

Research in Literacy and Teacher Development

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A STUDY ON THE COMPLEMENTARY EFFECTS OF READING RECOVERY AND SMALL GROUP INSTRUCTION FOR REVERSING READING FAILURE

Research Summary

Abstract

This study examined issues related to two types of early intervention, one-to-one tutoring and small group instruction. The progress of 307 children who participated in a two-tier approach to this type of supplemental help was investigated. Schools that participated in the study had Reading Recovery, a one-to-one tutorial, and the Arkansas small group model as the established approach to providing supplemental help to the lowest achieving children. Children who participated in the study were divided into four groups: a) Reading Recovery only, b) small group only, c) small group prior to Reading Recovery, and d) Reading Recovery prior to small group instruction. Pre-, post-, and end of the year test scores were collected from the six-part assessment, *An Observation Survey of Early Literacy Achievement*. The overall trend of the groups indicated that for the lowest achieving children, Reading Recovery was the most effective form of intervention and should be a “first-cut” diagnosis for effective supplemental help. Most children who participated in Reading Recovery successfully completed the program. Some children were able to reach average levels of performance with small group instruction alone. A large number of children need protracted periods of intervention, indicating that a two-tier approach including one-to-one and small group instruction is effective for addressing the needs of children who require supplemental help for longer periods of time.

Participants

Twenty-two schools from two large school districts in Arkansas participated in the study. Reading Recovery and the Arkansas small group model were implemented in these schools. The study included thirty teachers who were trained in Reading Recovery and small group instruction. These teachers taught at least four Reading Recovery students and at least one first grade small group

lesson daily. The study included 307 first grade students of African-American, Hispanic, and Caucasian descent who received Reading Recovery, small group instruction, or a combination of the two interventions during the 2001-2002 school year.

Procedures

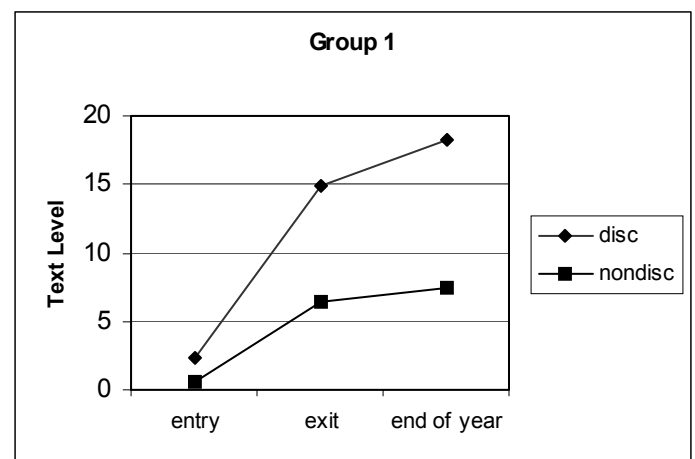
Using the six-part *Observation Survey of Early Literacy Achievement* and the *Scott Foresman Special Practice Books*, teachers assessed the lowest 30%-40% of the children in first grade and assigned the lowest achieving of these students to the available slots in Reading Recovery. The small group slots were assigned to the rest of the children needing supplemental help. Some of these children became second-round Reading Recovery students as slots became available when first-round children exited the tutorial. The assessments were administered at the beginning of the school year, at entry into Reading Recovery or small group instruction, at exit from either intervention, and at the end of the year. A database was created to record all scores for students who participated in: a) Reading Recovery only, b) small group instruction only, c) small group instruction prior to Reading Recovery, and d) Reading Recovery prior to small group instruction. In order to answer the questions, student progress was divided into two status categories, the first being successfully discontinued from supplemental instruction and the second being not discontinued from supplemental instruction.

The original study investigated students' progress on all six parts of the assessment. For the purposes of this report, the following research questions address text reading levels only.

Question #1: What was the progress of children who participated in Reading Recovery alone in terms of reading proficiency and numbers of lessons?

Of the 80 children who were served in the Reading Recovery only group, 60 (79 %) successfully discontinued from the program and were reading at or above grade level at the end of the intervention. Mean text level at the end of the program was 14.95 with a mean gain in text reading level of 12.53. These children received an average of 68 (SD 26.1) lessons. Children who did not successfully discontinue from Reading Recovery (N 20) were reading at a mean text level of 6.40 and a mean gain of 5.80 (SD 3.25). These children received an average of 85 lessons (SD 24.31).

