Behavior Support for Intensive Intervention

Module 6
Defining, Measuring, and Monitoring Behavior
Workbook

National Center on
INTENSIVE INTERVENTION
at American Institutes for Research ▪

UCONN | UNIVERSITY OF CONNECTICUT

Table of Contents

Module 6 Checklist

The purpose of this Activity Workbook is to help organize content for this Module. You will do some activities on your own to help you engage with and think about the content. You will *not* be required to submit your responses for those activities. There are other activities, however, that you will submit online and apply in your classroom. The activities that you must submit before completing this Module are listed in the "Online" column below.

Section	Assignment	To Be Completed In Activity Workbook	To Be Completed Online	Classroom Application
Intro	Video		❑ Watch Module 6 Introduction Video Presentation	
Part 1	Video		❑ Watch Module 6 Part 1 Video Presentation	
Part 1	Guided Notes	❑ Complete Guided Notes		
Part 1	6.1	❑ Stop & Jot: *Selecting Target Behaviors*		
Part 2	Video		❑ Watch Module 6 Part 2 Video Presentation	
Part 2	Guided Notes	❑ Complete Guided Notes		
Part 2	6.2	❑ Stop & Jot: *Write an Operational Definition*		
Part 3	Video		❑ Watch Module 6 Part 3 Video Presentation	
Part 3	Guided Notes	❑ Complete Guided Notes		
Part 3	6.3		❑ Discussion Post: *Refine Your Definition*	
Part 4	Video		❑ Watch Module 6 Part 4 Video Presentation	
Part 4	Guided Notes	❑ Complete Guided Notes		
Part 4	6.4	❑ Workbook Quiz: *Selecting an Interval Recording System*		
Part 4	6.5	❑ Stop & Jot: *Select an Appropriate Measurement System*		
Part 5	Video		❑ Watch Module 6 Part 5 Video Presentation	
Part 5	Guided Notes	❑ Complete Guided Notes		
Part 5	6.6	❑ Pause & Process: *Create a Visual Summary*		

Next Steps	Video		❑ Watch Module 6 **Next Steps** Video Presentation	
	Module Quiz		❑ Take Module 6 Quiz	
	Classroom Application			❑ Select, define, measure and graph target behavior ❑ Review your report using the rubric with a peer or your coach

Module 6 Timeline

Week 1	Week 2	Week 3
Start Module	Continue Module	Complete Module & Classroom Application Activity

Module 6 Guided Notes & Activities

By the end of Module 3 you should be able to:
- Part 1:
  - *Select* an **appropriate target behavior**
- Part 2:
  - *Write* an **operational definition** for a target behavior
- Part 3:
  - *Identify* relevant **dimensions of behavior**
- Part 4:
  - *Choose* a **measurement system** based on relevant dimensions of behavior
- Part 5:
  - Use graphing conventions to create **meaningful visual displays** of data

Part 1

Why Measure Behavior?

Purpose	Question
Screening	**Who** needs support?
"Diagnostic": identify specific strengths and needs to guide your instruction & support	On **which** behaviors/skills? **What** will you do?
Progress Monitor to improve your instruction and support • Fidelity of implementation (your behavior) • Student outcomes (student behavior)	**How** will you adjust?
Outcome	Did it work?

Key Steps in Measuring Behavior

1. Select target behavior(s).
2. Define target behavior(s).
3. Identify relevant dimension(s) of behavior(s).
4. Determine best procedure(s) for measuring behavior(s) given definition, dimensions, and context.
5. Summarize data visually to guide decision making.

1. Selecting a Target Behavior

Social Significance
➢ Does it increase_____ to _____ ….

....from natural environment?
....from others?
....other (less restrictive) _____ where other
behaviors can be learned/performed?

➢ Is it **important** as a …

…_____ for another functional skills?
….behavioral _____ or pivotal behavior?
➢ Is it **age appropriate?**
➢ If a behavior is targeted for reduction, is there an _____ _____?
➢ Do you have the *"right"* behavior (not a related or verbal one)?

Prioritizing Behavior

1. "Does this behavior pose any _____ to client or others?"
2. "How *often*" does (or will) the behavior occur?
3. "How *long-standing* is the problem or skill-deficit?"
4. "Will changing this behavior produce higher rates of _____ for the person?"
5. "What will be the *relative importance* of this target behavior to future skill development and independent functioning?"
6. "Will changing this behavior _____ _____ or unwanted attention from others?
7. "Will this new behavior _____ _____ of significant others?"
8. "How likely is *success* in changing this target behavior?"
9. "How much will it _____ to change this behavior?"

