Why Do a Follow-Up Study of Reading Recovery Children? Rationales and Recommendations

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Are you concerned about the long-term progress of the most at-risk students in your district or school? Do you need a way to focus discussion on the instructional support these students need in their classrooms? Do you still need to respond to questions about the value of early literacy intervention? All or any of these questions might be sufficient to consider conducting a Reading Recovery follow-up study.

Some Reading Recovery professionals have questioned the need for continued evaluation of Reading Recovery since many studies have documented the effectiveness of the intervention as well as the lasting effects of the program for the children served. Sixteen years of data are compelling. Nationally, 60 percent of all children served, even counting children that received only one lesson, and 81 percent of all children who receive a full program perform at average levels by the end of first grade. Large-scale follow-up studies from Ohio (Hovest & Day, 1997), New York (Jaggar & Simic, 1996), Massachusetts (Fountas, 1997), Indiana (Schmitt, 1999), and Texas (Askew & Kaye, 2000) reveal that children served continue to progress with their peers following the intervention. Similar results are confirmed by studies at district and site levels (Brown, Denton, Kelly, & Neal, 1999; Homan, 1999; Schlesinger, 1998; Skandalaris & Bauer, 1997; and Williamson & Johnson, 1999). Nonetheless, questions about Reading Recovery's long-term effectiveness remain. In an era of high-stakes testing and program accountability, the call for ongoing follow-up studies will continue to increase.

The purpose of this article is to highlight the importance of continued evaluation of the Reading Recovery program over time. This work is needed to demonstrate the achievement of our stated goals, to communicate with stakeholders and respond to critics, and to engage in program refinement and improvement.

To facilitate these efforts I have organized the remainder of this article around four sections:

1. a brief review of national and statewide studies that demonstrate the long-lasting effects of the Reading Recovery program for the children it serves;
2. a definition of Reading Recovery follow-up studies and the implementation factors that affect outcomes;
3. recommendations for conducting a follow-up study in one's own locale; and
4. the rationales and benefits of conducting follow-up studies.

Demonstrated Long-Lasting Effects

Over 30 years of research (Clay, 1993) has established that Reading Recovery teachers provide individually designed instruction that enables the lowest-achieving first grade students to make faster than average progress so that they can catch up to their peers and work on their own within the average group of their classroom. The program has been studied and evaluated in many contexts throughout the world, and large-scale studies document the long-lasting effects of the program for children. The New Zealand studies were the first to do so (Clay, 1979, 1993). Later, in 1995, Rowe's study of the reading performance of 5,000 Australian children from school entry to Grades 5 and 6 found, surprisingly, that Reading Recovery students were distributed across the same score range as the general school population and with fewer lower scores. Reading Recovery had removed the tail-end so that children who were initially the lowest-achieving students did not differ from normal variability in the long term. Follow-up studies in the United States (Askew & Kaye, 2000; Brown et al., 1999; Fountas, 1997; Homan, 1999; Hovest & Day, 1997; Jaggar & Simic, 1996; Johnson et al., 2000; Schlesinger, 1998; Schmitt, 1999; and Skandalaris & Bauer, 1997) confirm Rowe's finding

that in the later grades, Reading Recovery children's scores closely approximate the spread of scores found in their grade-level cohort group. This is a remarkable achievement both for the educational system and for a group of students initially identified as the most at risk.

What is a Reading Recovery Follow-Up Study?

A Reading Recovery follow-up study is an examination to determine whether the results of the intervention are maintained in the long run, under what circumstances, and with whom. Children who received Reading Recovery in first grade are followed on an annual basis to determine whether the gains made in reading are sustained over time—essentially a summative evaluation. A second approach is to do repeated evaluations to assess factors that affect the Reading Recovery implementation and the subsequent literacy learning of students; this is a formative evaluation. The formative follow-up study approach not only examines student progress, but also attempts to identify factors that will increase and sustain these gains. Factors that influence student outcomes include:

- the age of the Reading Recovery implementation in the district or school;
- the training, experience, and current knowledge of the teachers delivering the intervention;
- coverage or the proportion of children who receive a full series of lessons;
- the proportion of children served who reach one of two positive outcomes;
- the number of children who receive daily lessons;
- the quality of the classroom support and curriculum both in first grade and across the years included in the follow-up analysis; and
- a shared vision and the support of administrators and stakeholders.

Each of these factors can have an independent effect both on the long-term progress of the children served and decisions about program effectiveness and efficiency. Data are examined for the purpose of realizing one clear goal: "to dramatically reduce the number of learners who have extreme difficulty with literacy learning and the cost of those learners to educational systems" (Clay, 1994, p. 1). The Reading Recovery follow-up study is an essential element in refining your implementation to accomplish this goal.

