

PART 1

PRIME Overview

PRIME (that is, *Planning Realistic Implementation and Maintenance by Educators*) is a system of tiered supports designed to promote implementation of evidence-based interventions. To provide an overview of PRIME, this section includes two chapters. Chapter 1, *Introduction to PRIME*, describes the foundational basis of PRIME and orients you to the PRIME Manual and other supporting materials. Chapter 2, *How to Use PRIME*, introduces PRIME implementation supports and data sources that are described in detail in later chapters. In addition, this chapter provides an overview of the process of using PRIME to support intervention implementation within indirect service delivery (e.g., consultation, coaching).

Through reading this section, you will learn the conceptual basis of PRIME, understand the organization of PRIME materials, and be oriented to the major features and process of delivering PRIME.

CHAPTER 1

Introduction to PRIME

What Will This Chapter Tell Me?

Many educators struggle to consistently implement evidence-based interventions that are designed to improve student outcomes. School-based consultants (e.g., school psychologists, team leaders) can help educators deliver these interventions by assessing treatment integrity and providing implementation supports when needed. To help this process, PRIME (that is, *Planning Realistic Implementation and Maintenance by Educators*) was designed and evaluated as a continuum of implementation supports that can feasibly and effectively be delivered in schools. This chapter introduces treatment integrity, PRIME, and the theory behind PRIME. The chapter closes with a description of the intended audience for PRIME, the skills needed to use PRIME, and the organization of the PRIME Manual. After reading this chapter, you will be able to describe treatment integrity and PRIME supports, identify the theoretical background of PRIME, and highlight who is the right person to implement PRIME in your setting.

What is Treatment Integrity?

Before explaining PRIME, let's review what treatment integrity is. Treatment integrity can simply be described as the extent to which an intervention is implemented as planned. Researchers describe

treatment integrity as a multi-dimensional construct including adherence, quality, and exposure. That definition means treatment integrity may incorporate different dimensions such as what intervention components were delivered (i.e., adherence), how intervention components were delivered (i.e., quality), and for how long the student received the intervention (i.e., exposure). See Chapter 5 for more detail about treatment integrity and its dimensions.

So, why is it important to support educators' implementation of interventions? Over the past two decades, researchers and practitioners have worked to identify and adopt evidence-based interventions to support student outcomes. Though evidence-based interventions have a greater likelihood of achieving positive student outcomes (as compared to other interventions), their identification and adoption alone is not sufficient. Interventions have to be implemented with a high level of *treatment integrity* to maximize student outcomes. However, studies show that most implementers struggle to consistently deliver interventions as planned. In fact, most implementers don't sustain adequate levels of treatment integrity for more than 1-10 days after an intervention begins. That means, many students are not actually receiving the evidence-based interventions that educators and school teams determine are necessary for them to grow, develop, and achieve positive outcomes.

