PART 3

Collect Data

**MULTI-TIERED
IMPLEMENTATION
SUPPORTS**

collect data

analyze progress

identify next steps

To determine if a student is benefiting from an evidence-based intervention, it is necessary to monitor student response to the intervention (i.e., progress monitoring) and evaluate implementation (i.e., treatment integrity, Implementation Beliefs Assessment). This section describes how to collect these data. Chapter 5 describes treatment integrity and explains how to develop a treatment integrity tool to feasibly and accurately monitor implementation. Chapter 6 provides an overview of how to identify an appropriate progress-monitoring tool based on an intervention goal and available, research-based measures. Chapter 7 describes the Implementation Beliefs Assessment and how it can be adminis-

tered and evaluated.

Through reading this section, you will learn how to monitor student progress and intervention implementation so that you can make data-based decisions about student progress and implementation support.

Treatment Integrity Data

What Will This Chapter Tell Me?

Treatment integrity data indicate how much of and how well an intervention is being implemented. To decide if an intervention is impacting the target student(s), treatment integrity data should be reviewed alongside progress monitoring data. In the PRIME Model, treatment integrity data are the primary source of information to decide when and how to support the implementer. This chapter defines treatment integrity and explains how a treatment integrity tool can be developed. After reading this chapter, you will be able to describe treatment integrity and create a treatment integrity tool to evaluate implementation.

What is Treatment Integrity?

Treatment integrity is the extent to which an intervention is implemented as planned. Basically, reviewing treatment integrity data will tell you how much of an intervention is being implemented and what—if any—intervention steps are being missed.

In general, interventions that are implemented with a greater level of treatment integrity have a higher likelihood of resulting in positive student outcomes. That statement makes sense; the more a student receives an evidence-based intervention, the more that stu-

dent can benefit from the intervention. If a student is only exposed to 50% or 70% of an intervention or if a student is exposed to 100% of an intervention but only once a week as opposed to daily, he or she may not be able to sufficiently benefit from the intervention. Higher levels of treatment integrity ensure the student is appropriately exposed to the intervention. For other reasons why treatment integrity is important see Chapter 1.

Treatment integrity is believed to be multidimensional. That means there may be several dimensions, or aspects, of treatment integrity important to evaluating intervention implementation. Available research tells us three dimensions seem especially important—adherence, quality, and exposure—and are explained below.

- *Adherence* is the degree to which the specific intervention steps are implemented as planned. Adherence data can be reviewed by session or by intervention step. For instance, adherence data can represent the proportion of intervention steps that were delivered during each intervention session. If a teacher delivered 10 out of 11 steps of a reading intervention, the adherence dimension for that session would be 91% ([10/11] x 100 = 91%). Alternatively, adherence data can represent the percentage of sessions during which specific intervention steps were delivered. If a reward was to be provided daily, but was only delivered on 2 days during one school week, the adherence of that specific intervention step would be 40% ([2/5] x100=40%).
- *Quality* refers to how well the intervention steps are implemented (e.g., high versus poor quality of implementation). Quality ratings may include a Likert scale of operationalized definitions of quality or a checklist of relevant high-quality behaviors (see Step 3 below). It makes sense that simply walking through the steps of delivering an intervention but not doing so at the right time or with appropriate enthusiasm, may not be sufficient for promoting student outcomes. For example, a behavior sup-

port plan could include a paraprofessional providing specific praise along with a token that can be traded in for later reward to reinforce the student engaging in "safe" behavior during transitions. If the praise is delivered 45 minutes after a transition with a flat affect and no reference to the behavior expectation the student demonstrated, it is unlikely that the student will learn why he is earning tokens and later reinforcement. But if specific, contingent praise is consistently delivered with enthusiasm immediately after the transition it will be more likely to change student behavior.

PRIME Tip

Adherence and quality are closely related, but reflect different dimensions of treatment integrity. A step must be implemented (i.e., adherence), before quality can be reviewed. However, simply because the step is implemented does not mean it is delivered with quality. If a step is not implemented, no quality rating can be provided.