Recommendations for Launching a Follow-Up Study

Clearly, Reading Recovery has the potential to produce and sustain gains. Follow-up studies are an important means of communicating the results of a successful implementation and ensuring its continued support. Likewise, a follow-up study designed to track the progress of at-risk students can help a site or district examine whether it is meeting its goals and can suggest areas for improvement and refinement. The challenge is often just how to get started. Based on interviews with several administrators, teacher leaders, and school district data specialists, the following steps are recommended.

1. Decide what you'd like to study and why. Be specific. Ask carefully crafted, succinct questions; for example: Do Reading Recovery children reach satisfactory proficiency levels in reading by the end of Grade 1? Do they sustain successful reading levels in subsequent years? (Questions adapted from Brown et al., 1999, p. 5.)

2. Decide which children to study and what assessment instruments will be used. Reading Recovery collects data on all children served, even if only for one lesson. Categories include discontinued students who have made accelerated progress, non-discontinued children who have received a full series of lessons of 20 weeks and who have been recommended for additional assessment and follow-up, children served whose programs ended when time ran out at the end of the school year, and children who have moved. With the exception of the children who have moved and are consequently unavailable for a follow-up study, each of the above categories can be compared to a random sample of peers using the literacy assessment instruments already in place. Cliff Johnson, Reading Recovery university trainer at Georgia State University, offers sound advice. "Identify the sample of Reading Recovery and comparison group children. Be sure to use unique student identification numbers to track the progress of individual children. Use an achievement measure that is already being administered to the sample children to avoid administering another test. Be sure, however, that the measure has proper validity and reliability. Use raw scores or normal curve equivalent (NCE) scores to show gain. Despite common practice, percentiles should not be averaged to obtain a mean."

3. Determine what kind of follow-up study to conduct. Learner progress might be studied using either *cross-sectional* (a slice in time) or *longitudinal* (follow the same children in subsequent years) designs. Each design has its advantages. Cross-sectional designs are easier, quicker, less expensive, and useful for evaluating student progress at one point in time. Longitudinal designs use students' initial performance as a baseline against which to measure growth and change over a period of time. School effectiveness experts (Madaus, Airasian, & Kellaghan, 1980) report a preference for the longitudinal design because data are obtained on the same students at different times, providing evidence of temporal precedence and greater awareness of cumulative progress. Data reported using a cross-sectional design have been found to differ considerably from data gathered using a longitudinal design. This is especially problematic when changes in curriculum or student demographics make comparison across cohorts difficult. While it may be more complex and costly in terms of time and personnel resources, the longitudinal design appears to have advantages that would make it attractive to a Reading Recovery district or site.

4. Ask: What is feasible? What will this study cost in terms of resources and people? Don't try to tackle too much. Creating a feasibility plan along with a budget for follow-up study will result in efficiency and considerable cost savings.

If serving a large number of students, consider a stratified random sample of children versus following every child served. For accuracy, the sample should represent the total population in terms of ethnicity, economic status, and gender. Collect only the data you will use. Testing only at the end of the year, rather than in both fall and spring, is usually sufficient to track change over time.

5. Consider a pilot study to precede the full-scale study and address the inevitable snafus that cost time and money. In May of 2000, Thom Davis, teacher leader at the Heartland Area Education Agency in Johnston, Iowa, launched a small pilot study in a few of his schools to precede a larger full-scale study at the site. Davis was glad he did. "Even the best-laid plans can have wrinkles. In the middle of follow-up testing on former Reading Recovery, random sample, and comparison group children, one of our school districts received a tornado warning. Needless to say, children and teachers were relegated to the safe but tight environs of the girls and boys restrooms for over an hour! The Reading Recovery teachers had to arrange another day to finish testing amid several year-end field trips and class picnics. Because of our experience with this one pilot study incident, we'll be better prepared next year. We'll test earlier and arrange one or two make-up dates in advance."

6. Create a plan and process for the study. Outline what will be done, when, and by whom. Create a jobs list indicating who is responsible and schedule periodic checkpoints to make sure everyone is still on track. Estimate how long each step will take. Keep a journal of each step of the process to determine what went well, what didn't, and refine the process accordingly. (Figure 1 lists issues to be considered before conducting a follow-up study; Figure 2 is a suggested format for a comprehensive planning guide.) Remember, the follow-up study is ongoing. Results will be analyzed and new questions asked in order to improve the implementation and benefit children.

