Together, the design options discussed in the previous section require collecting three kinds of data on students. These include data on student characteristics, data on student participation in *READ 180* and other learning opportunities, and data on student outcomes. All this information should already be in school or district records. Depending on the option your study team chooses, your study may not require all or even very many of the kinds of data listed here. Examining the implementation of *READ 180* in your school, however, will require you to collect and analyze data. Four tools in this guide will help you do that.

Student Data Requirements

For most studies of *READ 180*, data maintained by *READ 180* teachers or by district administrative offices will provide the majority of information required. Most likely, you can get the data you need from some combination of three sources: (1) the Scholastic Management Suite (SMS) or grade books and class lists maintained by *READ 180* teachers, (2) information on student characteristics and academic performance from your district's student-level administrative data files, and (3) information about the implementation of *READ 180* in each classroom.

You should use the teacher and district information whenever possible, establishing an order of preference among the various data sources. Some of the things to keep in mind are inconvenience to students and parents, inconvenience to teachers and staff, interruption of the regular activities of the school day, quality of the data used in the study, and cost of data collection/acquisition.

The one category of information for which you will almost certainly need to collect new data is individual teachers' level of implementation of *READ 180*. The guide provides data collection tools and procedures for three alternative ways to collect information about implementation: a teacher survey, a guide to classroom observation, and a teacher interview/focus group protocol. These are **Tool 2–*READ 180* Teacher Survey**, **Tool 3–Classroom Observation Protocol** and **Tool 4–Protocol for *READ 180* Teacher Interview**, respectively. There is also **Tool 5–Protocol for *READ 180* Principal Interview**, a protocol for interviews with principals. Data from these observations and interviews will give you a fairly complete picture of the implementation of *READ 180* and its contribution to a school's instructional program.

District Student-Level Data Files. Virtually every school district maintains a database (or databases) containing information about each of the students enrolled in any one of its schools. District staff use the database for assigning students to classes, projecting needs for classroom space and faculty, and generating reports to the state and federal departments of education. In almost every district, these databases represent an indispensable source of information on student characteristics and student test scores. Because the information for these databases has already been collected and is available for multiple years, the district student-level database is an indispensable part of most studies of *READ 180*.

One of the important planning tasks in preparing for your study is to determine what data are available, when they are available, and how to gain access to them. Having someone from the district's research office or the office responsible for maintaining student-level databases work with your study group would be one way of ensuring that your information is complete.

The Scholastic Management Suite (SMS) or *READ 180* Teacher Grade Books. Information about which students participated in *READ 180*, their entry and exit dates, and their scores on the Scholastic Reading Inventory (SRI) test are unlikely to be part of the district's student-level database. If these data are important for your study, you will have to turn to information routinely collected as part of *READ 180*. If the Scholastic Management Suite (SMS) has been fully implemented in your district's *READ 180* classrooms, this information can be extracted from the SMS.* If the SMS has not been implemented, the information may need to be transcribed from *READ 180* teacher grade books or other course records. Remember, it is important that the student's unique identification number assigned by the district be part of the student information from either the SMS or teacher grade book, this allows for ease of merging multiple data sets with the same student ID.

The types of information for which the SMS or teacher grade books will be the best source are:

- Unique student ID number assigned by the district
- Beginning date for each student's participation in *READ 180*
- End date for each student's participation in *READ 180*
- Initial SRI score on entering *READ 180*
- Student's grade level when the SRI was administered
- Date on which the SRI was administered
- SRI test score from the time the student exited *READ 180*
- Student's grade level when the SRI was administered
- Date on which the test was administered
- The total number of times a student took the SRI during the time he or she was enrolled in *READ 180*

Another way to capture your *READ 180* data is by creating a Data Export Report. This tool facilitates pulling information from your school or district files. Instructions for how to produce a data export report are included as **Tool 6–How to Produce a Data Export Report.**

* Staff from the district's research office may be able to assist in the extraction of data from the SMS and linking these data to other information available from the district's student-level files.