•*Exposure* is the extent to which the student is exposed to the intervention. Specifically, exposure is related to the frequency and duration (i.e., length) of implementation. Exposure is often described as (a) the number of minutes an intervention is provided for or (b) the number of intervention sessions delivered to a student. For example, if a student only attended 3 out of 5 possible Tier 2 reading support sessions during the week, the exposure dimension of treatment integrity is 60% ([3/5] x 100 = 60%). If another student attended all 5 of the Tier 2 reading support sessions, but left each 30-minute sessions after 15 minutes, the exposure dimension of treatment integrity is 50% ([75min/ 150 min] x 100 =50%). We wouldn't expect a student who was only exposed to 50-60% of the intervention to have the same outcomes as a student who was present for the full duration of all the sessions.

Adequate levels of adherence, quality, and exposure are essential for an evidence-based intervention to result in positive student

outcomes. The aim of the PRIME Implementation Supports is to effectively facilitate implementers' sustained treatment integrity over time. To do so, the consultant must measure treatment integrity of the intervention plan. With treatment integrity data, the consultant will decide if implementation support is needed, determine what support is appropriate, and evaluate if that support is effective (Chapters 8 and 9 include a description of this process). To do so, a treatment integrity tool will need to be developed and used to evaluate intervention implementation.

Developing a Treatment Integrity Tool

To assess intervention implementation, treatment integrity data must be collected systematically. Some interventions, particularly manualized interventions, include treatment integrity measures with the intervention materials. When an intervention does not include these measures or when an intervention is developed or individualized for a particular student, educators must create their own treatment integrity tools.

The development of a treatment integrity tool has 4 steps:
- Identify intervention steps,
- Choose an assessment method,
- Select or create an appropriate data collection form, and
- Develop a data collection plan.

These steps are described below.

Step 1: Identify intervention steps

To measure the implementation of an intervention, the specific intervention steps need to be defined. To do so, develop operational, measurable definitions of each intervention step. This process may be easier for some interventions than others. Review the evidence-based intervention and list the specific, behavioral steps necessary to complete the intervention.

For example, a behavior support plan likely includes antecedent,

teaching, and consequence strategies. The specific activities within these three types of strategies could be considered intervention steps. These items may include a list of intervention steps such as (a) review behavior expectations in the morning, (b) teach student how to request attention appropriately, and (c) provide specific praise when student meets the behavior expectation. The intervention step "teach student how to request attention appropriately" might be operationally defined as "Tell student to raise his hand if he needs support; model hand raising; have the student practice raising his hand when he needs support; and provide praise and feedback."

To check if your list of intervention steps and definitions is sufficient, consider whether it would be possible to observe and measure each intervention step. Or ask someone unfamiliar with the intervention if they can clearly understand the list of intervention steps. If not, revise your definition to be sufficiently observable and measurable.

As you define an intervention, consider the dimensions of treatment integrity that are most relevant for each intervention step. In most cases, adherence, quality, and exposure are likely relevant. However, for some intervention steps, only a specific dimension is applicable. For example, if an intervention requires the implementer to read a manualized script, a rating on intervention steps could be provided for both adherence to the script and the quality of its delivery. In addition, there could be an overall rating for exposure, or how long the intervention session lasted. A different student might involve the implementer providing a token sheet to a student weekly; for this intervention step it's possible that only adherence would be relevant.

Step 2: Choose an assessment method

The three options for treatment integrity assessment methods include permanent product review, direct observation, and self-report. The following table describes how each of these methods can be used and some of the strengths and limitations of each method.

	What is it?	Strengths	Limitations
Direct Observation	The consultant systematically observes the implementation of the intervention plan and then rates the extent to which he or she observes specific intervention steps	•Appropriate for most interventions •Allows for measurement of adherence, quality, and exposure •Most direct assessment method	•Time intensive for observer •May not be possible to observe across entire intervention implementation •Implementers may act differently when observer is present
Permanent Products	Review products created naturally through implementation to determine the degree to which the intervention steps were implemented	•Less likely to be affected by implementer or student reactivity •No need for an observer to be present during implementation •No additional work for implementer	•Not all intervention steps result in a permanent product •In most cases, only would be possible to rate adherence
Self-Report	Implementer rates the extent of implementation of the intervention steps on a checklist or form throughout or after an intervention session	•Quick way to assess treatment integrity after an intervention session •Possible to evaluate adherence, quality, and exposure •Self-report may act as a prompt for intervention implementation	•Implementer report may not always be as accurate