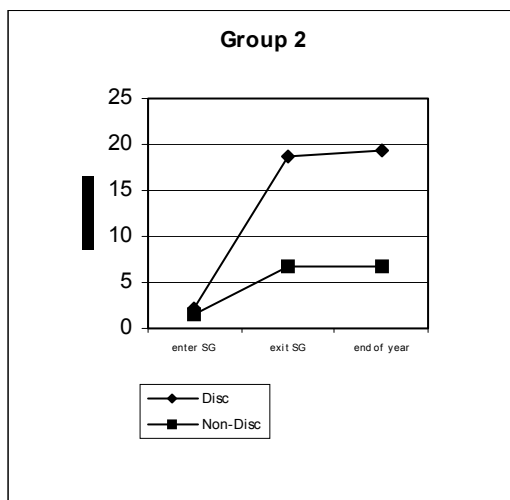
Figure 1
Progress in Text Reading Level of Discontinued and Non-Discontinued Children in Group 1 at Entry, Exit, and End of Year



Question #2: What was the progress of children who participated in the small group program alone in terms of reading proficiency and numbers of lessons?

Of the 117 children who were served in small group instruction alone, 73 (62 %) were reading at or above grade level at the end of the intervention. Mean text level at the end of the program was 18.6 (SD 3.7). Of these 73 children, 62 (85 %) were in the program from fall until the end of the school year. Children who did not successfully complete the small group program (N 44) were reading at a mean text level of 6.80 (SD 3.70) at the end of the intervention in first grade. Of these 44 children, 36 (82 %) were in the program from fall until the end of the school year. The other 8 children began the program later in the school year.

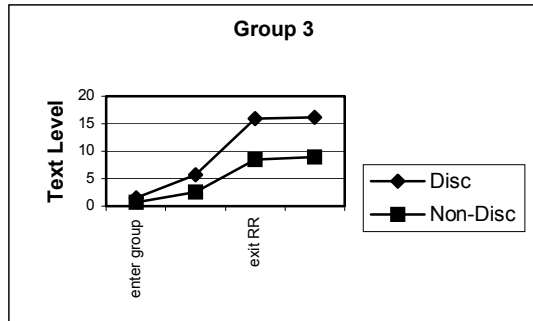
Figure 2
Progress in Text Reading Level of Discontinued and Non-Discontinued Children in Group 2 at Entry, Exit, and End of Year



Question #3: What was the progress of children who participated in small-group instruction prior to Reading Recovery in terms of reading proficiency and numbers of lessons?

A majority of the children in Group 3 were candidates for Reading Recovery at the beginning of the year. Consequently, they were waiting for a slot in Reading Recovery to become available as first round children exited that program. Of the 65 children who received small group instruction prior to Reading Recovery, 39 (60 %) successfully discontinued from Reading Recovery. Mean text level at the end of the intervention was 15.95 (SD 1.41). The average number of Reading Recovery lessons after participation in a small group was 39 (SD 14.25). Twenty-six (40 %) children who received small group instruction prior to Reading Recovery, did not discontinue from Reading Recovery. Mean text level was 8.46 (SD 3.12) at the end of the Reading Recovery program. The average number of lessons received in Reading Recovery was 26 (SD 17.58).

Figure 3
Progress in Text Reading Level of Discontinued and Non-Discontinued Children in Group 3 at Entry, Exit, and End of Year

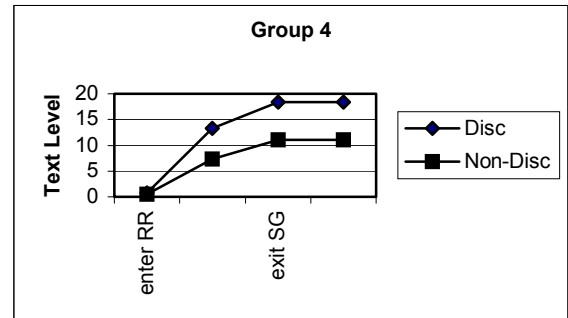


Question 4. What was the progress of children who participated in Reading Recovery prior to small group instruction in terms of reading proficiency and numbers of lessons?

Of the 42 children who received Reading Recovery prior to small group instruction, 16 (38 %) discontinued from Reading Recovery. Mean text level was 13.25 (SD 1.44) at the end of Reading Recovery and 18.37 (SD 2.33) at the end of small group instruction. The average number of lessons received in Reading Recovery was 80.56 (SD 9.75). Twenty-six (62 %) children who received Reading Recovery prior to small group instruction, did not discontinue from Reading Recovery. However, of those 26 children, 10 (38 %) were reading at or above text level 14 at the end of the year. An additional 3 (7 %) children were reading text level 12 at the end of the year. Mean text level was 7.38 (SD 2.88) at exit from Reading Recovery and 11.04 (SD 4.66) at exit from small group instruction. The average number of lessons received in Reading Recovery was 74 (SD 11.51).

