Even in good schools in educationally supportive communities, a significant number of children have great difficulty getting started in learning to read and write. Research evidence places this number at about 20–25% (but lower in some, and much higher in many schools), and this degree of literacy learning difficulty generally holds despite the approach to literacy used in classrooms (Clay, 1991; Crevola & Hill, 1998; Rowe, 1995). How to help these children so that they get off to a good start in literacy and school learning is a major challenge for the goal of achieving universal literacy.

According to Marie Clay, the children who find learning to read and write difficult fall into two groups: those whose life experiences make school learning very difficult and those who are challenged by aspects of literacy learning itself (Clay, 2003). The causes within each group are almost infinitely varied, and the two groups often overlap; nevertheless, this distinction between experience-rooted causes and learning-based causes is important in working toward solutions. Preschool programs and strong kindergarten and classroom programs, combined with effective early literacy interventions such as Reading Recovery, can help most of the children in either of these groups experiencing early difficulty with literacy learning. There will always be, however, a small percentage of children who find learning to read and write extremely difficult; these children will need long-term support for learning from educational specialists. The percentage of children in this category is still being debated, but under ideal conditions many experts estimate it to be 2% or less (Clay, 1997).

Predicting at the onset which low-performing first-grade children will respond to skillful teaching and which ones will need specialist evaluation and long-term support is nearly impossible. Children of both groups look very much alike on early literacy tasks, and neither sensitive observation nor the results of standardized psychometric tests will predict with adequate reliability which ones will respond sufficiently to intensive early instruction and which ones will need special education services (Clay, 1987, 1998).

The obvious solution to this issue is to provide the strongest possible early intervention to all children who experience difficulty with beginning literacy, and then refer those who still have great difficulty for further evaluation after the intervention has run its course. This approach is consistent with policies in the field of special education. Most states require a prereferral process before children are placed into long-term programs. Prereferral requirements include (a) delivering an intervention before student difficulties become a disability, (b) working with students in the least restrictive environment, and (c) verifying that the problems a child is experiencing are not being caused by the school curriculum or instruction. These quite general requirements, however, leave room for a wide variety of interventions as well as differing interpretations of least-restrictive environments and instructional causation.

Without a strong, effective intervention, a majority of children experiencing early learning difficulty will be referred and tested, and a significant number will receive some classification (such as learning disabled or mildly disabled) that will assign them to special educational services. At present many more children than necessary are being referred for testing and being placed in special education.1 This places great strain on educational resources as well as on parents and children.

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1 “Although the percentage of students served through special education is still below the original estimates, many administrators and policy makers think the number is too high” (Smith, 2002, p. 30).
Reading Recovery is designed to be a prereferral intervention. It is what Pianta has termed a second-level intervention (Pianta, 1990). Its clear aim is to reduce reading failure by targeting those still in need after one year of schooling and reducing the number who need a third level of highly specialized, long-term learning support. Research has shown that Reading Recovery is very effective at meeting two goals:

- accelerating the learning of most of the first-grade children who struggle with literacy learning so that they develop effective learning systems and can continue to progress in school without further supplemental support; and
- identifying those children who need further evaluation and continued limited-time or long-term support.

These are the two positive outcomes of Reading Recovery. As background for discussing these positive outcomes, we explain in the first section below how children enter and exit the program and list all possible outcomes of Reading Recovery service. In the next two sections, we discuss the two positive outcomes of Reading Recovery, their benefits both to children and to the school system, and the evidence for their positive contributions; this is followed by a summary of the information about Reading Recovery’s two positive outcomes. Then, we go on to explain how Reading Recovery works to achieve outcomes and benefits that other one-to-one assistance programs have not demonstrated. We close with a discussion of issues concerning the boundary between Reading Recovery and special education, including: (a) referral of children for specialist evaluation, (b) provision of service to children who need additional support beyond Reading Recovery, and (c) expectations concerning the numbers of children in certain outcome categories.

Reading Recovery as a Short-Term Intervention

Reading Recovery is a one-to-one intervention of short duration with a time span that varies with the individual child. Since children enter and exit Reading Recovery at different times during the year, entry and exit procedures and the different categories of outcomes reported annually are explained in this section.

Most Reading Recovery teachers teach children individually for one-half of their duty day. Every teacher begins to teach at least four children at the beginning of the year for 30 minutes each day and is required to select the lowest-performing, most needy children first. An outer limit for the duration of this diagnostic series of lessons is set at 20 weeks; however, the average time required for successful completion by individual children is 15.5 weeks (Gómez-Bellengé, et al., 2003). The lessons can be discontinued (i.e., successfully completed) for most children before the maximum time frame of 20 weeks because they have achieved rigorous performance standards which indicate that their learning how to read and write has recovered a normal trajectory of progress. At the end of 20 weeks, first-round children who are still in the program are retested. The lesson series of all those who meet performance standards are discontinued, and any remaining children are recommended for another evaluation and a further placement to meet their needs.