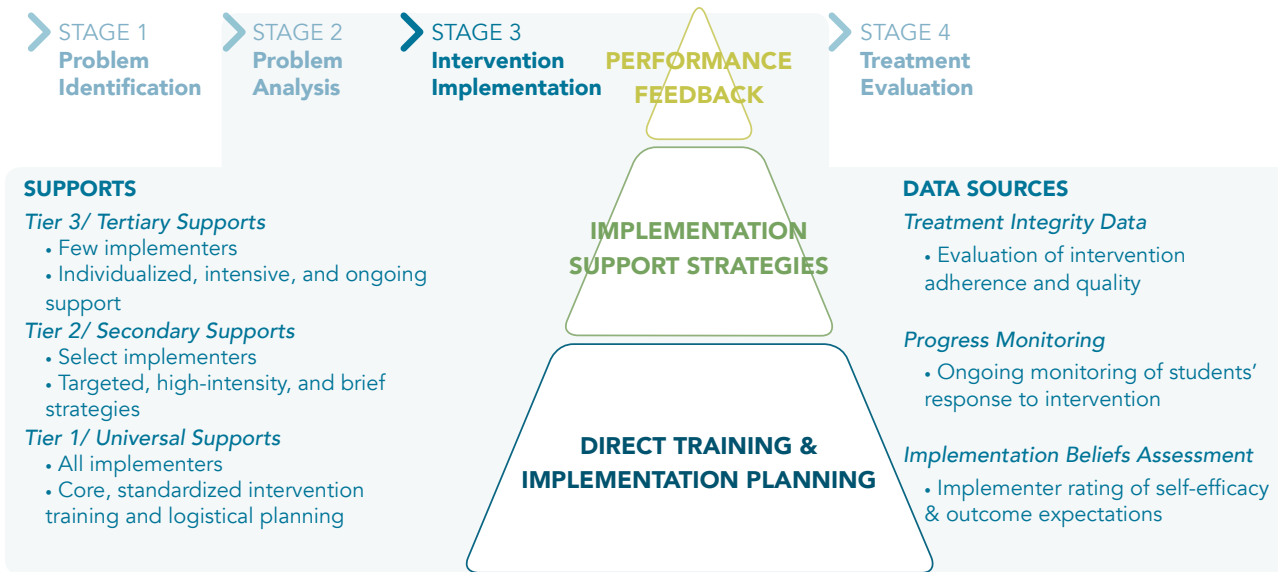
Although this relationship to student outcomes is likely the most important reason to evaluate and promote treatment integrity, there are other reasons it's important. Evaluating treatment integrity is necessary to determine the functional relationship between an intervention and changes in student outcomes. That is, with treatment integrity data you will be able to say whether the intervention is responsible for improvement in student outcomes. This issue is particularly important within multi-tiered frameworks such as Response-to-Intervention and Positive Behavior Interventions and Supports, in which a student's response to an evidence-based intervention determines the level of support he or she receives. Within

these frameworks, collecting treatment integrity data helps to ensure interventions are provided as designed across the tiers and, as such, decisions to increase or decrease supports are appropriate. Treatment integrity can also be important for documentation purposes. Documenting treatment integrity data provides a record of any adaptations to an intervention or any problems with implementation, which may inform future intervention decisions. Further, increasingly educators are expected to document treatment integrity data to demonstrate that students received interventions and supports to which they were entitled. That is, treatment integrity data help educators demonstrate accountability.

Assessing treatment integrity, making data-based decisions based on student outcome and treatment integrity data, and promoting treatment integrity levels as needed are foundational within the PRIME Model, which is discussed next.

What is PRIME?

It's clear that for interventions to optimally promote student learning, we need strategies to support educators' implementation of interventions. PRIME is a system of implementation supports designed to be efficiently delivered within a multi-tiered framework during intervention implementation (see Figure below). It includes feasible universal implementation supports to facilitate high initial levels of treatment integrity as well as increasingly intense and targeted implementation supports to respond to potential decreases in treatment integrity. Within PRIME, decisions to deliver implementation supports are data-driven, based on treatment integrity data and progress monitoring data as well as a measure of the implementer's perspective, the Implementation Beliefs Assessment. The specific PRIME components and process are further described in Chapter 2.