Figure 4

Progress in Text Reading Level of Discontinued and Non-Discontinued Children in Group 4 at Entry, Exit, and End of Year



Question 5. How does the mean gain in text level reading compare between groups?

Several comparisons of mean gain in text reading level were statistically significant. The mean gain for discontinued children was statistically significant ($p < .05$) when Groups 2 and 4 were compared to Group 3. This suggests that the lowest achieving children need RR before small group instruction rather than vice versa. The mean gain for non-discontinued Group 4 (RR/SG) students was significantly higher than all other non-discontinued groups ($p < .05$ for Groups 1 & 2; $p = .057$ for Group 3). This finding implies that more intensive help followed by less intensive help is most effective for the lowest achieving readers. Additionally, the mean gain for non-discontinued Group 3 (SG/RR) was significantly higher than Group 2 (SG) ($p < .05$), which further supports the need for Reading Recovery for children with the greatest confusions.

Table 1
 Comparison of Text Level Mean Gains
 for Discontinued and Non-Discontinued
 Students From Entry to the End of the
 Year

Group Comparison	Discontinued			Non-Discontinued		
	N	Mean Gain	Sig. (2- tailed)	N	Mean Gain	Sig. (2- tailed)
Gr 1 (RR)	58	15.69	.210	19	6.84	.112
Gr 2 (SG)	73	16.66		44	5.20	
Gr 1 (RR)	58	15.69	.157	19	6.84	.273
Gr 3(SG/RR)	39	14.61		26	8.23	
Gr 1 (RR)	58	15.69	.084	19	6.84	.009
Gr4 (RR/SG)	16	17.68		26	10.58	
Gr 2 (SG)	73	16.66	.008	44	5.20	.001
Gr 3(SG/RR)	39	14.61		26	8.23	
Gr 2 (SG)	73	16.66	.372	44	5.20	.001
Gr 4(RR/SG)	16	17.68		26	10.58	
Gr 3(SG/RR)	39	14.61	.001	26	8.23	.057
Gr 4(RR/SG)	16	17.68		26	10.58	

Conclusions

- 1) The lowest achieving children need a one-to-one tutorial such as Reading Recovery. This should be the “first-cut” diagnosis for readers with the greatest confusions. Most children who have had the benefit of a full series of Reading Recovery lessons successfully discontinue

- and are able to benefit from classroom instruction alone.
- 2) A small percentage of children need protracted periods of intervention and require small group instruction after Reading Recovery. This is a positive outcome for Reading Recovery in that it has given these children a firm foundation enabling them to continue to progress from less intensive help in a small group.
 - 3) For some children, participation in a small group prior to Reading Recovery influenced their length of time in the Reading Recovery program.
 - 4) Small group instruction is most beneficial for children who need supplemental help of a less intensive nature. The average text level gain from fall to year-end for the lowest achieving children who received small group instruction only was small, indicating the need for one-to-one instruction, and small group instruction thereafter if necessary. This implies that small group instruction is not for children with the greatest confusions.
 - 5) Children served in small group instruction alone tend to be served in that capacity for longer periods of time, usually all of the first grade year.
 - 6) The Reading Recovery and small group programs are complementary service programs that recognize the diversity of student needs and enable more struggling readers to achieve proficiency in reading and writing.

Recommendations

Because children develop reading difficulties for different reasons, there is no one simple solution or program that will solve the problem. In addition to excellent classroom instruction, a range of services for early intervention is necessary including a) Reading Recovery, b) small group instruction, and c) special education. Intervention must begin early and for some children a protracted period of supplemental help is required. If the education community is to achieve the goal of every child reading by the end of the third grade, the study suggests the following recommendations:

- 1) Reading Recovery should be the “first-cut” diagnosis for children with reading difficulty.
- 2) Children served in the first round of Reading Recovery need to have programs lasting no longer than 20 weeks so that second-round Reading Recovery children are able to benefit from a full series of lessons, if needed.
- 3) If a child continues to need supplemental help after Reading Recovery, he or she should be placed in small group instruction.
- 4) Small group instruction should be provided for children in need of supplemental help in second and third grades.
- 5) To effectively meet the diverse needs of struggling readers, a comprehensive literacy model that includes both Reading Recovery and small group programs needs to be implemented. One of these programs alone is not enough.

References

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- Dorn, L., Allen, A. (1995). Helping low-achieving first-grade readers: A program combining Reading Recovery tutoring and small-group instruction. *Journal of School Research and Information*, 13, 16-24.
- Harrison, L. (2002). A study on the complimentary effects of Reading Recovery and small group instruction for reversing reading failure.

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