval
The behavior occurs frequently and the duration of the behavior is really short.	Interval
The behavior occurs constantly.	Interval
The student is presented with opportunities to engage in appropriate behavior.	Opportunities
We need to know how long it takes for a student to start engaging in a behavior when presented with the opportunity.	Latency

Frequency Recording

Definition

The observer counts each occurrence of the behavior during a specific time period, often extended over a whole day if the behavior is of low frequency.

Purpose

Gives an accurate record of frequency within a designated time period, thus estimating a rate at which the behavior occurs.

Application

- When behavior has a clear beginning & end.
- When behavior can be easily counted.
- When behavior is of moderate to low frequency and occurrences are similar in length.
- Can be used to record more than one behavior or more than one student's behavior.

When NOT to use

Do not use when behavior has such a high rate that accurate count is impossible (i.e. pencil tapping) or when the behavior occurs for extended period of time (i.e. 2 tantrums but the duration of each tantrum is one hour).

Examples

Out of seat, hitting a peer, throwing items, raising hand, yelling out answer, asking to use restroom.

How to collect the data

- Tally marks on a data sheet
- Tally marks on a dry erase board
- Move items from one pockets to a different pocket (counters, pennies, paperclips)
- Clicker

Summarizing the data

At the end of observation period, total the number of occurrences.
Rate: Count the # of times behavior occurred, divide that by the length of time behavior observed. (kicked 30 times in 10 minute observation, rate would be 3 kicks per minute).

Behavior Assessment: Frequency and Interval Recording

Frequency Recording Form

Student: Joyce Date: 10/21/xx

Class/ Teacher: Language/ Ms. Sample Observer: Mrs. Dover

Target/Problem behavior: During journal writing activities, Joyce makes comments to herself or to others (e.g., "This is boring.") or gestures (e.g., heavy sighing) unrelated to the academic material.

Note: The teacher starts the stopwatch at 10:30. Count verbalizations and sighs as separate events.

Time Started	Time Ended	Tally	Length of Observation	Rate

Duration Recording

Definition

The observer measures the total length of time that the behavior occurs during a predefined observation period.

Purpose

Provides a record of how long the behavior occurs within a given time period. Used for when your primary concern is the length of time the student engages in the behavior.

Application

- When behavior, of low to moderate frequency, has a clearly definable beginning & end.
- For a behavior of long duration.
- For a behavior with variable durations.

When NOT to use

Do not use if the behavior occurs at a high frequency or the behavior starts and stops rapidly.

Examples

Screaming fit, tantrum, engagement time in an activity.

How to collect the data

- Record the start and stop time on the data sheet
- Use a stopwatch or timer
- Write the times on a dry erase board or scrap paper until time is available to document on data sheet

Summarizing the data

- % of observations with behavior: Sum the total number of min/sec/hrs that the behavior occurred during observation, divide the sum by total number of min/sec/hrs of the observation, and multiply by 100.
    - (60 min obs, 3 tantrums for 3 min, 7 min, and 5 min for total of 15 min; 15 divided by 60 .25 x 100 = tantrums occurring during 25% of observation)

- Average Duration of Behavior: Sum the total durations and divide by the total occurrences.
    - (60 min obs, 3 tantrums for 3 min, 7 min, and 5 min for total of 15 min; 15 minutes divided by 3 tantrums average of 5 minutes per tantrum)

Date	Enter time when the behavior began	Enter time when behavior stopped	Length of time that the behavior lasted for
11/5	9:55 AM	10:06 AM	11 minutes
11/5	10:19 AM	10:28 AM	9 minutes
11/6	9:43 AM	9:51 AM	8 minutes
11/7	10:04 AM	10:19 AM	15 minutes
11/7	10:23 AM	10:33 AM	10 minutes

Interval Recording

Definition

The observer divides the observation period (i.e. 1⁄2 hour) into smaller time intervals of equal length, usually ranging from five seconds to one minute. The observer then records whether or not the defined behavior(s) occurs in each interval.

Purpose

Provides a percentage of intervals in which the behavior occurs; easily understood by others. Gives a rough estimate of the frequency of the responses and the latency between responses.

Application

- When frequency and duration recording do not work.
- For behaviors with high frequency or occurs continuously.
- Behaviors need not have a clearly definable beginning & end.
- The shorter the interval, the more accurate the representation of how often the behavior is occurring.

When NOT to use

- Do not use for low frequency behaviors.
- Do not use long intervals (i.e. 1 hour).