Implementation Data Requirements

To examine whether teachers are using *READ 180* as it was intended to be used and to compare student outcomes to different levels of implementation will require you to do some research of your own. Among the data that will most likely be of the most help are information about:

- the availability and use of appropriate hardware, software, and print materials
- the allocation of time, as specified in the *READ 180* program model
- instructional strategies
- the use of data generated by *READ 180* to inform instruction

There are several ways of collecting information on implementation and use of *READ 180*, including:

- Classroom observations
- Teacher self-reports using a survey
- Teacher interviews

Each of these strategies will yield valuable data on the implementation of *READ 180*. For example, classroom observations produce rich data on how teachers and students use key program components. Observations of classroom organization and practices have the added advantage of being objectively verifiable. Surveys, on the other hand, can collect a substantial amount of information from large numbers of teachers in relatively little time. Another advantage is that surveys can be completed during non-classroom hours, no small factor in getting a good rate of return from busy teachers. Nonetheless, surveys have a downside. They rely on self-reports, which are difficult to verify without being in the classroom or talking directly with teachers. Teacher interviews offer an opportunity to explore unique circumstances and strategies, while also yielding data on common topics and issues. Like the surveys, teacher interviews can be conducted during non-instructional time. However, also like teacher surveys, teacher interviews rely on self-reports that may be difficult or even impossible to verify.

Tool 2–Protocol for *READ 180* Teacher Survey can be administered online or as a paper-and-pencil instrument. It will yield less detailed information than classroom observations, but is easier and requires less time to administer. Based on early experience with the online version of the survey, Scholastic estimates that teachers will need about 15 minutes to complete it. If your study team decides to use the online version of the survey but does not have access to the necessary software, please contact Scholastic for assistance in administering the survey and reporting the results.

Tool 3–*READ 180* Classroom Observation Protocol will help you structure your observations in *READ 180* classrooms and measure the extent to which the program model has been implemented and is being used according to Scholastic's specifications. Individuals who use the Classroom Observation Protocol should be familiar with *READ 180* and spend the equivalent of a full *READ 180* class period observing various learning activities and instructional strategies. The protocol also requires a brief interview with the *READ 180* teacher. Depending on schedules, this interview can take place right after the observation or after school. The interview section of the observation protocol will last approximately 15 minutes.

The third data collection option for tracking implementation is interviewing *READ 180* teachers and principals. Guides for these interviews are included as **Tool 4–Protocol for *READ 180* Teacher Interview** and **Tool 5–Protocol for *READ 180* Principal Interview**. Teacher interviews can yield at least some of the same quantitative data as surveys, but they will not generate as much data as the classroom observations. Conducting interviews also requires scheduling a block of time—perhaps 30–45 minutes—in already hectic schedules. In districts where the implementation of *READ 180* varies across schools or classrooms or where teachers might be having difficulties implementing the program, interviews can be useful tools for exposing fine details about differences in implementation and challenges as teachers and principals perceive them.

Selecting a comparison group. A very effective way to add weight to your findings about the effects of *READ 180* on student learning is to compare these results with outcomes for students who are like *READ 180* students but who are not enrolled in *READ 180*. Once you have identified the *READ 180* students who are going to be included in your study, you can identify a comparison group accordingly.

Your goal in choosing the comparison group is to identify students who resemble the *READ 180* students in as many ways as possible. At a minimum, the comparison group should include students who (1) are the same age and grade as the *READ 180* students and (2) scored at the same levels on the pretests, particularly pretests that were used to place students in *READ 180*. Likewise, your comparison group students should be similar to *READ 180* students in gender, ethnicity/race, and participation in and/or eligibility for special programs, such as special education, English as a second language, and free and reduced price meals. To the extent possible, the comparison group should approximate the same size as the *READ 180* group, with relative proportions of subgroups also the same size. An important standard for the overall size of the comparison group and for the size of subgroups is that they are amendable to the same statistical analyses as you intend to use on data on *READ 180* students. Finally, no student who has ever enrolled in *READ 180* in prior years should be part of a comparison group.