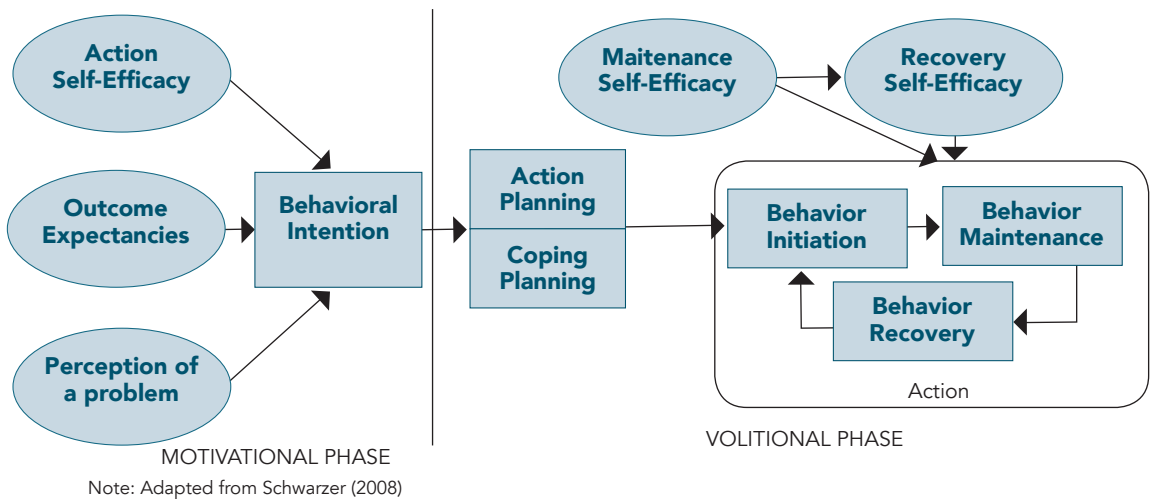
The development of PRIME was informed by research on treatment integrity and an evidence-informed theory of adult behavior change from health psychology, the Health Action Process Approach (HAPA). In addition, prevention science, behavioral theory, consultation, and coaching literatures informed the organization and components of the PRIME Model. PRIME Implementation Supports have been rigorously evaluated and refined based on research results. These findings indicate that PRIME can increase educator’s delivery of evidence-based interventions and result in subsequent improvement in student outcomes. Further, these implementation supports are feasible within an indirect service delivery model (e.g., consultation) and were described as valuable and helpful by educators.

To provide further background and context for PRIME, the following section explains the theoretical support for PRIME.

What is HAPA Theory?

PRIME is based on the HAPA, a theory of adult behavior change from the health psychology literature. Implementation of the majority of school-based interventions requires adults to commit to

behavior change. For example, to implement a behavior support plan, a teacher must remember to review behavior expectations during circle time, praise and provide a ticket when the student demonstrates appropriate behavior, and deliver a back-up reinforcer when earned. Just these three steps require the teacher to incorporate a lot of new behaviors into his or her everyday routine. Thus, promoting high levels of treatment integrity can be thought of as an adult behavior change activity or process.



The HAPA model describes how adults engage in this behavior change (see Figure above). Before people change their behavior, they need to be motivated to do so. This process of developing a behavioral intention is captured in the Motivational Phase of the HAPA model. Three variables are considered to play a role in this process: (a) perception of a problem that needs to be addressed; (b) outcome expectancies, beliefs about the positive and negative outcomes of alternative behaviors; and (c) action self-efficacy, one's confidence in being capable of performing a difficult or novel behavior. But intention alone does not change behavior and the process of how

people actually initiate and maintain a new behavior is captured in the Volitional Phase of the HAPA model. New behaviors are promoted by planning, as completed through Action and Coping Planning, as well as adequate maintenance and recovery self-efficacy, one's confidence in being capable to implement over time and after disruption, respectively. Research in health psychology has demonstrated that Action and Coping Planning can facilitate initiation of a new behavior, and that individuals with higher levels of self-efficacy are more likely to sustain the behavior.

The HAPA model informed the development PRIME in several ways. First, PRIME addresses treatment integrity from the development of an intention to implement to maintenance of the implementation behaviors. Second, a key hallmark of the PRIME Implementation Supports is Implementation Planning, which combines Action and Coping Planning from the HAPA model. Third, the Implementation Beliefs Assessment includes items that address the variables described in the HAPA model. Based on this assessment, treatment integrity data, and student outcome data, consultants may provide targeted implementation support to address specific areas of difficulty per the HAPA model.

Who Should Use the PRIME Manual?

School-based consultants acting as individuals or as members of a problem-solving team are the primary targets for delivery of PRIME Implementation Supports. We use the term “consultant” broadly to refer to any individual who uses a problem-solving model to help an implementer (e.g., teacher, parent, paraprofessional) provide evidence-based intervention or supports to a child or adolescent. A consultant could be, for example, a school psychologist, counselor, team leader, special education teacher, or instructional coach. In addition, outside consultants who support educators with an indirect problem-solving approach may also find the PRIME useful.

