

MODULE 4

Data Collection and Hypothesis Development

Trainer Outline

The following trainer guide includes estimated times for each section of the module, an overview of the information to be presented, possible activities for illustrating the concepts, and materials that should be utilized. The key concepts summarize the most essential points to be addressed within each section

Time Required	Training Activities	Key Concepts	Materials*
30 minutes	<p><u>I. Review of Previous Module</u></p> <p>Provide a brief review of Module 3. Ask teams to provide reports on their team’s plan for completing the functional assessment and any issues that arose during their file reviews or initial observations.</p>	<p>Functional assessment is a process of information gathering used to identify relationships between a person’s behavior and aspects of the environment.</p> <p><u>Updates:</u> Participants will be given an opportunity to provide feedback on Module 3. Team updates will include:</p> <ul style="list-style-type: none"> • a unique feature of their action plan • issues that still need to be addressed (i.e., what is missing) 	PWB 3: Extension Activity: Functional Assessment and Analysis from Module 3
15 minutes	<p><u>II. Overview of Purpose and Goals</u></p> <p>Review agenda and timelines for session.</p>	<p><u>Goal:</u> To assist the participants in selecting and using data collection tools and in analyzing their data.</p>	<p>OH 4.1: “Module 4”</p> <p>Purpose & Objectives</p> <p>Agenda</p>
15 minutes	<p><u>III. Rationale for Data Collection and Hypothesis Development</u></p> <p>Review the importance of obtaining data and generating hypotheses that will drive intervention. Explain the purposes that appropriate data collection methods can achieve.</p>		<p>OH 4.2: “Why Collect Data”</p> <p>OH 4.3: “DATA” (optional)</p>

* OH - over head from Power Point presentation PWB - activity from Participant Workbook

45 minutes	<p><u>IV. Defining Target Behaviors</u></p> <p>Review criteria for objectively defining target behaviors and provide examples stated in observable and measurable terms (e.g., aggression, following directions, requesting help).</p> <p><i>Activity: Looking back at the goals (from the person-centered plans) and using any anecdotal records, have teams develop definitions for their focus individual's behaviors of concern (i.e., what they want to increase/decrease). Have them share one or more definition with the group.</i></p>	<p>In order to collect data in an accurate, consistent manner, the behavior must be defined so that it is:</p> <ul style="list-style-type: none"> - observable (can be seen/heard) - measurable (can be recorded) <p>Broad goals can be operationalized by defining objectives more specifically.</p>	OH 4.4: "Defining Target Behaviors"
15 minutes	<p><u>V. Indirect Methods of Information Gathering</u></p> <p>A. <u>File Reviews</u>: Review information that may be helpful from archival records. Ask the participants to provide examples of records that are available and information in them that might provide some insight into their focus person's behavior.</p>	<ul style="list-style-type: none"> • Archival records (e.g., summary reports, evaluations) are easily accessible and can provide some useful information. • Person-centered plans can provide another useful source of information 	OH 4.5: "Records Reviews"
45 minutes	<p>B. <u>Interviewing</u>: Review briefly the purpose of interviewing people regarding an individual's behavior. Provide copies of the FAI; review their questions and the type of information obtained.</p> <p><i>Activity: Have one participant from each team conduct an interview with another member using an abbreviated form of the interview. The other team members should observe and provide</i></p>	<ul style="list-style-type: none"> • Interviews can provide a broader perspective on a person's behavior and build rapport between the interviewer and support providers. • Various interview formats (e.g., FAI and abbreviated forms) are available; different tools provide different levels of detail that may be useful in hypothesis development and intervention. 	<p>OH 4.6: "Interviewing"</p> <p>PWB: Interview Guide for FA</p> <p>PWB: Functional Assessment Interview</p>