Implementation of a Tier 2 reading intervention, for example, could be evaluated through direct observation, permanent products, or self-report. For direct observation, the consultant would need to be present during the session to rate the extent of the implementer's

delivery of specific intervention steps. In this case, adherence, quality, and exposure would all be relevant and able to be evaluated through direct observation. The Tier 2 reading session could also be evaluated through permanent product review. In this case, the implementer would provide any materials produced during intervention implementation, such as any written examples modeled by the implementer and student written products. Then the consultant would review the permanent products for evidence of implementation of each intervention step. For this example, it is likely that some intervention steps would not be able to be evaluated, as they did not result in permanent products. Also, adherence would be the only dimension assessed. For self-report, the consultant might develop a checklist of the intervention steps involved in the Tier 2 reading session. Then, immediately following the intervention session, the implementer would rate his or her adherence and quality and record student exposure.

When deciding among these assessment methods, the consultant and implementer may consider the particular strengths and limitations of the methods themselves, as well as their match to the situation. Some of the specific considerations include the (a) match between the assessment method and the type of intervention being assessed, (b) resources available and feasibility of the assessment method, and (c) preferences of the implementer and consultant. The consultant may also consider the intensity of the intervention and what decisions are likely to be made based on these data (e.g., student intervention support, special education decisions, placement decisions). More intensive situations likely call for a more direct treatment integrity assessment method to be used.

PRIME Tip

It may be possible and appropriate to use more than one method of treatment integrity assessment. For example, a consultant and implementer may decide that they will use direct observation and self-report. That is, the implementer will report implementation

daily, but the consultant will come to observe implementation on a monthly basis.

Step 3: Create an Appropriate Data Collection Form

Based on the treatment integrity assessment method chosen, the consultant will need to develop a data collection form to rate and record the treatment integrity data. There are three parts of a treatment integrity data collection form: (a) a list of the intervention steps, (b) a space to rate each relevant treatment integrity dimension for each intervention step, and (c) instructions and a space to calculate the percentage of implementation. These three parts of the data collection form are described below.

A. The **list of intervention steps** should include the operational definitions developed as a part of Step 1. The list should also include relevant treatment integrity dimensions for each intervention step. For example, for a social skills intervention, adherence and quality are likely relevant for most intervention steps. But exposure might only be relevant for the overall implementation of the intervention. This information should be specified on the data collection form.

B. For each **intervention step**, an appropriate rating option must be determined for each relevant treatment integrity dimension. That is, if adherence and quality are applicable then a distinct rating is needed for both dimensions of treatment integrity. Possible rating options include checklists, Likert scales, multiple choice scales, and narrative response. The following table describes each of these ratings and their related strengths and limitations.

Ratings	What is it?	Strengths	Limitations
Checklist	Dichotomous rating of whether step did or did not occur	•Easy to develop, complete, and summarize	•May not account for the nuances of implementation or partial implementation
Likert scale	Range of ratings from full implementation to no implementation	•Relevant for all dimensions of treatment integrity •Relatively easy to develop, complete, and summarize	•Decision rules need to be developed about what counts as "full" versus "partial" implementation
Multiple choice	List of brief descriptions that correspond with different extents of implementation	•Relevant for all dimensions of treatment integrity •Specific behavioral markers may increase consistency of ratings, as opposed to more general ratings	•May be time consuming to develop as intervention steps may each require unique descriptions •Decision rules need to be developed about what counts as "full" implementation
Fill in the blank	Space for brief narrative in response to specific prompts/ questions	•Relevant for all dimensions of treatment integrity •Flexible format •Can account for nuances in implementation	•May be time consuming to develop and complete •Decision rules need to be developed about what counts as "full" implementation

The following table illustrates examples of each of these rating formats for the intervention step "provide behavior-specific praise when the student demonstrates safe behavior during circle time."