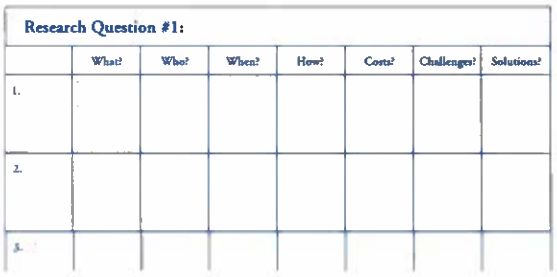
A few examples of plans and processes from the Heartland Area Education Agency (AEA) follow-up pilot study are as follows. Three months prior to the study, the AEA research and evaluation consultant, university trainer, and teacher leader created a budget and timeline for completion of the pilot study. They determined which groups of children would be selected for the study, and for logistical reasons, they chose two nearby school districts that were able to meet their timetable. Two months prior to the study, Reading Recovery teachers sent lists of former Reading Recovery children now in second grade (discontinued, non-discontinued, and a random sample of the second-grade cohort) to the teacher leader who scheduled testing dates at each participating school. Concurrently, the university trainer ordered the standardized assessment instruments and enlisted the help of teacher leaders-in-training who would administer the assessments. On the recommendation of the research consultant, a decision was made to machine- rather than hand-score the results to save time. The university trainer created a questionnaire designed to assess classroom teachers' ratings of each child's current classroom reading performance. Using space provided for additional data, teacher ratings were "bubbled-in" on each child's test booklet following the assessments. At the end of the data-gathering phase, examiners met with the teacher leader, trainer, and research and evaluation consultant in a brainstorming session designed to

Figure 1.
Twenty Questions to Consider Before Launching a Follow-Up Study

1. What are the benefits of conducting your own follow-up study?
2. What are the issues? For example: missed lessons, in-training versus experienced Reading Recovery teachers, new administration, fast implementation, coverage (i.e., need versus number of Reading Recovery teachers), quality of kindergarten instruction and first-grade instruction, cost and budget allocated for Reading Recovery?
3. What research questions should you ask? What questions need to be answered?
4. What kind of study should you conduct? A cross-sectional (one slice in time) study? A longitudinal (follow same children year after year) study?
5. What information should you collect? Why?
6. What instruments or sources of data should you use? Why?
7. What materials will you need?
8. Who (which children) will you study? Discontinued? Recommended? Comparison group?
9. How many children will be needed for the study? How and when will they be chosen?
10. Who is the study for? Who wants to know? Audience?
11. Who will you need to help you with the study?
12. How much will it cost to do the study? Who will fund the study?
13. What are the personnel costs? What are the travel and mileage costs?
14. How much time will it take? Will the study take time away from instruction?
15. When should the study begin? When should it conclude?
16. What preparations need to be made before collecting data? What preparations after collecting data?
17. Who (administrators, teachers, parents) will be notified regarding the study? How will they be notified?
18. Will participants need to agree to the study? Will permission need to be obtained? When? By whom?
19. What logistical (time, place) considerations need to be made? When? By whom?
20. How will the results be made public? What format? To whom?

Figure 2.

Follow-Up Study Planning Guide



Research Question #1:							
	What?	Who?	When?	How?	Costs?	Challenges?	Solutions?
1.							
2.							
3.							

A chart like the one above, completed for every step of the follow-up study process, will ensure that these important issues are addressed:

What needs to be done?
Who needs to do it?
When and what is the timetable?
How and what are the logistics?
Costs and materials that will be needed?
Challenges—what might get in the way?
Solutions to address the pitfalls?

fine-tune procedures for launching the full-scale study.

7. Do it!

Rationales and Benefits: Why Conduct a Follow-Up Study?

Sixteen years of data demonstrate the effects of Reading Recovery for children served in first grade. State, district, and site follow-up studies indicate that these children continue to progress in reading with their peers following the intervention. The concern within the Reading Recovery community, and in the educational community as a whole, centers on how to support and foster these gains in the long term. What questions need to be asked and what kinds of studies need to be conducted that will help refine and improve the literacy curriculum and classroom instruction and ensure the continued support of administrators and stakeholders for the Reading Recovery intervention?

Skepticism about innovation is not uncommon in the greater educational community. In a discussion of leadership of large-scale educational improvement, Elmore (1999) explains that educators often dismiss research on successful programs or promising practices with a laundry list of excuses why they would never work in their schools or districts. Among the reasons:

> *Their* students are much different from those in the example, *their* communities would never tolerate such practices, *their* union contract contains very different provisions that would never permit such actions, *their* teachers are much too sophisticated (or unsophisticated) to deal with such improvements, etc., etc., etc. (p. 53)

Elmore argues that the most effective means of responding to obstacles to change is to surround teachers, administrators, school boards, and others with numerous examples of success with a focus on the stability of that success over time.

For many parents, teachers, administrators, and school boards, there is an inherent distrust of any study not conducted with students in their own district. In an era of heightened program accountability, it is both prudent and necessary to invest in ongoing evaluation and monitoring of Reading Recovery and the literacy curriculum through carefully designed follow-up studies.

Reports of follow-up studies are important information for all of us about what is possible. The schools, districts, and sites that have conducted these studies have gained more than information on program effectiveness. They have gained local knowledge and experience that can guide them to refine and improve their literacy programs for all students with renewed commitment, understanding, and enthusiasm for the goals and purposes of Reading Recovery.

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