In the United States, the first round of children served are the lowest-performing children in the cohort entering the first grade, i.e., their second year of schooling (most children attend kindergarten even though it is optional in many states). Twenty weeks was selected as the outer limit for delivering the intervention on the basis of research and extensive field experience which indicate that after 20 weeks, the possibilities of accelerated learning into the average group in their classroom are very slight for those who are still struggling (Clay & Tuck, 1991). This decision point is economical from the standpoint of the school as a whole and provides a fresh opportunity for placement of another group of learners. There are several reasons for adopting this decision framework.

- Those most in need receive service first, when their learning systems are most able to be developed.
- With skillful teaching, 20 weeks allows sufficient time for a majority of the individually tutored children to develop ways of learning to work effectively in the classroom.
• Stopping after 20 weeks allows time for a second round of children to enter Reading Recovery, and occasionally third-round children will be served with the same resources.

• The children entering a second round of service in the Grade 1 year are those who are judged after several months of classroom instruction to be the next most needy.

In actuality, the 20-week decision point is treated somewhat flexibly. If it seems that the child or a teacher in training needs 1 to 2 more weeks to help children firm up progress in some area, extra time may be allowed. Decisions on each child need to be balanced against the needs of the school population, the needs of the individual, and the amount of teaching time available at the school.4

Children served in Reading Recovery fall into outcome categories other than those whose series of lessons have been discontinued and those who have been recommended for further evaluation. Some children move away from the school. Others have long-term recovery from serious illness or accidents. Occasionally a psychologist or an administrator may recommend to parents the early placement of the child in special education. The percentage of those who move (classification moved) usually ranges from 4–5% of all children served in Reading Recovery, and the category of those who are withdrawn (classification none of the above) hovers around 4% in the national data.

Additional discussion of the recommended 20-week decision point may be found in A Principal’s Guide to Reading Recovery (2002) pp. 32–33.
(Gómez-Bellengé, Rodgers, & Fullerton, 2003). Such children do not receive a complete series of lessons for reasons beyond the control of Reading Recovery.

Another group of children receive an incomplete program classification because time has run out for them. They are second- or third-round children who cannot be given a full series of lessons before the end of the school year. In some places provision is made to continue their service in the summer or at the beginning of the new school year. The size of this group may be an indicator of efficiency in delivering the intervention. Teaching effectively—and avoiding time lost to testing, or for selection decisions, or because the teacher or the child are unavailable for lessons—will help to minimize the percentage of children falling into this incomplete group.

In summary, Reading Recovery outcomes are reported as data in the following status categories:

- **Discontinued.** Children whose series of lessons are discontinued because they meet performance criteria any time within a 20-week period of intervention.
- **Recommended for further evaluation.** Children who receive 20 weeks of tutoring but do not satisfy required performance criteria.
- **Moved.** Children who move away from the school while being served in Reading Recovery.
- **Incomplete program.** Children who do not meet performance criteria for discontinuing because they do not receive a full series of lessons (usually because they enter Reading Recovery too late in the year).
- **None of the above.** Children withdrawn because of long-term illness or administrative reassignment usually as a result of professional advice to the parents.

The discontinued and recommended for further evaluation categories represent the two positive outcomes of Reading Recovery as an early literacy intervention.

Benefits of the First Positive Outcome

The first positive outcome of Reading Recovery is that a child’s learning has accelerated to the point that allows a strong prediction for continued learning through classroom instruction without further need for supplemental support. This outcome refers to the children whose series of lessons have been successful and therefore were discontinued.

This outcome is positive for children because they have begun to construct literacy learning systems that enable them to improve as readers and writers through continuous, meaningful engagement with texts. These children no longer lag significantly behind their peers. They perceive themselves as readers and writers and develop confidence in their ability to learn. Doors are now open for these children to learn and continue to learn about language and literacy—and, through language and literacy—much more about the past, present, and future of the world.

This outcome is also positive for the school and educational system. Reading Recovery as an intervention has served a preventive purpose through the acceleration and learning progress of these children. Prevention is realized through significant reductions

- in the number of children retained in first grade,
- in the number of children referred for testing, and
- in the number of children classified and placed in special education.

In these ways, Reading Recovery creates important cost benefits for school districts. Each retention costs a school system the per-pupil cost for another year in school, a figure that is higher than the cost of providing Reading Recovery service (Assad & Condon, 1996; Dyer & Binkney, 1995). The Reading Recovery savings realized through reduced retentions can be estimated by subtracting the per-pupil Reading Recovery cost from the per-pupil cost for the district and then multiplying by the number of children whose lessons were successfully dis-

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5 This is a problem only in the United States. In other countries, all programs are completed by carrying children over into the next school year.

6 However, a program may be very efficient and start several children in a third round. These children may very likely appear as incomplete program children, but this should not reflect negatively upon program efficiency.

7 A small number of children whose lessons were discontinued do end up receiving special educational services; but almost all of these receive service for speech, language, and math, while a very few receive service for reading.
continued and who might otherwise have been retained (Gómez-Bellengé, 2002).