Not every school-based consultant will be well-suited to deliver PRIME Implementation Supports. PRIME activities are designed to

be implemented within an indirect problem-solving framework and to facilitate the delivery of evidence-based interventions. As such, we expect that consultants who implement PRIME have expertise in both of these areas. To be more specific, a consultant who can effectively implement PRIME will be able to:

- Use an indirect service delivery approach,
- Select appropriate evidence-based interventions,
- Implement evidence-based interventions, and
- Conduct intervention evaluation.

To gain skills and experiences in these areas, consultants will likely need didactic and applied, supervised training in consultation and evidence-based interventions. Although the PRIME Manual and PRIME Prerequisite Guides include introductions to these areas of expertise, it is not sufficient preparation for implementing PRIME. Once further training is accessed, consultants will be prepared to use the PRIME Manual to deliver Implementation Supports.

How is the PRIME Manual Organized?

The PRIME Manual is divided into six parts, with each part including specific chapters, and a section of appendices. These sections are described below.

- *Part 1: PRIME Overview* provides an introduction to PRIME, its key components, and how to implement PRIME.
- *Part 2: Tier 1 Supports* includes a description of the foundational PRIME Implementation Supports that can be used prior to intervention implementation to facilitate high levels of treatment integrity.
- *Part 3: Collect Data* explains best practices in data collection, analysis, and decision-making processes for treatment integrity, progress monitoring, and the Implementation Beliefs Assessment data.
- *Part 4: Analyze Progress* describes how to pull together treatment integrity, progress monitoring and Implementation Beliefs Assessment data through graphing and interpretation.

- *Part 5: Identify Next Steps* explains how to review treatment integrity and progress monitoring data to determine the current implementation situation and make data-driven decisions about next steps.
- *Part 6: Tier 2 and 3 Supports* describes the additional multi-tiered PRIME Implementation Supports that can be used when available data suggest treatment integrity promotion is needed.

The final section of the manual is a collection of appendices including a glossary, selected references, frequently asked questions, and the materials necessary to implement PRIME. These materials are referred to throughout the PRIME Manual and include Implementation Support protocols and treatment integrity guides.

All chapters in the PRIME Manual are organized in the same format. Chapters open with the section “What Will This Chapter Tell Me?” to provide a brief overview of the content and explain how it fits into the PRIME manual. Throughout the chapters, content is highlighted in boxes called “Tips for Using PRIME” and “Key PRIME Points.” These boxes describe suggestions for your consultation and points of importance and/or clarification, respectively. Chapters close with the section “What Did I Learn About PRIME?” that summarizes the chapter content. All subsequent chapters also include a list of key terms.

In addition to the chapters within this manual, there are several companion documents that may be useful:

- A *Quick Guide* provides a brief overview of the specifics of how to utilize PRIME Implementation Supports.
- *Prerequisite Guides* provide more background information on:
 - Choosing an evidence-based intervention
 - Problem-solving consultation
- *PRIME Case Examples* illustrate the process and components of PRIME through two example cases.

What Did I Learn About PRIME?

Evidence-based interventions need to be implemented with adequate treatment integrity to improve student outcomes. Many educators struggle to implement interventions with adequate treatment integrity. PRIME is a system of multi-tiered implementation supports to improve educators' treatment integrity. The development of PRIME was informed by research on treatment integrity and a research-based theory of adult behavior change from health psychology, the Health Action Process Approach. PRIME is to be delivered by school-based consultants who have experience with indirect-service delivery and intervention selection, implementation, and evaluation. The PRIME Manual includes multiple sections that introduce PRIME; describe intervention training as well as data sources and data-based decision making; describe implementation supports; and provide materials needed to deliver PRIME.

Chapter 1 Key Terms

Intervention

Consultant

Health Action Process Approach

Implementer

Multi-tiered systems of support

PRIME

Treatment integrity

CHAPTER 2

How to Use PRIME

What Will This Chapter Tell Me?