Ratings	Adherence	Quality	Exposure
Checklist	Checklist When the student demonstrated safe behavior during circle time, was behavior-specific praise provided? •Yes •No	Was the behavior-specific praise delivered immediately with enthusiasm and reference behavior expectations? •Yes •No	Was the student present throughout circle time? •Yes •No
Likert scale	When the student demonstrated safe behavior during circle time, was behavior-specific praise provided? •Implemented as planned •Implemented, but differently than plan •Not implemented	When provided, what was the quality of the behavior-specific praise? •Excellent •Good •Fair •Poor	When was the student present during circle time? •Throughout •More than 50% •Less than 50% •Never
Multiple choice	When the student demonstrated safe behavior during circle time, was behavior-specific praise provided? •Following 100% of opportunities •Following half or more of opportunities •Following less than half of opportunities •Not provided following opportunities •No opportunity	When provided, what quality indicators of praise were present? •Behavior-specific •Contingent •Reference behavior expectations	When was the student present during circle time? •Throughout •More than 50% •Less than 50% •Never

Fill in the blank	Student demonstrated safe behavior on ____ occasions. Behavior specific praise provided on ____ occasions.	Provide an example of the praise provided: _____	Circle time lasted for ____ minutes. The student was present for ___ minutes.

C. The last component of the data collection forms is **developing instructions and including space to calculate the percentage of implementation.** That is, from the form, you'll need to be able to calculate a quantitative summary of treatment integrity for a session.

There are two types of quantitative summary scores. The intervention step treatment integrity refers the extent to which specific intervention steps are implemented across sessions. Session treatment integrity can be calculated as the level of treatment integrity for each session. This type of summary form will help to summarize treatment integrity data across time and will inform decisions to provide additional support to the implementers or modify the intervention plan. The information summarized for these review meetings can be graphed, a topic that is described in Chapter 8.

Step 4: Develop a data collection plan

In the final step, the logistics of data collection are organized. Though it may seem that simply developing the treatment integrity form, as completed in steps 1-3, is sufficient, it is important to make sure that the logistics of data collection are clear and feasible. The planning for data collection includes (a) training an individual responsible for collecting the data; (b) determining the frequency of data collection; (c) establishing regular data review.

A. To ensure that the treatment integrity data are collected in an accurate and systematic manner as possible, training is necessary. That is, the data collector (e.g., implementer, school psycholo-

gist, consultant) will need to learn about the assessment method generally and the treatment integrity data collection form specifically. Depending on the data collector, it might be useful to provide background information about treatment integrity and the intervention itself. This training might include Direct Training (see Chapter 3 for a description of this process) as well as practice with another rater to ensure that both individuals are rating implementation similarly.

B. To decide how frequently to collect treatment integrity data, consider the situation and method of assessment. When reviewing the situation, consider the intensity of the intervention as well as the type of decisions that will be made based on the treatment integrity data. For interventions that have greater intensity (e.g., student is out of the classroom often, intervention requires substantial resources) assess treatment integrity more frequently. Likewise, if high-stakes decisions will be made based on the data (e.g., student intervention support, special education decisions, placement decisions), treatment integrity should be assessed frequently. The method of assessment likely will impact the decision about how frequently to assess data also. For instance, it is generally more feasible for an implementer to use a self-report method following each intervention session, than a consultant to observe an intervention session each day. If the chosen treatment integrity assessment method is self-report, it could be completed more frequently, as compared to direct observation.

PRIME Tip

Once the plan for how frequently treatment integrity data will be assessed is developed, make sure the logistical planning is in place. For example, you may develop a calendar of treatment integrity assessment dates with reminders or print copies of the treatment integrity data forms. The specifics may vary by method. For direct

observation, the data collector must learn the intervention schedule to ensure he or she is present during implementation. Make sure these logistical steps are considered and completed to ensure that treatment integrity assessment is completed as planned.

