Summary of

GUIDED INDEPENDENT READING

An Examination of the Reading Practice Database and the Scientific Research Supporting Guided Independent Reading As Implemented in Reading Renaissance

Copyright © 2003 by Renaissance Learning, Inc.

All rights reserved. No portion of this book may be reproduced, by any process or technique, without the express written consent of the publisher.

AR, Accelerated Math, Accelerated Reader, Accelerated Vocabulary, "Better Data, Better Learning," Fluent Reader, Reading Renaissance, Renaissance, Renaissance Learning, Renaissance Place, STAR Early Literacy, STAR Math, and STAR Reading are trademarks of Renaissance Learning, Inc., and its subsidiaries, registered, common law, or pending registration in the United States and other countries.

RENAISSANCE LEARNING UK LTD.

32 Harbour Exchange Square

London E14 9GE, United Kingdom

020 7184 4000

www.renlearn.co.uk

SUMMARY OF GUIDED INDEPENDENT READING

AN EXAMINATION OF THE READING PRACTICE DATABASE AND THE SCIENTIFIC RESEARCH SUPPORTING GUIDED INDEPENDENT READING AS IMPLEMENTED IN READING RENAISSANCE

Contents

I. Introduction 3
II. Study Background and Findings 4
III. Conclusion 15
IV. Appendices 16

Introduction

Following is a summary of the 72-page research report, *Guided Independent Reading (GIR)*. *GIR* summarises the theoretical and evidence base for Reading Renaissance and builds on it through statistical examination of the Reading Practice Database (RPD). The RPD contains pre- and post-test STAR Reading scores and Accelerated Reader (AR) reading practice records for 50,823 students in grades 1–12 in 24 states who read more than three million books during the 2001–02 school year. The RPD is, we believe, the largest database ever assembled on student independent literature-based reading.

Also included in *GIR* is a history of the development of AR, Reading Renaissance, and the scientific research supporting both (see Appendix A on page 16 to view the table of contents from the full report).

We prepared this summary to make the information and complex statistical analysis more accessible and perhaps whet the appetite of educators to read the full report. The full report is available for free by calling Renaissance Learning at 020 7184 4000. Additionally, a copy of the full report is available for downloading at www.renlearn.co.uk.

Study Background and Findings

The 2000 National Reading Panel (NRP) report, which greatly influenced the federal No Child Left Behind and Reading First legislation, provided substantial scientific support for the practices recommended by Reading Renaissance. These include reading aloud, paired reading, and direct teaching of vocabulary, phonics, phonemic awareness, fluency, and comprehension.

The NRP, however, called into question the practice of "students reading individually on their own with little or no specific feedback." In other words, the NRP did not find scientific evidence for setting aside classroom time for unguided independent reading of library books, also called "free reading." Unfortunately, the NRP report did not go on to address guided independent reading *with feedback*, the kind of independent literature-based reading recommended in the Reading Renaissance program and supported by the Accelerated Reader (AR) daily progress-monitoring assessment system.

It is unfortunate that the NRP did not investigate guided independent reading, as the scientific research supporting this practice is very strong. One purpose of the *Guided Independent Reading (GIR)* study was to fill this gap by reviewing the current research on guided independent reading and by adding to the evidence base through the statistical examination of the Reading Practice Database (RPD).

The results are quite exciting. We confirmed most of the recommended practices of the Reading Renaissance program for guided independent reading. We also discovered some new, even startling, things. The principal findings include:

1. Guided independent reading practice accelerates reading growth for all students, regardless of reading ability. (Unguided independent reading practice, on the other hand, may not accelerate reading growth for many students.) The key to guiding reading practice is information feedback.

2. To successfully guide independent reading practice using the feedback provided by AR, teachers and students must focus primarily on the average percent correct scored on AR Reading Practice Quizzes. The higher the average percent correct, the higher the reading gains.

[1] Although the GIR report focuses on guided independent reading, AR also provides feedback on books read aloud, paired reading, textbook reading, magazine reading, and student understanding of higher-order thinking skills such as main idea, inference, and characterization.