PRIME is designed to support the process of intervention implementation. To do so, PRIME includes three levels of multi-tiered Implementation Supports that provide proactive, targeted, and ongoing treatment integrity support, respectively. You use three data sources—treatment integrity, progress monitoring, and the Implementation Beliefs Assessment—to appropriately deliver these Implementation Supports. The purpose of this chapter is to introduce PRIME Implementation Supports and suggested data sources. In addition, the chapter describes how these supports and data sources are applied during intervention implementation. After reading this chapter, you will be able to describe PRIME Implementation Supports, identify PRIME data sources, and describe the process of using PRIME to provide implementation support.

What are PRIME Implementation Supports?

Within PRIME, research-based Implementation Support strategies are organized into three levels. At Tier 1, proactive and feasible Implementation Support strategies, Direct Training and Implementation Planning, are recommended for all implementers. At Tier 2, a series of four strategies are designed to increase inter-

vention implementation knowledge, fluency, and/or motivation for select implementers who struggle to implement adequately after Tier 1 supports. At Tier 3, Performance Feedback is designed to increase intervention implementation of those few implementers who require ongoing, intensive implementation support. These PRIME Implementation Supports are described below.

Tier 1 Implementation Support

PRIME Tier 1 Implementation Support includes Direct Training and Implementation Planning. These supports can be delivered together before intervention implementation begins to facilitate high levels of implementation. Direct Training and Implementation Planning may also be delivered separately (e.g., only Implementation Planning) or during ongoing intervention implementation.

Both Direct Training and Implementation Planning involve a meeting between a consultant and the implementer. Direct Training aims to increase the implementer's preparation for and confidence regarding implementation by teaching him or her how to deliver the intervention with high levels of treatment integrity (see Chapter 3). Specifically, a Direct Training session consists of didactic training on intervention steps, followed by modeling, practice, and feedback with the implementer. Implementation Planning also aims to increase preparation for implementation (see Chapter 4). This goal is not met through training; rather Implementation Planning involves logistical planning for each intervention step as well as identifying and problem-solving potential barriers to implementation.

Tier 2 Implementation Support

PRIME Tier 2 strategies are designed to increase the implementer's intervention delivery knowledge, fluency, and/or motivation. The PRIME strategies at Tier 2 are appropriate for those implementers who struggle to deliver an intervention as planned after receiving Tier 1 implementation support and may benefit from the delivery of

one or more of the Implementation Support strategies.

PRIME Tier 2 Implementation Support strategies include Participant Modeling, Role Play, Raising Awareness, and Motivational Consulting (see Chapters 10-13). Participant Modeling involves reviewing intervention steps and then modeling, guided practice, and independent practice within the implementation context (e.g., classroom). Role Play incorporates modeling and practice of several intervention implementation scenarios outside of the implementation context. Raising Awareness is a talking strategy that focuses on the implementer's perception of the intervention, its effectiveness, and implementation. Motivational Consulting involves reviewing the student intervention goals and using Motivational Interviewing techniques such as change talk and positive regard to increase the implementer's motivation to increase their implementation across time.

Tier 3 Implementation Support

PRIME Tier 3 includes an intensive and ongoing implementation support, Performance Feedback (Chapter 14). This support is appropriate for the implementers who struggle to deliver an intervention and whose treatment integrity does not improve following less intensive implementation supports (Tiers 1 & 2). Performance Feedback can be delivered only once, but more than likely it may be deemed necessary on an ongoing basis (e.g., daily, weekly, when treatment integrity data fall below a criterion).

Performance Feedback involves a meeting between the consultant and implementer to discuss treatment integrity and progress monitoring. In addition, the consultant reviews difficult implementation steps and collaboratively problem solves to address challenges to implementation. In this way, the meeting provides feedback to the implementer about his or her treatment integrity as well as provides an opportunity for discussion and problem-solving.

What are the PRIME Data Sources?