	<i>feedback.</i>	Tips for interviewing: ask questions non-judgmentally, listen closely and clarify responses, avoid leading	
60 minutes	<p><u>VI. Direct Observation & Data Collection</u></p> <p>Review the various types of data collection procedures, providing some reasons for selecting particular tools and examples of completed data collection forms.</p> <p>A. Measurement Systems B. ABC Recording C. Scatter Plot D. Other Observational Tools</p> <p>Review guidelines for using data systems.</p> <p><i>Activity: Have participants practice taking data using a minimum of two data collection systems (e.g., ABC, Scatter Plot) either using videotapes or role plays. Compare results and provide feedback.</i></p>	<p>Two primary purposes of direct observation include:</p> <p>1) Evaluating the frequency, duration, or intensity at a given point and over time 2) Assessing patterns in behavior to inform hypothesis development and intervention (Scatter Plot, ABC Recording)</p>	<p>OH 4.7: “Direct Observation”</p> <p>OH 4.8: “Measurement of Behavior”</p> <p>OH 4.9: “ABC Recording”</p> <p>OH 4.10: “Scatter Plot”</p> <p>PWB: Data Collection Systems</p> <p>PWB: ABC Recording Form</p> <p>PWB: Scatter Plot</p> <p>PWB: Event Recording Data Sheet</p> <p>PWB: Duration Recording Data Sheet</p>
45 minutes	<p><u>VII. Decision Rules for Selecting and Evaluating Data Collection Methods</u></p> <p>Discuss considerations in selecting procedures for data collection, providing case examples.</p> <p><i>Activity: Have the teams identify at least one type of data collection procedure(s) for recording data on their focus person’s behavior. Refer to the PWB for decision rules.</i></p>	<p>Selection of data collection methods should be based on the nature of the person’s target behavior, the contexts in which the person is being observed, and logistical considerations.</p>	<p>OH 4.11: “Selecting the Right Data Collection System”</p> <p>OH 4.12: “Guidelines for Data Collection”</p> <p>PWB: Guidelines for Data Collection</p> <p>PWB: Assessment Methods</p>
30 minutes	<u>VIII. Analyzing and Synthesizing the Data</u>	The goals of functional assessment include collecting the right types of information and	OH 4.13: “Pattern Analysis”

	Describe methods to analyze patterns in the data to generate hypotheses. Review questions that guide the data analysis. Provide examples of graphs and/or other visual displays (e.g., Carr’s card sorting system) that illustrate patterns in data.	using that information effectively in generating plans. Data analysis should result in the identification of: 1) Circumstances in which the behavior is most likely and least likely (contexts) 2) The purpose (i.e., functions) of the behavior	Completed Scatter Plot, FA data (optional) Own OH of graphs of data (optional)
15 minutes	<u>IX. Criteria for Effective Hypothesis Statements</u> Describe hypotheses as the outcome of data collection. Present criteria for appropriate hypothesis statements and examples of statements.	Useful hypothesis statements are accurate, precise, and measurable.	OH 4.14: “Guidelines for Hypothesis Development” OH 4.15: “What is a...” OH 4.16: “How to Develop a...” OH 4.17: “Hypothesis Development” OH 4.18: “Sample Hypothesis” OH 4.19: “Linking to Interventions”
30 minutes	<u>X. Case Study Assignments</u> <i>Extension Activity: Have teams revisit their action plans. Prior to the next session, teams will need to complete the interviews and collect baseline data, identifying patterns in their data so that hypothesis statements may be generated. Ask participants to make sure that they bring this information with them to the next session and caution them to avoid progressing too quickly with intervention. To be reviewed at next session.</i>	<u>Goal:</u> Insure the team’s preparation for completing information gathering and analyzing patterns in the data. Complete Action Plan #1 to include who will be responsible and how the following outcomes will be achieved: <ul style="list-style-type: none"> • Review and summary of relevant records • Interviews to be conducted • Data to be collected (across settings) • Plan for analyzing patterns in behavior (Have teams turn in copies of action plans with target behaviors listed on top) 	PWB: Extension Activity: Data Collection and Hypothesis Development

15 minutes	<p><u>XI. Review and Preview of Next Module</u></p> <p>Provide a summary of what was covered during this module and introduce the topic for the next session. Draw participants' attention to the readings for Module 5.</p> <p><i>Conduct an interim evaluation, if desired.</i></p>	<p>This time: reviewed process/methods of functional assessment</p> <p>Next time: develop hypotheses and begin generating intervention plans</p>	Readings for Module 5 (select from Module 5 References)
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