Examples

Crying, tantrums, talking with peers, on-task/off-task behavior

How to collect the data

- Break observation period into short intervals of time
- Note whether the behavior occurred (yes) or did not occur (no) during the interval.
- Regardless of whether the behavior occurs once, twice, or five times, it is checked only once to indicate that it occurred during the interval. (observing whether or not child disrupts during 10 min interval; teacher sets a timer to beep every 10 min; teacher marks the corresponding interval on data sheet; teacher does not record again until next interval)

Types of Interval Recording

- Whole Interval Recording
    - The observation period is divided into equal intervals and the target behavior must occur during the entire interval
    - Used when you are concerned with episodes that last at least the length of an entire interval
- Partial Interval Recording
    - Observances are scored if target behavior is exhibited at any point during the interval

    - May be a better estimate of frequency than whole interval
- Momentary Time Sampling
    - Records whether behavior is occurring at the end of the interval only
    - May yield the grossest method of frequency if intervals are too long or infrequent
    - Best when behaviors have a long duration

Summarizing the data

To calculate the percentage of intervals, count the number of intervals in which the behavior was recorded, divide by the total number of intervals during the observation period and multiply by 100. (out of seat 4 out of 10 intervals → 4 divided by 10 = .40 x 100 Student out of seat during 40% of intervals recorded during observation)

Student: Date:

Class/ Teacher: Observer:

Start/ end times: Length of interval:

Behavior:

Codes: + behavior did occur — behavior did not occur

Interval	Behavior	Interval	Behavior
Example	+ —	31	+ —
1	+ —	32	+ —
2	+ —	33	+ —
3	+ —	34	+ —
4	+ —	35	+ —
5	+ —	36	+ —
6	+ —	37	+ —
7	+ —	38	+ —
8	+ —	39	+ —
9	+ —	40	+ —
10	+ —	41	+ —
11	+ —	42	+ —
12	+ —	43	+ —
13	+ —	44	+ —
14	+ —	45	+ —
15	+ —	46	+ —
16	+ —	47	+ —
17	+ —	48	+ —
18	+ —	49	+ —
19	+ —	50	+ —
20	+ —	51	+ —
21	+ —	52	+ —
22	+ —	53	+ —
23	+ —	54	+ —
24	+ —	55	+ —
25	+ —	56	+ —
26	+ —	57	+ —
27	+ —	58	+ —
28	+ —	59	+ —
29	+ —	60	+ —
30	+ —	**Total %**	

Additional comments:

Latency Recording

Definition

The observer measures the length of time that it takes a student to start a behavior.

Purpose

Used when you are interested in how long a student takes to begin performing a particular behavior once the opportunity has been presented.

Application

- If teacher makes a request of student to put an activity away, observer would be interested in length of time it takes for the student to comply with the request.
- Use when the behavior has a clear beginning and end.
- Helpful to measure if the goal is to reduce the amount of time it takes for a student to start an appropriate behavior or increase the amount of time between an environmental trigger and the occurrence of inappropriate behavior.

When NOT to use

- Do NOT use when opportunities are continuous if they start and stop rapidly.

Examples

Starting an assignment, compliance with requests, time between peer instigation and aggression.

How to collect the data

Note when the opportunity is presented (request given) and when the student begins the response (compliance with request). This can be done by using a stopwatch, timer, and recording the start and stop times on a data sheet.

Summarizing the data

Data is summarized by calculating the average latency (average time it takes for the behavior to start). To calculate, sum all of the latencies and divide by the total number of opportunities.

Teacher assigned work 4 times during the observation. Student took 60 seconds, 90 seconds, 35 seconds, and 50 seconds to start the four assignments. So, 60+9035+50=235 divided by 4 = Student took an average of 58.75 seconds to start her assignments during the observation.

Latency Recording Form

Student: *Student B* Date: *Jan. 18, 20XX*

Class/ Teacher: *Soc. Studies/ Teacher B* Observer: *Observer B*

Behavior: *Beginning to work following teacher prompt*

Time of request or cue	Time behavior was initiated	Latency
Ex.: 11:30:02	*11:35:22*	*5:20 or 5 min., 20 sec.*
9:55:27 (to start independent work)	*9:58:32*	*3:05 (3 min. 5 sec.)*
10:02:31 (reminder to stay on task)	*10:04:02*	*1:32 (1 min. 32 sec.)*

Additional comments:

Opportunities Recording
Definition Determine how frequently a behavior occurs when given an opportunity to demonstrate the behavior.
Purpose Useful for determining how often a behavior occurs when given the opportunity.
Application Definition of opportunity must be previously established prior to collecting the data. If you would like for the student to comply with teacher requests, the opportunity would be defined at any time the teacher makes a request. Must remember to record each opportunity in order to produce an accurate representation of the behavior.
Examples Compliance or non-compliance with request, completing assignments, greeting peers, responding appropriately when told "no".
How to collect the data Use a plus (+) or minus (-) to indicate whether the behavior occurred when the opportunity was presented.
Summarizing the data Calculate percentage of opportunities. To calculate, sum the total number of time the behavior did occur when opportunity was presented (+), divide by total number of opportunities (+ and -), and multiply by 100. (Presented a request to student 15 time in one day; student complied with 10 of those requests; 10 divided by 15 = .66 x 100; Student complied with requests during 66.7% of opportunities)

PERCENTAGE OF OPPORTUNITIES DATA

For each opportunity to respond either put a + in the box if the replacement behavior/or desired behavior was observed or a – in the box if the student did not use the replacement behavior/or desired behavior.