C. For data-based decision making, treatment integrity data must be regularly reviewed alongside progress monitoring data. The specifics of this review are described in Chapter 8 and 9 and materials to support this process are in Appendix I. For the purposes of developing a treatment integrity data system, the focus of this chapter, it is necessary to plan when treatment integrity assessment data will be reviewed. As with the frequency of data collection, the frequency of the data review will depend on the situation and intensity of the decisions made based on the data. Once the frequency of data review is established, make sure relevant stakeholders can be present for the meeting and that progress monitoring data are also available.

What Did I Learn About PRIME?

Treatment integrity data indicate how much of and how well an intervention is being implemented. It includes multiple dimensions, including adherence, quality, and exposure. The development of a treatment integrity tool involves four steps: identify intervention steps, choose an assessment method, select a data collection form, and develop a data collection plan. Through this process, you will create a treatment integrity tool(s) to gather implementation data. These tools can be subsequently used to make data-based decisions about student progress and the possible need for or effectiveness of PRIME Implementation Supports.

Chapter 5 Key Terms

Adherence

Exposure

Direct Observation

Intervention Step Treatment Integrity

Permanent Products

Quality

Self-report

Session Treatment Integrity

Progress Monitoring

What Will This Chapter Tell Me?

Progress monitoring is the regular collection and review of targeted student data. In the PRIME Model, progress-monitoring data are critical to understand if the intervention being is sufficiently implemented and if the student is making progress as a result of the intervention. This chapter describes progress monitoring, provides resources for progress monitoring measures, and explains key parts of how to progress monitor. After reading this chapter, you will be able to identify progress-monitoring resources and will understand the process of progress monitoring. This chapter offers an introduction only; additional resources will be necessary to be prepared to progress monitor the student intervention implemented within the PRIME Model.

What is Progress Monitoring?

Progress monitoring is the frequent, ongoing assessment of a student's progress toward the goals of the intervention. Progress monitoring data should be collected for any intervention. The primary purpose of progress monitoring is to document changes in student outcome(s) to measure goal attainment. If the intervention is being implemented as planned and the student outcome data

show an improvement, it is likely the intervention is effective. However, a different situation arises when student outcome data are not improving or are improving too slowly for the student to meet their goal within the recommended time period. In these situations, progress-monitoring tools can also be used to inform when it is necessary to modify the intervention plan and when the consultant should provide additional implementation support to the implementer (see Chapter 9 and Appendix I).

Progress Monitoring Resources

Specific progress monitoring tools vary by the student outcome targeted in the intervention, supporting research, and what is feasible for the implementation context. Progress monitoring tools should be brief and feasible to administer on a regular basis with minimal disruption to classroom instruction. Common progress-monitoring tools for academic goals include curriculum-based measures while tools for behavior goals include direct observation and direct behavior ratings.

Several national databases have been established on the Internet to help educators find and use progress-monitoring tools. A list of some of the databases is provided in the table below. These resources provide basic information (e.g., technical adequacy, implementation requirements) about numerous progress-monitoring tools. We suggest that consultants and other stakeholders use these and other evidence-based resources to identify appropriate progress-monitoring tools to monitor a student's response to intervention.

Website	Detail
www.aimsweb.com	Information and resources for AIMSweb, a progress monitoring system that includes direct assessment measures and a data management system
http://dibels.uoregon.edu/	Information and resources for Dynamic Indicators of Basic Early Literacy Skills (DIBELS), brief literacy and reading fluency measures, and a data entry system
www.interventioncentral.org	Information on available curriculum-based measures and other resources for implementing progress-monitoring systems, such as data collection forms and graphing
http://www.studentprogress.org/	Information on progress monitoring and links to progress monitoring methods; maintained by the National Center on Student Progress Monitoring, funded by the U.S. Department of Education, Office of Special Education Programs
http://www.rtinetwork.org/	Information and resources for implementing Response-to-Intervention, including ongoing student assessment areas of universal screening, progress monitoring, and data-based decision making
http://www.intensiveintervention.org/	Information and resources for implement Response-to-Intervention, including information on progress monitoring and a progress monitoring methods chart
http://www.directbehaviorrating.org/	Information and resources on Direct Behavior Ratings (DBR), including sample measures

How to Progress Monitor

The follow section introduces key parts of how to progress monitor, including (a) defining the issue of concern, (b) choosing an assessment measure, (c) collecting baseline data, (d) setting an intervention goal, and (e) administering the measure regularly.