For example, in one urban district 75% of children who received full service\(^8\) (145 students out of 192) had their series of lessons successfully discontinued. The Reading Recovery cost per student classified in the discontinued status category in this school system was calculated to be $4,837. The annual per-pupil expenditure for the system was $9,400. Subtracting the Reading Recovery cost per student in the discontinued category ($4,837) from the annual per-pupil cost ($9,400) yields a savings of $4,563 for each student who might have been retained. National figures suggest that a majority of these children would have been considered for retention if their school systems had a policy allowing retention. Assuming conservatively that only 50% (72 students) would have been retained without the Reading Recovery intervention, the savings to the system can be estimated at $330,806 ($4,563 x 72).

The benefits of not retaining children are more than financial. According to longitudinal studies by Juel and Leavell (1988), chances are close to 90% that a child who is a poor reader at the end of Grade 1, and who is retained, will remain a poor reader at the end of Grade 4. In today's educational context, that correlation may mean multiple retentions for many children and considerable expenditures on remediation as well as personal trauma and psychological damage resulting from failure. Research shows that retention greatly increases the chances of dropping out of school and that retention does not improve students' performance in subsequent years; in fact it may have a negative effect. Retention may also have serious negative effects on self-perception and self-confidence (Shepard & Smith, 1989).

Another significant cost saving from Reading Recovery can be estimated from reductions in the number of children in the grade cohort who are referred and tested for special educational services. Costs of this assessment alone have been estimated at $2,500 to $3,500 per individual case (Dyer & Binkney, 1995). The costs of placement and service in special education are much higher since the service continues over several years, often throughout the child's public school career. According to one expert, the costs to educate children with disabilities are estimated to be about 2½ times the costs of regular education (Smith, 2001). A somewhat more conservative estimate is given by a government source which estimates the annual costs for special education beyond the costs of regular education to be $8,080 for the average child with disabilities (President's Commission on Excellence in Special Education, 2002).

Reports from a number of school systems that support high-quality, full implementations of Reading Recovery indicate that these savings are being realized. Kent Gage of Livonia, Michigan, claimed that the percentage of children qualifying for learning disability services was cut in half and that the savings realized by Reading Recovery (through reduced retentions, referrals, and special education services) allowed the system to significantly reduce class size in the primary grades without an increase in budget (Gage, 1997, 1999). Other systems report reductions in the numbers of self-contained special education classes or in special education teaching positions (Assad & Condon, 1996; Lyons & Beaver 1995). Another benefit of reducing these numbers in special education is that special education services and funds are freed up for those children who clearly need them, enabling special educators to be more effective by reducing their caseloads to manageable sizes.

Each school and Reading Recovery training site can estimate its own savings resulting from this first positive outcome of Reading Recovery. Data reported by the National Data Evaluation Center\(^9\) shows, for each site, the number of children who were initially referred for retention and the number actually retained, as well as the number of Reading Recovery children (from all outcome groups) who were placed in special education and for what reasons.

Benefit in terms of cost savings to school systems is only one aspect of the contribution of Reading Recovery. The benefit to individual children who may be saved

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\(^8\)The term children who receive full service will refer to children in both the discontinued and recommended for further evaluation status categories; hence, it excludes children who moved, received an incomplete series of lessons, or were withdrawn because of unusual circumstances.

\(^9\) The National Data Evaluation Center for Reading Recovery was established by The Ohio State University to collect and analyze all Reading Recovery data. It has grown and expanded over time and now uses the Internet for electronic submission of data and distribution of reports.
Benefits of The Second Positive Outcome

Children who cannot be predicted to progress well within their classrooms at the end of 20 weeks in Reading Recovery are classified as recommended for further evaluation; they require further assistance. (They are referred to as recommended throughout the remainder of this paper). Although the progress and performance of these children does not yet warrant a prediction that they will continue to learn adequately in classroom situations, these children represent a second positive outcome of Reading Recovery for the following reasons:

• The children who need specialist evaluation are more efficiently identified.

• With reduced referrals children may receive earlier placement in alternate programs with specially trained teachers, which can benefit their learning.

• Most of the children in the recommended category have made significant progress in learning to read and write even though they have not met criteria for successfully discontinuing their series of lessons.

The learning progress of recommended children will vary considerably during Reading Recovery. One sub-group is children who have made very limited learning gains in Reading Recovery, continue to have problems processing information, and are referred for specialist evaluation. But a second sub-group of recommended children will not be referred for testing because it has been observed in their schools that their learning has been substantial. Many of these children continue to receive supplementary support for learning in small groups for the remainder of the year, and some of them will meet grade-level standards by the end of the year. Others may be promoted and receive supplemental small-group service in Grade 2, often with excellent results. As a result of the individualized tutoring received during Reading Recovery, these children are now able to learn in group situations from classroom teachers or from supplemental reading teachers (some of whom may teach Reading Recovery the other half of their day).