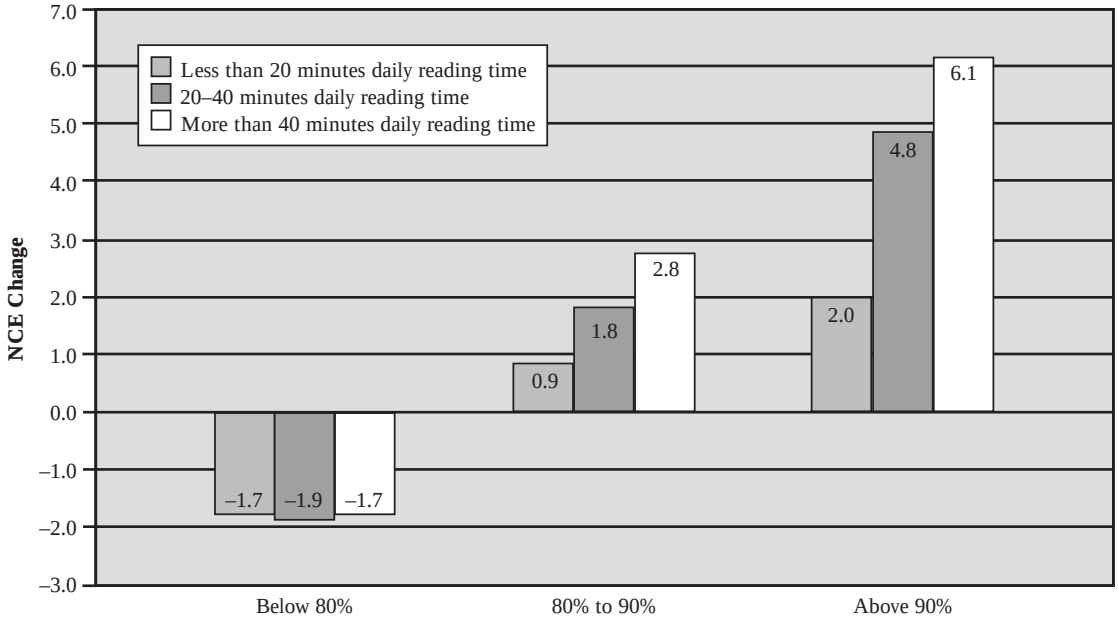
3. Increased reading practice time leads to greater reading growth when the reading practice is carefully guided. This is true for students of all ability levels in all grades. However, the law of diminishing returns applies. Ninety minutes of in-school engaged reading time is only slightly more beneficial than 60 minutes.
4. Teachers are the single most important factor in accelerating reading growth. Effective use of the data provided by AR enables teachers to accelerate reading growth for all students, including high- and low-achieving readers.
5. Reading behaviours differ between girls and boys. Lower average percent correct and higher rates of non-fiction reading may partially explain why boys tend to score lower than girls on reading achievement tests.
6. In the primary grades, low-achieving pupils benefit more from guided independent reading practice than high-achieving pupils. After fourth grade, however, both low- and high-achieving pupils benefit equally from guided independent reading.
7. Non-fiction reading is negatively correlated to reading gains and may be more difficult for students than fiction reading. However, many teachers are able to overcome the difficulty and help their students successfully read non-fiction books.
8. High implementation of Reading Renaissance, particularly in Renaissance-certified classrooms, leads to the greatest growth for all students.

Following is a discussion of each of these eight points.

1. *Guided independent reading practice accelerates reading growth for all students, regardless of reading ability. (Unguided independent reading practice, on the other hand, may not accelerate reading growth for many students.) The key to guiding reading practice is information feedback.*

While this finding was not startling, the picture that emerged from examination of the RPD greatly clarified the positive effects of guided independent reading. Shown in Figure 1 is a graph that summarises one of the more important tables from the full report.