Define Issue of Concern

Before you can choose a particular assessment measure, it is necessary to develop an initial definition of the issue of concern. That is, what is the specific academic or behavioral issue that needs to be addressed by an intervention? The issue of concern should be defined as specifically as possible. For instance, the specific issue of concern for a student might be "reading fluency" as opposed to simply "reading." In another example, the specific issue of concern for a classroom might be "following directions the first time during transitions" as opposed to simply "transition difficulty." Tentatively define the topography (i.e., what it looks like) of the issue of concern, using observable and measurable terms (e.g., frequency, rate of correct responding, duration, latency, and topography). To do so, interview the implementer, review previously collected products or data, and observe, if necessary. When interviewing the implementer, use questions from problem-solving consultation to identify what the issue "looks like" (see Prerequisite Guide for additional information). That is, ask the implementer when the issues take place, what they look like, and what happens after the issues. Review previously collected products that provide data, such as academic screening measures, completed assignments, or report cards, to identify information that might further support the definition of the behavior. If interviews and data review are not sufficient for defining the issue of concern, complete brief observations of the student(s) to define the behavior appropriately.

Choose Assessment Measure

Assessment measures to progress monitor can be found on the websites listed in the above table. Although we do not suggest particular progress monitoring methods, we suggest a number of factors to consider when selecting a progress monitoring measure. First, consider how the data will be used in a problem-solving process. Some types of assessments were designed for particular purposes and can only be administered at certain time intervals that would not allow for frequent measurement of a behavior or skill. Second, consider the match between the issue of concern and the dimension measured during progress monitoring (e.g., frequency, rate of correct responding, duration, latency, and topography). The method that is selected should be able to provide relevant information for the dimensions of interest on the target outcome. Third, make sure the progress-monitoring method has been previously validated with students who are similar in demographics and school context to the target student(s) who will be monitored. For instance, if the intervention is academic, whether the issue of concern is at instructional level or grade level, should also be taken into account. Fourth, account for the resources that will be available to collect progress-monitoring data with the student (e.g., time, training, cost). Remember, progress-monitoring measures should be feasible to use over the entire implementation period and have minimal interruptions to instructional time. Finally, progress-monitoring measures should be valid, reliable, and sensitive to changes that might result from implementation of the intervention. Technical adequacy is key to making appropriate data-based decisions.

Collect Baseline Data

Once an assessment measure for progress monitoring is identified, collect baseline data. The specific type of assessment measure may have a specific suggested number of times that baseline data should be collected. In general, between three to five data points are

an appropriate number of data points for baseline. Overall, it is most important that baseline data are stable. That is, the student's performance is consistent across the baseline data. Consistent data will ensure you have an accurate understanding of the student's performance and will be able to compare the baseline data to progress after the intervention is put in place.

Use these data to further refine the issue of the concern, as appropriate. That is, make the definition of the issue of concern precise using baseline data. For instance, instead of "reading fluency" the issue might be defined as "reading at a rate of X words per minute." In another example, "following directions the first time during transitions" could be defined as "following teacher directions within 15 seconds of their delivery during transitions."

Set Intervention Goals

An intervention goal is the level of student performance expected at end of the progress-monitoring period. To set an intervention goal, the consultant and implementer collaboratively determine how the student should be performing after implementing the intervention for a period of time. What is the desired level of progress? Several pieces of information can be used to set an intervention goal including (a) the student's baseline data; and (b) national norms for a specific measure, local norms, a criterion level of performance, a grade level goal, and/or peer comparison data, which inform what level of performance should be expected.

To set an intervention goal, identify (a) the student's current level of performance, (b) a desired level of performance for the student, and (c) the date by which the student should reach or exceed that level of performance. The inclusion of a date for intervention goal attainment is necessary to determine the rate of improvement (i.e., an aim line) the student needs to maintain to achieve his/her goal. During progress monitoring, this rate can be compared to the student's actual rate of progress to determine the most appropriate

intensity of intervention. How to graph and review the expected and actual rates of progress is described in Chapter 8.