Reading Recovery data from many sites indicate that the group of recommended children as a whole has kept pace with and made gains in literacy learning comparable to the gains of a random sample of first-grade children from the same schools. Although children begin the year well below the random sample and end the year still below that group, their path of progress appears to be parallel (but not equal) to that of the random sample group. What they have not done is accelerate their learning so that they catch up to others in their age cohort, either in performance level or in the ability to profit independently from classroom instruction. In not classifying them as discontinued, Reading Recovery professionals had predicted that...
their learning would not accelerate enough to bring them into the average group unless they were given additional specialist assistance.

**Learning Gains Through Reading Recovery**

Another way to demonstrate the benefits of Reading Recovery is to look at changes in the trajectories of learning for children served. Almost all Reading Recovery children fall in the lowest quintile in the beginning of Grade 1. Research has shown that children in this quintile who do not receive an intervention usually remain in this quintile throughout their elementary school years (Juel & Leavell, 1988). The trajectory of progress for successful Reading Recovery children is clearly much steeper than the progress of a random sample of all first graders in the school. Reading Recovery data from more than 1 million children show that children in the status category discontinued are significantly lower than a random sample of first graders at the beginning of the year, but at the end of the year no significant differences are evident between the two groups (Gómez-Bellengé, 2004).

Figure 2 illustrates these effects. First-round children in the discontinued status category entered Reading Recovery in the fall with text reading scores below 1.0, and the mean for their exit scores (near midyear) was 13.6. (By year-end, their text reading mean was 19.5.) Second-round students in the discontinued status category entered Reading Recovery near midyear with text reading scores of 5.4 and exited with a mean of 17.9. (Their year-end mean of 18.4 was slightly higher than their exit mean.) The text-reading mean for random sample students in the fall was 4.0; at year-end it was 20.0.

Change in the trajectory of learning for the recommended group is less well-documented, but some evidence is available indicating that the change is significant. Figure 3 compares the fall entry and exit text reading scores for (a) first-round children who were later (after 20 weeks) designated as recommended to (b) the fall test scores and entry-level scores for second- and third-round children (scores which represent the period between entry to first grade and being taken into Reading Recovery). The recommended children were the lowest-performing children at the beginning of the year. Their group included those who (eventually) needed referral for testing and placement in special education. The second- and third-round Reading Recovery children began the year with slightly higher scores, and most of them received supplementary instruction in small groups during the first part of the year. Yet the trajectory of progress for the recommended group is steeper than the path of progress for delayed entry students over the first half of their first-grade year (before Reading Recovery service). The added learning value to recommended children from Reading Recovery instruction can be seen in these data.

**Summary of the Two Positive Outcomes**

The varied outcomes of Reading Recovery intervention represent success for individual children as well as for the intervention. Benefits result from service to all children who are able to complete their series of lessons by meeting rigorous exit standards at 20 weeks or earlier. For children who complete 20 weeks and require further evaluation, the instructional intervention has served effectively as a first safety net, identifying early those who need longer term support. Although they are all struggling with literacy learning, children who are taken into Reading Recovery are highly variable in their knowledge, their
abilities, their experiences, and their needs as they enter the intervention. Their progress will also be considerably varied while headed toward the common goal of maximizing their potential for successful literacy learning.

Children in the Discontinued Outcome Group
For those who accelerate in their rate of learning and meet exit criteria (those whose lesson series are discontinued), predictions can be made that they will continue to learn at an appropriate rate in classrooms without additional supplementary support. Data from more than 1 million children in the United States bear this out: those whose series of lessons are discontinued at or before 20 weeks continue to make learning gains to the end of the year comparable to a randomly selected control group (Gómez-Bellengé et al., 2003). Figure 4 illustrates the trajectories of growth for children in the discontinued status category during and then after the cessation of Reading Recovery service. Text reading scores of first-round discontinued students in the fall was 0.8 compared to 4.0 for random sample students (a statistically significant difference)\(^{11}\). At exit (near midyear), the text reading mean for discontinued students was 13.6, but by the end of the year it had increased to 19.5. Random sample children were slightly but insignificantly higher (20.0) at year’s end. This is a successful outcome because children initially in the tail end of the distribution of achievement have shifted into the average range (no significant difference now exists between them and their peers).

Data from school systems and sites that have supported a high-quality implementation of Reading Recovery (by following the procedures outlined in Standards and Guidelines of Reading Recovery in the United States) demonstrate that the learning gains made during the Reading Recovery intervention are sustained remarkably well over time (Askew et al., 2002; Brown, Denton, Kelly, & Neal, 1999; Fountas, 1997; Homan, 1999; Hovest & Day, 1997; Jaggar & Simic, 1996; Rowe, 1995; Schmitt & Gregory, 2001; Williamson & Johnson, 1999).