Figure 1: Impact of Guided Independent Reading and Average Percent Correct
2001–02 School Year, Grades 2–12 Combined (N=45,670)

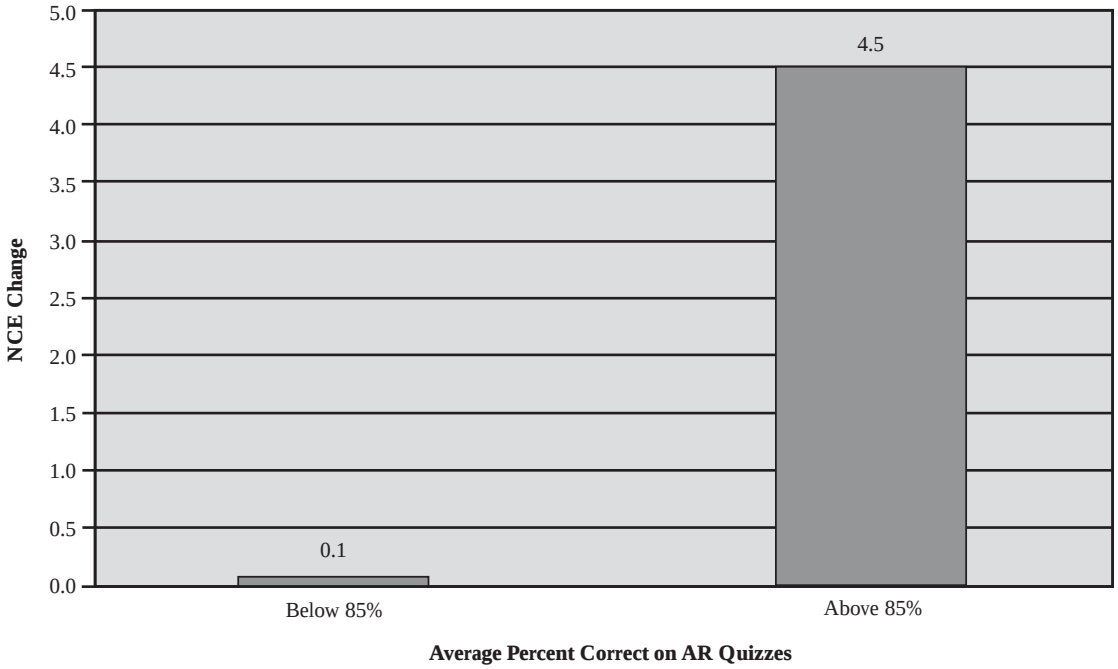


This graph vividly shows that when students are left to "just read" with little or no guidance (as indicated by a low average percent correct on AR quizzes), their reading scores can actually decline. The active guidance, intervention, and teaching provided by teachers is necessary to ensure adequate comprehension and reading gains.

2. *To successfully guide independent reading practice using the feedback provided by AR, teachers and students must focus primarily on the average percent correct scored on AR Reading Practice Quizzes. The higher the average percent correct, the higher the reading gains.*

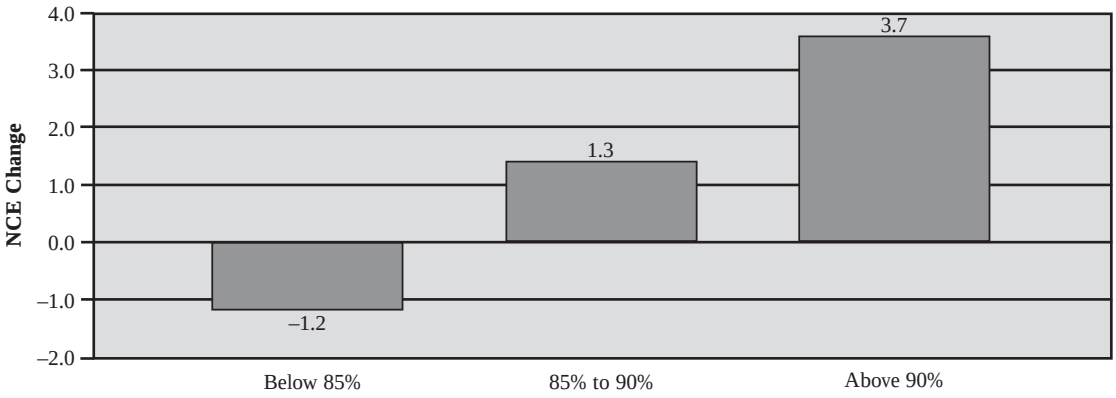
Figure 1 also shows the importance of high levels of successful independent reading as defined by high average percent correct on AR quizzes. Reading Renaissance recommends that teachers guide and instruct students so they achieve an average of 85% or more correct on their AR quizzes. The 85% rule was generally confirmed by the *GIR* study. Figure 2 shows the difference in gain students achieved above and below 85% correct.