Activity 6.1 – Stop & Jot
Selecting an Appropriate Target Behavior
Workbook

Identify a behavior concern for a student or staff you have worked with.

_____

_____

_____

Which behavior(s) are higher priority for staff or students? Why?

_____

_____

_____

Part 2

2. Defining a Target Behavior

Develop an Operational Definition

What is it?
- ➤ _____ **description** of target behavior.
- ➤ Should include _____/**non-examples**.
- ➤ Stated in terms of _____ **of behavior.**

Why is it important?
- We need an *objective* and *agreed-upon* definition of behavior to aid with observation, intervention, and discussion

Observable and Measurable?

Target Behavior	Anna is not prepared for class.
Replacement Behavior	Anna will be prepared for class

→
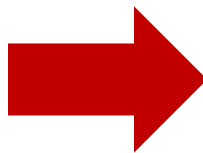
Target Behavior	Anna does not have her book or pencil at the start of class.
Replacement Behavior	Anna will have her book and pencil at the start of class.

Activity 6.2 – Stop & Jot
Write an Operational Definition
Workbook

- Return to the behaviors you identified in Activity 3.1.

- Develop an operational definition for your target behavior including examples and non-examples.

Target Behavior: _____

Operational Definition:

Examples of Target Behavior	Non-Examples of Target Behavior

Part 3

3. Identify Relevant Dimensions of Behavior

Why do we need dimensions?
- All behavior occurs within a _____.
- It may not be the actual form of the behavior that is inappropriate, but the duration, intensity, or rate of which the behavior occurs in a given context.
  Example: It is natural to be off-task some of the time. It is a problem if you are off task 80% of the time.

7 Dimensions of Behavior

	Definition	Measured by:	Example:
1. Frequency	The number of times an individual engages in a behavior within an observation period.	Counting incidents of behavior (_____).	
2. Rate	Frequency/_____	Counting incidents of behavior (_____)	

3. Duration	How long an individual _____ in a behavior.	Timing how long an individual engages in: ➢ each behavior (how long is each incident) ➢ one behavior throughout observation (cumulative)
4. Latency	The amount of time between the instruction (S^D) and a _____.	Timing interval between S^D (e.g., instruction) and when student begins to perform.
5. Topography	The "_____" of a behavior or what it looks like.	Observing and recording exactly how the individual performs the target behavior.
6. Force	The _____ of a behavior.	Observation (subjective) or apparatus designed to measure intensity.
7. Locus	_____ the behavior occurs (e.g., setting, target location on "victim's" body, etc.).	Observing and recording.

Activity 6.3 – Discussion Board Post
Refine Your Definition
Online

Before you complete this module, please complete a discussion board post that answers the following questions. Once you've posted, please respond to at least two of your classmates' posts.

1. Return to the operational definition you developed in Activity 3.2.
2. Identify (one or more) key dimensions that are particularly relevant for your setting.
3. Refine your operational definition using your identified dimensions.

Key Dimension(s) of my target behavior:
_____

Refine your operational definition using your identified dimensions.

_____

_____

_____

_____

_____

_____

Part 4

4. Determine the Best Procedure for Measuring Behavior

Decide who is going to take data.
- Will they be just observing?
- Or will they be teachers?

Decide how data will be collected.
- Observation?
- Permanent product?

Weigh practicality vs. precision.

Systems for Measurement

|	
Anecdotal Reports	**What is it?** _____ description of virtually everything that is going on within a setting for a particular learner. **When would we use it?** • To measure topography, locus, and force(?) • Generating _____ _____ • Developing a task analysis ("how to" steps) • Writing A-B-C notes to identify _____ (1 ABC) and behavior chains (AB**C** – A**B**C – **A**BC) at play for a particular student
Permanent Product	**What is it?** Permanent and tangible effects or outcomes of a behavior. **When would we use it?** • Frequency/Rate -- _____ • Locus -- _____ • Topography -- _____ • Force -- _____
Event Based Systems (Tally)	**What is it?** _____ of the number of times a student engages in a behavior in an observation period. **When would we use it?** To measure _____ of **low-frequency, discrete** behaviors (e.g. # of curse words). Can convert *rate* by dividing # of units of time in observation period.
Time Based *Estimates*	**What are they?** Ways to _____ the number of times a behavior occurs. **When would we use each?** • Used for _____ _____ _____ behaviors or behaviors of *longer duration*. • _____ *recording* yields a slightly more accurate estimate. • *Time sampling* is more practical if you are doing two things at once (i.e., teaching and recording data).
Interval Recording	**Whole Interval Recording:** Record only if the behavior occurred _____ the entire interval (e.g., off-task). **Partial Interval Recording:** Record if the behavior occurred ____ _____ _____ in the interval (e.g., talking to peer). **Momentary Time Sampling:** • Record whether or not a behavior occurs at the _____ of an interval. • Usually intervals are comprised of minutes, rather than seconds. • For example, record whether student is out of seat at the end of each 2-minute interval throughout 20-minute observation period.
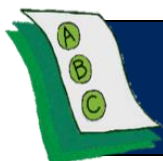
Activity 6.4 – Quiz
Selecting an Interval Recording System
Workbook