Write the intervention goal as a measurable statement. That is, the goal should be worded as a way to measure improvement toward a goal level for the student. Indicate what the student will gain during this period, rather than describing what will decrease. A written intervention goal that is measurable will help with the next step in preparing for progressing monitoring, that is, selecting an assessment measure. Once an assessment measure has been chosen, it may be appropriate to revise and specify the intervention goal so that the goal and measure are directly linked.

Administer Assessment Regularly

Once an intervention goal is written and a progress-monitoring measure is selected, the measure should be regularly administered. To make sure this task is done consistently, identify the logistics and a schedule for regular data collection. Similar to treatment integrity assessment, planning for progress-monitoring data collection includes (a) training an individual responsible for collecting the data; (b) determining the frequency of data collection; and (c) establishing regular data review. Make sure the person responsible for regular collecting progress-monitoring data has experience with the progress-monitoring measure and is prepared to accurately administer the measure. Provide any training necessary. Decide how frequently data will be collected. As with treatment integrity assessment, it may be appropriate to more frequently monitor interventions that are intensive (e.g., student is out of the classroom often, intervention requires substantial resources). Last, create a plan for regular data review. The specifics of this review are described in Chapters 8 and 9. In particular, make sure to decide when progress-monitoring data will be reviewed. These steps should ensure that progress-monitoring data are collected and evaluated regularly.

What Did I Learn About PRIME?

Progress monitoring is the frequent, ongoing assessment of a student's progress toward the goals of the intervention. In the PRIME Model, progress-monitoring data can be integrated with treatment integrity data to make decisions about intervention effectiveness, and when to provide additional support to the implementer. This chapter provided an introduction to progress monitoring, but educators will need to consult other resources to be prepared to progress monitor. The chapter included several resources for additional information, as well as described the general process for how to progress monitor.

Chapter 6 Key Terms

Progress Monitoring

Implementation Beliefs Assessment Data

What Will This Chapter Tell Me?

Implementers' beliefs about interventions and their ability to implement can impact their ability to deliver an intervention consistently. Within the PRIME model, the Implementation Beliefs Assessment (IBA) can be used to evaluate implementer's beliefs and target appropriate PRIME Implementation Supports. The purpose of this chapter is to describe the IBA. In addition to explaining the IBA generally, this chapter explains how and when to administer the assessment as well as how to score and interpret it.

What is the Implementation Beliefs Assessment (IBA)?

The IBA is a questionnaire, to be completed by the implementer, to assess his or her perception of an intervention as well as his or her ability to implement it. To complete the IBA, the implementer rates the extent to which he or she agrees or disagrees with statements about implementation. The one-page, 19-item IBA can be found in Appendix H.

The IBA includes questions about two main areas: outcome expectations and self-efficacy. Outcome expectations refer to how effective the implementer believes the intervention will be for the target student(s). Self-efficacy refers to the implementer's belief in his or

her ability to deliver the intervention to the student in the short- and long-term. Self-efficacy is broken into three different types that are described below. Together, outcome expectations and self-efficacy are key components of the HAPA model (see Chapter 1) and have been shown to influence individuals' ability to change their behavior. That is, if you feel confident in your ability to do something and you believe that consistently doing it will lead to a positive outcome, you are more likely to do it consistently.

The Outcome Expectations subscale includes items designed to evaluate an implementer's beliefs about how effective the intervention will be in helping student reach the intervention goals. An implementer with more positive outcome expectations is more likely to implement with adequate treatment integrity. The logic is that if the implementer is engaging in an intervention that he or she believes will help the student, he or she will be more engaged with the intervention and more likely to implement it consistently. Conversely, if an implementer has low outcome expectations, he or she may be less likely to consistently implement an intervention, because he or she does not see the intervention as helpful.

Sample items from the Outcome Expectations subscale of the IBA include:
- As a result of this intervention, the student will perform better in school.
- This intervention will benefit the student.