Figure 2: Average Gain Above and Below 85% Correct
Students in Grades 2–12 with >20 Minutes Daily Reading Time (N=30,907)



However, our research shows that pupils in fourth grade and above made lower gains than pupils in grades 1–3. The data indicate that, for older students, a target of 90% correct on AR quizzes may be more appropriate to ensure consistently high average gains in reading ability. This is shown in Figure 3 (next page).

Figure 3: Average Gain Below 85%, 85%–90%, and Above 90% Correct
Students in Grades 4–12 with >20 Minutes Daily Reading Time (N=18,051)

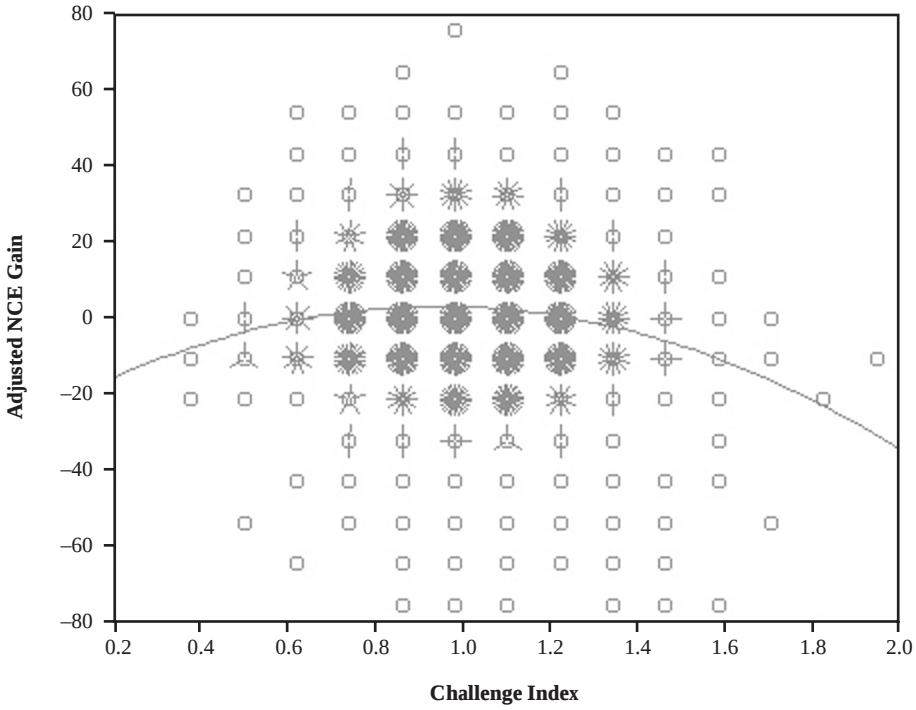


We also found that reading ability improves steadily as students' average percent correct on AR quizzes increases (up to approximately 97%). Therefore, the previous Reading Renaissance recommendation that teachers should guide students to read more difficult books when average percent correct exceeds 92% correct was not confirmed. As a result, we now recommend that students average 85% or higher on AR quizzes instead of the previous 85–92% range.

Analysis of the RPD did confirm the recommended Reading Renaissance book levels (ZPD ranges) and also the predicted shape of the ZPD curve (see Figure 4). (ZPD stands for "zone of proximal development"—the level of practice that is challenging but not frustrating and leads to optimum growth.) Improvement in reading achievement drops when students read too many books above or below their recommended ZPD ranges. On the other hand, we found the ZPD curve to be fairly flat and, while statistically significant, not highly predictive of gain.