Children in the Recommended Outcome Group
The children who are classified recommended for further evaluation are also a varied group. They include

- children who need specialist appraisal, determined by their response to Reading Recovery instruction
- children who have made learning progress at a rate comparable to other children in their classes who began the year with more strengths, but who have not accelerated their learning to catch up with the average achievement of their peers

Some of the children in the second group above will be able to make satisfactory progress through school with limited-time supplementary support. Other children in this group may continue to exhibit learning problems: some may be retained (for a variety of reasons) and some may receive special education classification at a later point in their schooling. As a group, the recommended children will have made greater learning gains because of their time in Reading Recovery; moreover, Reading Recovery has served to reduce the number of referrals among these initially lower achieving children.

Reading Recovery’s success in achieving positive outcomes has been remarkable. This early intervention selects the lowest-performing first-grade students for service first. The percentage served is determined by the school and may vary from below 5% to more than 20%—in other words, from less than 5 out of 100 first-grade students to more than 20 out of 100. National data (Gómez-Bellengé et al., 2003) for the past three years (1999–2002) show that

\(^{11}\) Statistically significant differences between Reading Recovery children and random sample children are also observed on the other five subtexts of Clay’s An Observation Survey of Early Literacy Achievement.
• more than fifty-nine percent (59.2%) of all students who enter the intervention meet the rigorous criteria to have their series of lessons discontinued after the short-term intervention;

• when only the children who have an opportunity for a full series of lessons are considered (and the categories moved, incomplete program, and none of the above are excluded), the percentage of children in the status category discontinued has ranged between 77% and 79%; and

• of all students entering Reading Recovery, 17–19% are classified recommended for further evaluation and assistance after receiving full service of at least 20 weeks in Reading Recovery (18.3% for 2001–2002). This figure may appear high, but it is only about 3% of all the children in the Grade 1 cohort.

The remaining outcome categories include children who began the intervention program but for some reason were unable to complete it. These are not problems of learning; they are issues concerned with the management and delivery of the intervention which may or may not indicate need for greater efficiency. The largest of these groups (14.5%) are second- or third-round children who did not complete full series of lessons because that was not possible. An additional 4.5% of the students moved while receiving service. A small number of children (3.5% of all children served) were removed from the intervention for reasons beyond the control of the Reading Recovery personnel (such as health or administrative placement in special education programs).

Evidence to support the learning value of Reading Recovery for children with an incomplete series of lessons (status category: incomplete program) is less clear than for children in the discontinued or recommended categories. Nevertheless, it would be unfortunate if administrators or Reading Recovery teachers stopped taking in Reading Recovery students late in the year just to lower the number of children classified in the incomplete program category. What benefits may accrue for individual students even from a very short series of lessons cannot be predicted. Many children who enter Reading Recovery late in the year do successfully complete a series of lessons in 15 weeks or less and are classified in the discontinued status category; others, however, even though they make significant learning gains, require a longer series of lessons, which the end of the school year precluded. These are the ones who constitute the incomplete category.

How Reading Recovery Works
The remarkable success of Reading Recovery as both a preventative intervention and an intervening service before longer-term instructional support lies in its well-conceived procedures and skillful delivery of lessons.

Selection of Children
The selection of children for Reading Recovery service is systematic and clearly defined. Many errors of selection are avoided by delivering the intervention in the second year of schooling after children have had an opportunity to respond to preschool and kindergarten (first formal school year) instruction. At the beginning of the first grade (second year in school), children are ranked from highest to lowest by their kindergarten and first-grade classroom teachers on the basis of the teachers’ observations of the children’s literacy performance. Reading Recovery teachers then administer the six measures of Clay’s Observation Survey, beginning at the bottom of the class lists (the lowest-performing children). Teachers continue to test children with the lowest rankings until increasingly higher scores and observations indicate that children achieving average performance have been reached. In some schools 35–40% of the first-grade cohort may be tested, in others only 20–25% or fewer. Selection is made on the basis of the results of Observation Survey
testing only, unless information supplied by the classroom teacher changes the relative ranking of a child.\textsuperscript{12}

The Observation Survey, although widely used and imitated, has been criticized by some who favor tests designed to conform strictly to psychometric principles of measurement and designed for comparisons of subjects across fairly wide age and grade ranges. A strong argument can be supported, however, that Clay’s measures, taken together as they are intended, are much more sensitive to small differences among children in the early stages of literacy acquisition and much more sensitive to changes in individual learners during the emergent and early literacy acquisition periods. Validity and reliability statistics on these measures are quite adequate to produce stable scores for children at this point in their learning (Clay, 2002). Reliability and validity, however, are dependent upon teacher training in administering the survey—a characteristic deplored by those who seek to develop materials and tests that are teacher-proof, but embraced by those who value teacher skill and professional development as a major means of educational reform. Since several of Clay’s observation tasks are designed to measure early literacy achievement, ceiling effects limit their potential for measuring growth longitudinally because

- some represent finite item sets (Letter Identification, Word Reading),
- others require a time limit (Writing Vocabulary), and
- they measure processes that affect the beginnings of literacy (Concepts About Print, Hearing and Recording Sounds in Words).