PRIME is designed to promote intervention implementation and facilitate positive student outcomes. To do so, ongoing data streams from three sources – treatment integrity, progress monitoring, and the Implementation Beliefs Assessment – are needed. These data sources are described in Chapters 5 to 7 and are reviewed below. In addition, Chapter 8 explains how to graph and interpret data, while Chapter 9 describes how to make data-based decisions using these data sources.

Treatment Integrity

Treatment integrity data indicate the extent to which an intervention is implemented as planned. Within the PRIME model, treatment integrity can provide two types of information. First, treatment integrity data can be used alongside progress-monitoring data to ensure the intervention is implemented as designed and, as such, it is appropriate to make decisions about the intervention. Second, treatment integrity data can be used to evaluate the effectiveness of PRIME Implementation Supports. That is, does the delivery of a PRIME Implementation Support (e.g., Implementation Planning, Participant Modeling, Performance Feedback) increase the implementer's treatment integrity? Chapter 5 further describes treatment integrity as a construct and how to develop a treatment integrity assessment system.

Progress Monitoring

Progress-monitoring data indicate how the student is progressing toward the goals of the intervention. Progress-monitoring data should be collected prior to the intervention to establish a baseline as well as regularly collected during intervention implementation. The type of progress-monitoring data collected will differ depending on the student intervention target and intervention goal. Progress-monitoring data, alongside treatment integrity data, are

critical to evaluate the intervention. Chapter 6 further describes progress-monitoring data and includes several internet resources to identify appropriate progress-monitoring tools.

Implementation Beliefs Assessment

The Implementation Beliefs Assessment (IBA) is a self-report measure to indicate an implementer's perceptions of the intervention and his or her ability to implement the intervention. Research results suggest that implementers who have low outcome expectations and/or self-efficacy have difficulty starting to implement and maintaining implementation over time. Within the PRIME model, IBA data are used, alongside treatment integrity data, to target appropriate PRIME Implementation Supports. Chapter 7 further describes the IBA and its constructs, and how to administer the measure and evaluate the resulting data.

How Does PRIME Work?

PRIME is to be delivered within an indirect problem-solving model. The process is indirect because a consultant (e.g., a school psychologist, instructional coach) supports another implementer (e.g., a teacher, parent) who implements the intervention plan with the student. In other words, the consultant him- or herself does not intervene with the target student. Rather, the consultant helps the implementer identify and evaluate the student problem, determine an evidence-based intervention plan that addresses the problem, implement the intervention plan, and evaluate the intervention implementation and student progress.

Studies to evaluate PRIME Implementation Supports occurred within Problem-Solving Consultation (also called Behavioral Consultation). It may also be delivered within the context of other evidence-based, indirect problem-solving models, such as School Consultation, Conjoint Behavioral Consultation, and Instructional Coaching.

Four distinct phases are found across nearly all problem-solving models. In the first phase, Problem Identification, the consultant and implementer define the specific problem to be addressed, collect initial baseline data and develop an intervention goal. In the second phase, Problem Analysis, the consultant will identify an intervention to address the problem and reach the intervention goal. PRIME is relevant at the end of this phase and continues to the third phase, Intervention Implementation, in which the implementer delivers the plan. In Intervention Evaluation, the consultant and implementer review goal attainment, treatment integrity data, and plan effectiveness. These phases are detailed in the PRIME prerequisite guide Problem-Solving Consultation and described more specifically below.

Problem Identification

During Problem Identification, the consultant and implementer identify the area of primary concern through interviews and progress monitoring data. For example, a consultant and teacher may identify that a student engages in off-task behavior during independent seatwork in math class. Further evaluation may include math curriculum-based measures (CBM) and behavior observations. The consultant and implementer will also identify an intervention goal for the student. That is, they will develop a shared description of the desired student improvement following intervention. This intervention goal should be linked to the progress monitoring measure identified during baseline. To continue the example, the consultant and teacher may decide on a specific level on a math CBM or a percentage of intervals with on-task behavior as a goal for the intervention. Progress monitoring data collection and reference to the intervention goal will continue throughout the following phases.