Figure 4: Scatter Plot of NCE Change as a Function of Challenge Index[2]

Students in Grades 3–12 with At Least 20 Minutes of Daily Engaged Reading Time



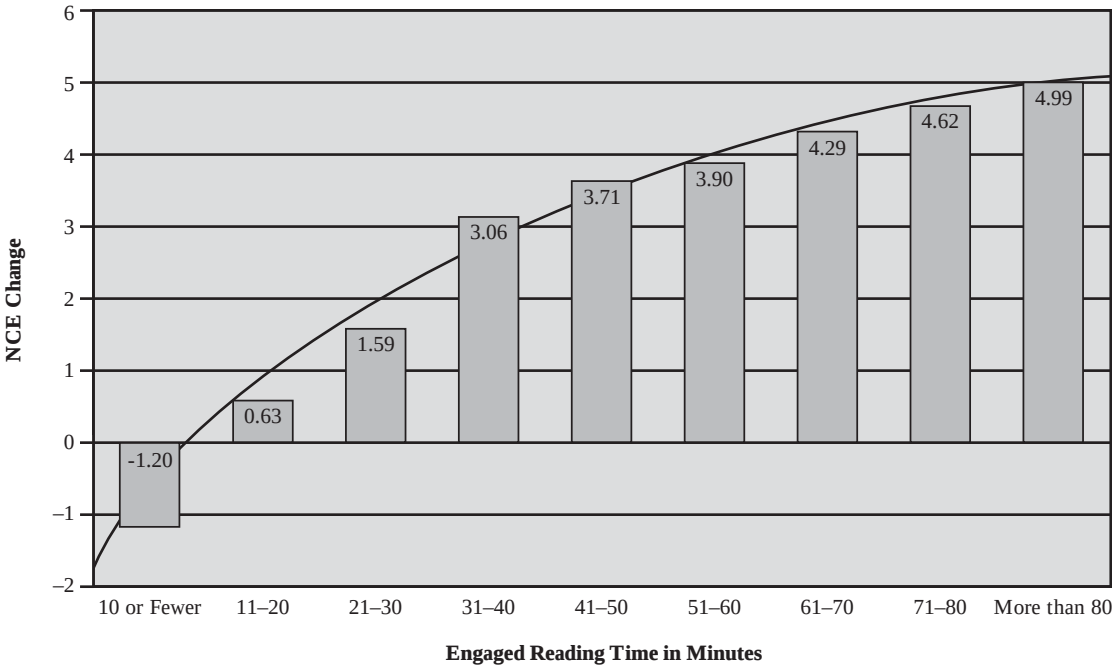
The relatively flat ZPD curve is good news because it shows that student achievement can improve by reading a wide range of books of varying levels of difficulty. The data indicate that teachers should allow students a fair amount of freedom to choose a wide range of books and follow their interests. This increases student motivation and helps make reading more successful. As has always been recommended by Reading Renaissance, the most important metric for teachers to watch is average percent correct on AR quizzes, followed by engaged reading time as measured by AR points, and finally, ZPD. In other words, students' guided independent reading should focus first on quality, then quantity, and then level.

[2] The Challenge Index is equal to (actual average book level) ÷ (predicted average book level from regression by pretest NCE level).

3. *Increased reading practice time leads to greater reading growth when the reading practice is carefully guided. This is true for students of all ability levels in all grades. However, the law of diminishing returns applies. Ninety minutes of in-school engaged reading time is only slightly more beneficial than 60 minutes.*

The Reading Renaissance recommendation has been for schools to set aside 60 minutes per day for guided independent reading (less in grades K–2 when reading aloud and paired reading is emphasised more than independent reading). The *GIR* study confirmed that 60 minutes leads to high average reading gains. It also showed that the law of diminishing returns applies; 90 minutes is only marginally better than 60. The striking graph in Figure 5 is taken directly from the *GIR* study.