Reading Recovery’s requirement that the lowest-performing children are selected for service first is made possible by using measures (Clay, 2002) very sensitive to small differences among children at the beginning point of learning to read and write and by the intense professional development Reading Recovery teachers receive. This requirement is reinforced by the strict standards for use of the trademarked name Reading Recovery, through the ready availability of data on every child collected and reported by the Reading Recovery National Data Evaluation Center, and through monitoring by Reading Recovery university training centers.

\textbf{Teaching Decisions}

The professional development components of Reading Recovery ensure that trained teachers are able to use their professional knowledge to make highly skilled decisions that enable accelerated student learning. To achieve results in a relatively short amount of time with children who struggle the most, teachers must be able to select “the clearest, easiest, most memorable examples with which to establish a new response, skill, principle or procedure” (Clay, 1993, p. 8). Here are examples of the types of decisions teachers need to make as they listen to a first-grade child read aloud.

(text from \textit{Three Little Pigs})

“The big bad wolf went to the \textit{home / house} of the third little pig.”\textsuperscript{13}

Teachers need to decide whether to ignore this substitution of \textit{home for house} or to make some response. A teacher operating from a simple theory of literacy learning and instruction that emphasizes accuracy would always see this as an opportunity to take some action to correct the error. A teacher who holds a simple theory based on meaning may never attend to this type of meaningful substitution.

Reading Recovery teachers, on the other hand, know that the decision about whether and how to attend to a substitution such as \textit{home for house} depends on several factors related to a series of changes that indicate learning progress. Some of those factors are illustrated through this second example:

(text from \textit{Where Are You Going, Aja Rose?})

“Where are you going, Aja Rose?” “I’m going to \textit{make / build a home / house}.”

Early in a child’s program the Reading Recovery teacher will ignore the \textit{home / house} substitution, instead selecting errors with less visual similarity like \textit{make / build}. This strategy enables the child to begin to use her developing phonemic awareness and sound-to-letter knowledge to

\textsuperscript{12} This is a description of U.S. practice, not what happens in other places. In New Zealand, all children are tested with the Observation Survey by classroom teachers at the child’s 6-year birthday; the lowest 30% are retested by Reading Recovery teachers, and then places are allocated by the school team.

\textsuperscript{13} The underlined word sets are miscues. The word before the slash is the child’s response; the word after the slash is the word contained in the text.
notice errors of this type. As the child gets better at noticing these gross visual errors, she searches for additional cues and begins to construct ways of combining the meaning, language pattern, and initial phonic information to support the reading. This active processing will accelerate the child’s learning.

Once a child’s initial attempts indicate that she consistently combines meaning, language structure, and the initial letter sound, the teaching decision might be quite different. Reading Recovery teachers encourage students to solve words based on multiple sources of information as their knowledge of print increases. To build that knowledge, readers need to learn how to check their predictions to see if they fit all of the visual information. Now the *home* / *house* substitution would be an excellent teaching point to help the child notice whether the ending letters match expectations (Schwartz, 1997, 2005), hence extending early noticing behaviors to attend to more print detail.

For a more advanced reader who has demonstrated the ability to effectively use a wide variety of print information while reading, the *home* / *house* substitution may again be worth ignoring, because this error can reflect the operation of a fluent reader whose eyes work ahead of voice as attention focuses on the construction of text meaning.

Clay (2001) refers to this type of instruction as the “interactive option” and suggests that it “offers the greatest pay-off for teaching” (p. 208). The high level of skill that Reading Recovery teachers develop—not only for making instructional decisions of this type during the reading of continuous texts, but also for building children’s processing systems through activities across other parts of lessons—is what enables children to accelerate their learning. Hence teacher understanding and skill are what make Reading Recovery most effective in achieving two positive outcomes for the children served. And skillful teaching is the basis of Reading Recovery’s ability to significantly reduce reading failure in a system in the most economical manner.

**Reading Recovery and the Boundary with Special Education: Some Specific Issues**

Reading Recovery children classified as *recommended for further evaluation* represent the boundary between Reading Recovery, special education, and other types of support for children whose reading lags greatly behind their peers. Reading Recovery has demonstrated that it realizes cost savings for school systems by reducing retentions and by reducing the number of children who undergo expensive evaluations and receive (potentially) multiple years of special educational services. Even among the *recommended* children these numbers are reduced, since many of them will have made significant learning progress and will not qualify as learning disabled. Nevertheless, special educational services will still be very much needed for some children, and other types of limited-term, less professional help may be needed for others of this group.

However, the boundary between Reading Recovery and special education is not clearly defined in school practice in the United States. The boundary is unclear

- for children within specific school systems because of locally or regionally established polices and procedures,
- for the field of education because of legislation and definitions related to categories of special needs, and
- for individual cases because of questions about performance.

**Policy and Procedural Issues**

Reading Recovery is designed to be a prereferral service for all the lowest-performing children who have been in formal education for one year; typically this means after a year of kindergarten. Following Reading Recovery service, those children who have not responded are classified *recommended for further evaluation* (see discussion above). This practice is consistent with special education theory which requires a strong intervention before a child is evaluated. However, in practice a referral initiated by the classroom teacher often occurs first, followed by a school team validation of the referral, then an intervention of some kind, and finally an evaluation (including psychological testing). Many school systems adopting Reading Recovery have not altered customary practice and have not immediately recognized Reading Recovery as the intervention that should play a key role in determining which children need to receive specialist evaluation for literacy-related issues.