Problem Analysis

During Problem Analysis, the consultant will review the initial or baseline data to develop a hypothesis for the current level of func-

tioning or behavior. As noted above, baseline data collection may include math CBM and behavior observations. To continue the example from above, the baseline data may indicate that the current level of math work is too easy for the student or that he likely engages in off-task behavior for peer attention. Based on the identified hypothesis, an evidence-based intervention that is appropriate for the student and context should be selected. Additional information about identifying an appropriate intervention can be found in the PRIME prerequisite guide, *Selecting Evidence-Based Interventions*.

PRIME activities begin during the Problem Analysis phase. Specifically, the consultant will need to identify or develop a treatment integrity measure and create a data collection and review plan. Relatedly, a plan to continue to deliver the progress-monitoring measure and regularly provide the IBA will need to be established. These data collection procedures are described in Chapters 5, 6, and 7. In addition to developing a data collection and review plan, a consultant can provide Tier 1 Implementation Support(s) to facilitate high initial levels of treatment integrity. These supports include Direct Training and Implementation Planning, which target intervention knowledge and logistics, respectively. These Tier 1 Implementation Supports are described in Chapters 3 and 4. To document the regular data review and provision of PRIME Implementation Supports, use the PRIME Intervention Implementation Tracking Form (Appendix D).

Intervention Implementation

During Intervention Implementation, the implementer will begin to deliver the intervention to support the student. PRIME activities occur throughout this phase. Specifically, treatment integrity, progress monitoring, and IBA data collection will occur per the identified data collection plan. These data can then be graphed, interpreted, and used to make decisions (see Chapters 8 and 9). Continue to document these data on the PRIME Intervention Implementation

Tracking Form (Appendix D) and the Data-Based Decision Worksheet (Appendix I).

During this phase, data may indicate that additional PRIME Implementation Supports are needed to help the implementer deliver the intervention with adequate treatment integrity. Chapter 9 describes how to make this data-based decision and identify an appropriate implementation support. In general, implementers will likely warrant Tier 1 and Tier 2 Implementation Supports, possibly more than once, before receiving Performance Feedback (Tier 3). What strategies are provided and how frequently they are delivered depends on the specific intervention context as well as treatment integrity and IBA data. Again, Chapter 9 provides a detailed description of how to select a PRIME Implementation Support.

To appropriately provide an Implementation Support, the consultant can review the General Strategy Guide that includes suggestions for preparation, delivery, and follow up (see Appendix E). The consultant should also review the appropriate PRIME Manual chapter, use the PRIME Implementation Support protocol to guide the meeting, and complete the Implementation Support treatment integrity measure after the meeting. The Implementation Support protocols and treatment integrity measures are included in the appendices.

Intervention Evaluation

After the intervention has been implemented for a period of time, during Intervention Evaluation, the consultant and implementer meet to discuss overall student progress and evaluate the intervention. At this time, it may be appropriate to change, modify, or fade the intervention depending on the student's progress and intervention process.

What Did This Chapter Tell Me?

The PRIME Model includes three tiers of treatment integrity support organized from:

- Least intensive, proactive supports to
- Targeted implementation support strategies to
- Intensive and ongoing implementation support strategy.

These Implementation Supports are applied through the use of information gained from three data sources – treatment integrity, progress monitoring, and the IBA. The process of PRIME occurs within an indirect, problem-solving approach that occurs in four phases. After Problem Identification and initial data collection in the Problem Analysis phase, PRIME activities begin and proceed through Intervention Implementation until Intervention Evaluation.

Chapter 2 Key Terms

Direct Training

Implementation Beliefs Assessment

Implementation Planning

Indirect Service Delivery

Intervention Evaluation

Intervention Implementation

Motivational Consulting

Participant Modeling

Performance Feedback

Problem Analysis

Problem Identification

Progress monitoring

Role Play

Raising Awareness

Tier 1 Implementation Supports

Tier 2 Implementation Supports

Tier 3 Implementation Support

Treatment Integrity