Determine which of the following interval recording systems you would use for each of the following behaviors: *partial interval recording, whole interval recording or momentary time sampling.*

If...	Then choose...	Which will yield...
Continuous desired behavior, such as on-task behavior		Percentage of intervals with target behavior
The behavior occurs at a very high frequency and very rapidly (e.g., talking, head-banging, hand-flapping)		Percentage of intervals with target behavior
It is difficult to continuously monitor the student **or** the observer needs a low-effort data collection method		Percentage of observations with target behavior

Time Based: Duration & Latency

How do we do it?
- Either start a stop watch after the S^D and stop it when the behavior starts (_____).
- Or, we would start the stop watch when the behavior starts and stop it as soon as it stops (_____).

Activity 6.5 – Stop & Jot
Select an Appropriate Measurement System
Workbook

- Return to the operational definition you refined in Activity 3.3.
- Select the measurement system that best measures the dimension(s) of interest.

- Develop your data collection tool.

Anecdotal Reports
Permanent Product
Event Based Systems (Tally)
Time Based *Estimates*
Interval Recording
Partial
Whole
Momentary Time Sampling
Time Based: Duration/Latency

Part 5

5. Summarize Data Visually to Guide Decision Making

Purpose of Visual Displays

1. "Provides…immediate access to on-going visual record"
2. "Explore interesting variations in behavior as they occur"
3. Aid in interpretation of data
4. "Visual analysis is a conservative method for determining the significance of behavior change"
5. "Enable and encourage independent judgments and interpretations"
6. "Effective sources of feedback to the people whose behavior they represent"

Choose an Appropriate Graph

- Use a _____ graph to summarize and show trends across time.
- Use _____ or _____ graphs to summarize/compare data in categories (e.g. antecedents vs consequences, different types of behaviors).

Choose an Appropriate Summary Score

Data System	Summary Score(s)
Anecdotal Report	• Narrative description
Permanent Product	• # of events • #/time (rate) • % of total
Tally/Count	• # of events • #/time (rate) • # or % events per category
Duration Recording	• Total time (cumulative) • % of time • Average time per event (beg to end)
Latency Recording	• Total time (cumulative) • % of opportunities on time • Average time (between S^D and behavior)
Partial Interval Recording	• % of intervals
Whole Interval Recording	• % of intervals
Momentary Time Sampling	• % of intervals (or opportunities)

Line Graphs

- Line graphs are great ways to represent data across time
- They allow you to detect _____ in your data
- Graphing Conventions
  - Graphs have <u>units of time</u> going across horizontal __ axis and <u>units of behavior</u> going up the vertical __ axis
  - Different data_____ (geometric shapes) and data_____ (lines) are used to represent different types of information.
- In line graphs, the following are used:
  - <u>Continuity Breaks</u> are used if data collection is _____ continuous (e.g., if student is sick for a week during observations).
  - <u>Phase lines</u> are used to separate "_____ on graph"
    - Data may be taken before an intervention (baseline phase).
    - Data may be taken during an intervention (intervention phase)

Pie Graphs

- Useful for representing **percentages** of things (individuals, events, etc.) that fall into certain _____.

Bar Graphs

- They are *also* useful for representing **percentages** of things (individuals, events, etc.) that fall into certain categories
- And, they can be used to represent data across time when data paths would be too confusing to represent in a line graph.

Activity 6.6 – Stop & Jot
Create a Visual Summary
Workbook

Return to the measurement system you selected in Activity 3.5

Identify an appropriate type of graph and sketch a graph of hypothetical data.

Line Graph
Bar Graph
Pie Chart

Which graphing features should you include to maximize the interpretation of your data?

_____

_____

_____

_____