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14 In countries using the British system, this may mean after a year mostly spent in an entrance class.
In such school systems conflicts can arise. One type of conflict occurs as children are referred by classroom teachers and begin the process of evaluation by school teams and specialists while their Reading Recovery lessons are still in progress. Occasionally, a child whose learning is accelerating and who is well on the way to successful discontinuation of lessons will suddenly be classified as learning disabled by school personnel who are not in communication with Reading Recovery teachers. In other school systems, a referral based upon outcomes after full Reading Recovery service of 20 weeks may not be honored or given priority, based upon prior experience that primary-grade special education placement seems ineffective or that test outcomes for third-grade students will be more certain to reveal discrepancies between potential and achievement.

The Definition Issue
Another type of conflict arises when a Reading Recovery recommended child is evaluated by specialists and denied special education classification because his or her literacy capabilities are too high. This difficulty stems in part from a statutory definition of learning disabilities as a discrepancy between intelligence and literacy performance usually measured with wide-range or survey achievement tests. Reading Recovery has produced some learning for children who are referred for testing, so it is often difficult to obtain a significant difference between standardized achievement and intelligence measures for 7-year-old children. Unless the school system recognizes and respects the power of Reading Recovery as an early intervention—and sees this child as an anomaly because of the lack of growth compared to the more typical Reading Recovery outcome of discontinued lessons—the child may be seen as not qualifying for special education. Many such children will qualify one or more years later when measurable discrepancy has increased sufficiently. Meanwhile the child will incur the negative effects of failure within classroom programs and be denied the benefits of appropriate programming received from special education personnel during early, more formative years.

A change in the definition of learning disabilities can alleviate many of the problems of spurious referral and over-referral, including both children served by Reading Recovery who no longer demonstrate special learning needs and children who may need continued learning support after Reading Recovery but who do not qualify on the basis of test results. The recommendation is to change the definition of learning disability so that it would include (if not center upon) the inability of a child to make learning progress through diagnostic teaching in a research-based, individualized intervention. Such change, however, will require expert study and opinion as well as political action. Contributors to the change process will include

- the voices of teachers on both sides of the boundary who observe and understand what can happen as a result of a strong intervention,
- the voices of educators who articulate theories and arguments that support the change, and
- research reports that validate those theories and arguments.

The Early Classification Issue
Another type of conflict arises for children who enter first grade already classified under a special education label. In an attempt to provide services to children when they are in their most formative years, children are being screened and tested during preschool programs or perhaps earlier. Most of the children who are identified receive a classification of developmentally delayed, although a few will receive other classifications depending upon specific handicaps or severity of impairment. In some systems these children receive special education services upon (or before) first-grade entry, sometimes in self-contained classes and sometimes through inclusion or resource rooms; thus these children are essentially denied the possibility of an intervention that may remove the special education classification and allow them to learn and function successfully in normal classrooms. In other systems, Reading Recovery personnel have been inflexible and refused to serve children who have already received special education classification because of the cognitive confusion that may be experienced by children who receive literacy instruction from two or three different instructional systems.

Most of these impasses can be alleviated by school administrators who establish collaboration among all those providing services to children—special educators, school psychologists, administrators, classroom teachers, and Reading Recovery personnel. This is not an easy hurdle to overcome; it requires cooperation in the face of differences in philosophies, theories of learning, and theories of reading acquisition. Nevertheless, these barriers are being overcome in some school systems. The power of Reading Recovery data and experience with reductions in referrals...
have prompted many special educators and classroom teachers to request that children receive Reading Recovery as a prereferral intervention. Changing the definition of learning disabilities to give greater weight to the outcomes of a powerful instructional intervention would also help to reduce early classification issues.

**Issues of Individual Performance**

Teaching and learning conditions for any individual child may not be satisfactory, especially for one who struggles with learning to read and write. Individual tutorial instruction that focuses on sensitive, systematic observation and contingent teaching yields the highest probability that each child will receive effective teaching. Teacher leader monitoring and consultation provides an additional safety net for those Reading Recovery children who struggle the most. Nevertheless, there will be occasional cases where a child does not receive adequate instruction and learning support. A Reading Recovery teacher may not respond well to a particular child or may have difficulty interpreting and meeting his or her learning needs. Classroom support and encouragement may be lacking for this individual child, or some particularly difficult life experience may affect the child’s learning progress. Collaboration among Reading Recovery personnel, classroom teachers, special educators, and administrators is needed to monitor such cases and alleviate their effects.