Student Name:

Replacement Behavior and/or Desired Behavior:	
Date: Time Range of Observation:	Percentage: Number of + /Number of + and -
Date: Time Range of Observation:	Percentage: Number of + /Number of + and -
Date: Time Range of Observation:	Percentage: Number of + /Number of + and -
Date: Time Range of Observation:	Percentage: Number of + /Number of + and -
Date: Time Range of Observation:	Percentage: Number of + /Number of + and -

ABC Analysis

Definition
When the behavior of interest occurs, the observer records the target behavior, the antecedent (event that immediately preceded the behavior), and the consequence (event that immediately followed the behavior).

Purpose
This method involves recording the environmental variables related to the problem behavior. Use this method during a functional assessment observation to identify information regarding the possible function of the target behavior. If using this method as a progress monitoring data collection method, use only with behaviors that are not high in frequency and are easy to observe and count.

Application
- The ABC method is typically used during functional assessments and not for routine day to day data. Because it requires the observer to record multiple variables, it may require more time and effort to record every instance of behavior, especially high frequency behaviors.
- The ABC method only demonstrates correlation relationships between the problem behavior and observed antecedents and consequences.

When NOT to use
Do NOT use this method with high frequency behaviors.

Examples
Throwing items, inappropriate comments to peers, leaving one's seat, hitting or other forms of aggression, walking out of class without permission, refusal to follow instructions, etc.

How to collect the data
Record contextual information (e.g., date, time, activity taking place, people present, and location). When a problem behavior occurs, immediately record the event that happened right before the behavior (antecedent) and the event that happened right after the behavior (consequence).

Summarizing the data
If the team is using the information as part of the functional assessment, the team should look at the patterns across behavior, such as a certain time of day, activity occurring, or antecedent observed. If the team is using the information to monitor the progress of a goal or intervention, the data should be summarized as a frequency count. At the end of each observation period, total the number of occurrences of behavior.

ABC Data Sheet

Date:	Time:	**Antecedant**: Description of what, where, who, and how right before Behavior.	**Behavior:** Description of what behaviors occurred, intensity of behavior, duration of behavior, etc.	**Consequence:** Description of what occurred immediately following behavior, what did you do, what changed in the environment, what were others responses.

Observational A-B-C

This form can be used as an observation tool and as part of the functional behavioral assessment process (FBA).

Student: _____ Date: _____

Time of Day: _____ Duration of Observation: _____

Staff Observing: _____ Setting Where Observation Occurred: _____

Antecedents	Behavior	Consequence
What Happened Before the Behavior		***Purpose/Function of Behavior (Sensory, Attention, Escape, Other)***

ABC Data Sheet

Setting	Antecedent	Behavior	Consequence	Possible Function
Where did the behavior occur?	What happened immediately before the behavior?	Describe what the behavior "looks" like?	What happened immediately after the behavior?	Circle one of the four functions below.
Date: Time: Location: Activity:	❏ Given a demand or direction ❏ Transitioned to new activity ❏ Change in routine occurred ❏ Preferred activity ended ❏ Denied access to preferred item/activity ❏ Child was alone/No interaction ❏ Other:	❏ Screaming ❏ Running away ❏ Noncompliance ❏ Self-injurious behavior ❏ Whining ❏ Aggression (hit, kick, bite, scratch, etc.) ❏ Flopping to the floor ❏ Crying ❏ Property Destruction (throwing items, ripping materials, swiping a surface, etc.) ❏ Other:	❏ Ignored ❏ Timeout ❏ Reprimanded ❏ Attention given ❏ Given choice ❏ Escaped from requested demand ❏ Prompted to take break ❏ Allowed access to desired item or activity ❏ Removed item ❏ Redirected ❏ Other:	Gain access to attention Gain access to a tangible item or activity Escape from a demand Gain access to sensory input
Date: Time: Location: Activity:	❏ Given a demand or direction ❏ Transitioned to new activity ❏ Change in routine occurred ❏ Preferred activity ended ❏ Denied access to preferred item/activity ❏ Child was alone/No interaction ❏ Other:	❏ Screaming ❏ Running away ❏ Noncompliance ❏ Self-injurious behavior ❏ Whining ❏ Aggression (hit, kick, bite, scratch, etc.) ❏ Flopping to the floor ❏ Crying ❏ Property Destruction (throwing items, ripping materials, swiping a surface, etc.) ❏ Other:	❏ Ignored ❏ Timeout ❏ Reprimanded ❏ Attention given ❏ Given choice ❏ Escaped from requested demand ❏ Prompted to take break ❏ Allowed access to desired item or activity ❏ Removed item ❏ Redirected ❏ Other:	Gain access to attention Gain access to a tangible item or activity Escape from a demand Gain access to sensory input
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