The Self-Efficacy subscale includes items related to three types of self-efficacy that are important for implementing an intervention effectively across time:
- Implementation self-efficacy is an implementer's confidence in performing the intervention steps. This aspect of performance is considered an important component of being ready and motivated to implement an intervention. That concept

makes sense; believing you can do something makes it more likely that you will do it.

- Maintenance self-efficacy is an implementer's confidence in continuing to implement the intervention steps over time. That is, a teacher may be confident in implementing the intervention steps immediately, but may be less confident in her ability to continue to implement the intervention consistently over the course of the school year.
- Recovery self-efficacy is an implementer's confidence in resuming implementation of the intervention steps after an interruption. For example, a teacher may feel confident in implementing an intervention during the fall, but may be unsure of her ability to resume the intervention right away after the winter break. This perspective makes sense because it is easier to sustain an intervention when it is part of a routine, but more difficult to resume an intervention once that routine has been interrupted.

Sample items from the Self-Efficacy subscale of the IBA include:
- Implementation Self-Efficacy: I have the ability to implement each component of this intervention.
- Maintenance Self-Efficacy: I can sustain intervention implementation.
- Recovery Self-Efficacy: I am capable of resuming implementation of this intervention.

Used in conjunction with treatment integrity data, the results of the IBA provide information that can be used to determine if an implementer might benefit from a support strategy and, if so, which strategies may be most effective (see Chapter 9)

How to Administer the IBA
The IBA should be administered several times throughout implementation. At least, it is recommended that the IBA be administered

at the following time points:
- Before providing PRIME Implementation Supports to target strategy selection (see Chapter 9);
- Immediately following the delivery of any PRIME Implementation Supports;
- Two to four weeks after the delivery of any PRIME Implementation Supports.

PRIME Tip

Have the implementer complete the IBA several times throughout treatment implementation to provide useful information about how the implementer is feeling about both the effectiveness of the intervention and his or her confidence in delivering the intervention. The results can then guide you when determining whether an Implementation Support Strategy is necessary and in choosing the most effective strategy to use.

Multiple administrations of the IBA will ensure that you have current information about the implementer's beliefs about implementation and can therefore determine if implementation supports are necessary.

When administering the IBA for the first time, meet briefly with the implementer to describe the purpose of the IBA and how it should be completed. To describe the purpose, tell the implementer you are interested in learning about their thoughts about the intervention and their experience with its implementation. Let the implementer know that the ratings will only be used to identify the best way to support their implementation toward the larger goal of improving student outcomes, so it is best to be honest when responding to items. It is not necessary to describe the measure in detail as that may influence the implementer's ratings. To describe how the IBA should be completed, tell the implementer to rate each of the 19 items on a 7-point Likert scale from 1= completely disagree to 7 = completely agree.

How to Score the IBA

As noted above, the IBA is broken down into two areas: Outcome Expectations and Self-Efficacy, allowing for the calculation of two subscales.

To calculate the two subscale scores, average the scores of the items on each scale. The Outcome Expectations subscale includes 4 items, while the Self-Efficacy subscale includes 15 items. For each subscale, add the scores for each item together and divide by the number of items within the subscale to get the mean score for that subscale. See Appendix H for IBA Worksheet.

Once mean subscale scores have been obtained, the IBA can be used, along with the treatment integrity data, to identify if PRIME Implementation Support is needed and, if so, which support will be most useful to improve implementation. This process is described in detail in Chapter 9.

What Did I Learn About PRIME?

The IBA is a tool that can be used to evaluate how confident an implementer feels with regard to the effectiveness of an intervention (i.e., Outcome Expectations subscale) as well as his or her confidence in his or her ability to implement that intervention (i.e., Self-Efficacy subscale). The IBA is a brief questionnaire that can be administered multiple times throughout the implementation of an

intervention. The results of the IBA can then be used, in part, to determine whether the implementer would benefit from an Implementation Support Strategy and which Implementation Support Strategy would be most useful.

Chapter 7 Key Terms
Implementation Beliefs Assessment
Implementation Self-Efficacy
Maintenance Self-Efficacy
Outcome Expectations
Recovery Self-Efficacy
Self-Efficacy