Another set of issues concerns what happens to children who are classified as recommended but not referred for specialist evaluation. These children seem to fall between the cracks because they do not yet show solid evidence that they can learn successfully in classrooms and keep up with the achievement levels of their age-mates, yet they do not have enough learning problems to qualify for special education services. They represent a positive outcome of Reading Recovery because (a) the number of such children has been significantly reduced within the system, (b) they are reliably identified on the basis of their Reading Recovery outcomes, and (c) they have made learning progress. Reading Recovery teachers, supported by the advice and expertise of special educators and classroom teachers, know enough about these children to make recommendations about the kinds of support that may benefit them the most. These may range across such possibilities as

- continued individual instruction for an extended, but limited period of time;
- small-group instruction of two to five students in order to build on opportunities for collaboration and peer scaffolding. A child may be placed in such groups only for the remainder of the first-grade year or for a period of time that extends through the summer or into the second-grade year; and
- instruction in group programs centered on a theory of literacy learning focused on a limited set of factors. For example, a theory of neurological processing could address particular aspects of literacy learning that appear to be in need of further development. Other programs might focus on a content-based or interest-based orientation, providing enriched, meaningful literacy-based activities.

One study of the progress of recommended students indicates that in second through fifth grades, 31–58% of this group still receives below-average grades from their classroom teachers, compared to just 11–18% of their peer groups whose series of Reading Recovery lessons were previously successfully discontinued as first graders (Lukas, 2001). This difference in teacher evaluation reflects the continued at-risk status of the children in the recommended status category.

Research is needed also on the progress of recommended students under different types of supplementary literacy support. Implementing two different programs for these students and randomly assigning recommended students to the two programs and to a third control group would provide a simple research design to address this question. Tracking the progress of students in each program over time may suggest which factors are most important to support the literacy learning of these recommended students after Reading Recovery.

The training of Reading Recovery professionals provides them with an adequate basis for designing lessons for recommended students, but once children are determined to be in the recommended group and leave Reading Recovery service, Reading Recovery trained professionals need to become members of a team of specialist advisors including special education professionals. The teaching procedures, the time in lessons, and the goals of instruction in this phase may need to be different from those of Reading Recovery.

Ways to provide this supplementary support on a limited-time basis need to be explored. Schools need to reduce the
numbers of children currently referred for specialist examination and continue to provide special education services to children who need them. Several factors need consideration in efforts to create new designs for supplementary services for children who emerge from a strong intervention (Reading Recovery) in the recommended category:

• the initial progress made by those children while in Reading Recovery,
• expanded knowledge of reading development based upon recently published research, and
• collaboration among various service providers.

Both school administrators and university researchers and theorists have the responsibility to explore the possibilities, study their effects, and validate possible designs.

A Final Question and Summary
What is a reasonable figure for the percentage of children falling in the group classified as recommended for further evaluation, the second positive outcome of Reading Recovery? The number of recommended children reported in the national Reading Recovery data indicates that up to 3% of the total first-grade population might be recommended for further help in the United States (Gómez-Bellengé et al., 2003). This number may be somewhat high since children in the recommended status category are usually those whose lessons are not successfully discontinued during the first round of service. Several interrelated factors influence the first-round discontinuation rate (and therefore the percentage of those who fall into this group):

• Reading Recovery service effectiveness, which is affected both by the quality of the implementation and by Reading Recovery teaching effectiveness;
• availability of the teacher leader to work with Reading Recovery teachers to help solve teaching and learning problems with the hardest-to-teach children and to focus teachers on the intense analysis and reflection efforts needed when working with such children;
• selection and retention processes for Reading Recovery teachers. It is wise to select the best quality teachers to work individually with the weakest, most vulnerable students in the system, but it conflicts with customary views and practices of giving these children’s education the lowest priority;
• the effectiveness of Reading Recovery teachers with the most problematic learners among their Reading Recovery students; and
• priority given to assure that preschool programs as well as kindergarten and first-grade programs develop oral language capabilities, linguistic and phonemic awareness, and concepts about print, and that they allow for high levels of reading and writing engagement and content exploration and learning.

A comparison of local Reading Recovery data to national data may suggest that the percentage of children in the recommended category might be too high; if so, further investigation is needed and the possible contribution of any or all of the factors mentioned above needs to be explored.

Reading Recovery outcomes do not consist of clear, unambiguous categories. Not all children who receive what is considered a full series of lessons will successfully discontinue. But all children who do receive a full series—meaning that their lessons are successfully discontinued or they are recommended for further evaluation—represent positive outcomes: positive for the children themselves and positive for the educational system.

Reading Recovery personnel, working with administrators, classroom teachers, and special educators, should strive constantly to keep low the number of children in the categories recommended for further evaluation and none of the above. They should also work to manage efficiently the number of children who receive incomplete service. Regular, periodic use of data for evaluation and planning; collaboration among all educational agencies; skillful administrative leadership; consistent analytic teaching on the part of Reading Recovery personnel; and a reexamination of policies and procedures concerning services to the most problematic learners—all will contribute toward achieving critically important gains by children who need short-term supplementary support to experience success in literacy learning as well as those who need specialized long-term services.

References


the 12th Annual Reading Recovery Conference and National Institute, Columbus, OH.


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