This training program is based on the RBT Task List (2nd ed.) and is designed to meet the 40-hour training requirement for RBT certification. The program is offered independent of the BACB.

References

- Behavior Analyst Supervisor (BAS) RBT Study Guide: [https://behavioranalystsupervisor.com/](https://behavioranalystsupervisor.com/)
In This Presentation

A-1 → Prepare for data collection
A-2 → Implement continuous measurement procedures

Define Measurement

The process of applying quantitative labels to observed properties of events using a standard set of rules

- Designed to know what is included and excluded
Define Measurement

The process of applying quantitative labels to observed properties of events using a standard set of rules
- Designed to know what is included and excluded
- Focus on numeric values
- Allow for measurement
- Easly replicable
- Can use statistical analysis
- Can generalize to greater populations

Why do we need measurement?

Operational definitions enable us to measure responding and assess progress
- Guide decisions
- Prevent mistakes → Continue ineffective intervention, discontinue effective one

Benefits of Measurement

- Optimize effectiveness
- Verify treatment
- End pseudoscience
- Eliminate assumptions about what works, opinions
- Increase accountability
- Meet ethical standards
Prepare for Data Collection

- Read the protocol or program!
  - Ask questions if you are unsure!
- Review the corresponding graph!
- Be sure that you are familiar with the definition of the behavior (operational definition) that data is being collected on, the intervention you will implement, and the form of measurement you will use....
  - If not, seek out a supervisor or team member to get clarification and ask questions!

When in doubt...

When in doubt...

Supervisor!
**Remember the Operational Definition?**

We use them to describe behavior (responses) such that:

- The procedure can be replicated by multiple individuals AND reliably produce a measurable outcome; it is **observable** and **measurable**.

Our operational definition (or how we describe responding) is vital to quantifying behavior and behavior measurement!

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**Before We Dive Into Types of Measurement...**

It is important to remember:

- In classrooms and clinics many activities, events, and/or behaviors may be going on at a time.
- Data collection requires **time management** and comes with **practice**.

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**Measurable Dimensions of Behavior**

What features of a response we measure?

- Repeatability/ countability (count)
- Temporal Extent (duration)
- Temporal Locus (WHEN behavior occurs)
Repeatability Measures

- **Count/frequency**
  - Number of responses during observation

- **Rate**
  - Count/number per standard unit of time

- **Acceleration**
  - Change in rate per unit of time (acceleration/deceleration)

Measures of count alone do not provide sufficient information for analysis. More meaningful than count alone include counting time (duration) for reference to calculate rate. Rate of correct and incorrect responses helpful in skill development.
Repeatability Measures

- Celaration
  - Change in rate per unit of time

Reported using Standard Celaration Chart

Captures behavior acceleration and deceleration
Temporal Extent Measures

- Duration
  - Amount of time behavior occurs
  - Total duration of session
  - Duration of each occurrence
  - Reported in standard time units
  - Count and duration measures provide different pictures of same behavior

Temporal Locus (WHEN) Measures

- Response Latency
  - Time elapsed between onset of stimulus and initiation of response
- Interresponse Time (IRT)
  - Time elapsed between two consecutive instances of a response class

Typically reported as mean, median, and range
Temporal Locus (WHEN) Measures

- **Interresponse Time (IRT)**
  - Time elapsed between two consecutive instances of a response class
  - Direct measure of temporal locus and related to rate
  - Reported as mean, median, and range
Derivative Measures

- Percentage
- Trials-to-Criterion (Learn Units to Criterion)
Other Measures

- Topography – physical form or shape of a behavior

- Magnitude – the force or intensity with which a response is emitted.
  - Important parameter for some response classes, like voice volume.

Procedures for Measuring Behaviors

Use one or a combination of the following:

1. Event recording
2. Timing
3. Time sampling

Event Recording

Procedures for detecting and recording the number of times a behavior is observed

- Devices: Wrist counter, digital counter, paper clips

  Easy to do, must have discrete beginning and ending, rate must not be too high, inappropriate for behaviors with long durations
Timing

Procedures to measure duration, response latency, and interresponse time

Duration → Computer system, stopwatch, wall clocks, tape recorders

Response latency and interresponse time → Precise recording of duration between behaviors of interest

Time Sampling

Time sampling methods → variety of methods for observing and recording behavior during intervals or at specific moments in time.

Observation is divided into intervals, presence or absence of behavior recorded for each interval.
Next Time...

We will focus on learning about and practicing **CONTINUOUS MEASUREMENT** procedures!