Figure 5: NCE Change by Engaged Reading Time Range, Grades 2–12 (N=45,670)



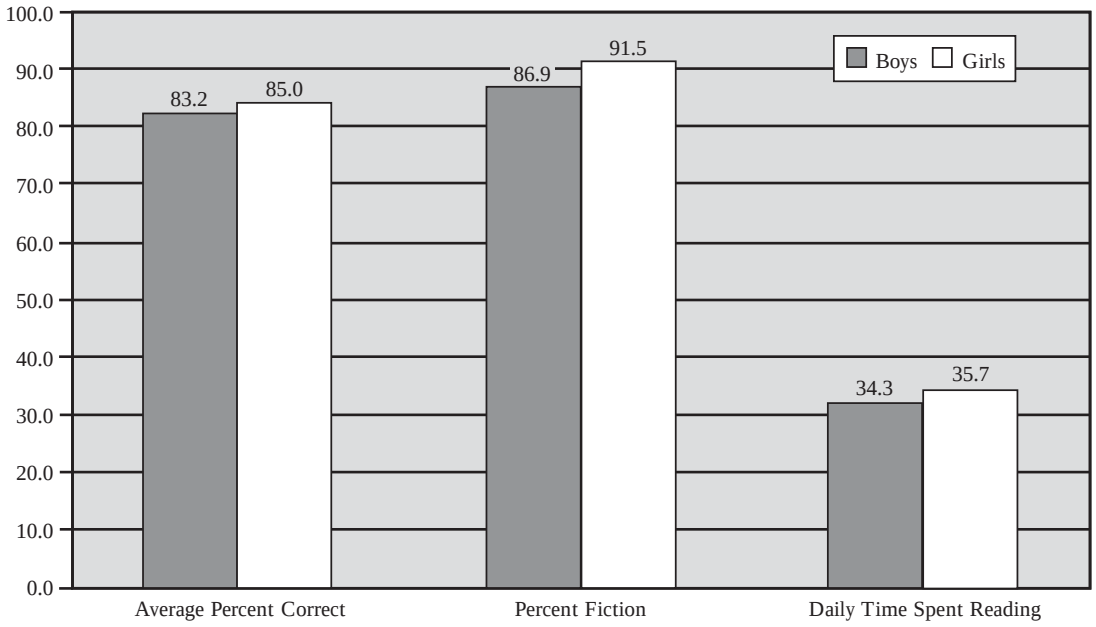
4. *Teachers are the single most important factor in accelerating reading growth. Effective use of the data provided by AR enables teachers to accelerate reading growth for all students, including high- and low-achieving readers.*

This is perhaps one of our most important findings. The NRP speculated that what explains how much reading practice students do is their initial reading ability. In other words, good readers read more because they were good readers to begin with. What we found in the *GIR* study, though, is that when teachers are using Reading Renaissance techniques, it is the teacher to whom the student is assigned which largely determines how much reading students do—not initial reading ability. On average, the portion of the variance in engaged reading time that is explained by the teacher and classroom to whom the student is assigned is more than 10 times the portion explained by the student's initial reading ability. In Reading Renaissance classrooms, students with low reading ability read almost the same amount of time as students with high reading ability. This means teachers can have a huge impact on motivation to read, thereby leveling the playing field and closing the gap in student achievement.

5. *Reading behaviours differ between girls and boys. Lower average percent correct and higher rates of non-fiction reading may partially explain why boys tend to score lower than girls on reading achievement tests.*

We found statistically significant differences (p 0.001) in the reading behaviours of boys compared to girls in grades 1–12 combined. Shown in Figure 6 next page is a bar chart summarizing those differences.

Figure 6: Gender Differences in Reading Behaviour
Students in Grades 1–12 with Known Gender (N=40,932)



Boys tend to score lower on their AR quizzes, spend less engaged time reading, and read less fiction than girls. Since all three factors are correlated to reading achievement[3], these differences in behaviour could explain, in part, why girls tend to do better on tests of reading ability than boys. This information is important for teachers who can affect each of these factors and help boys do better.

6. *In the primary grades, low-achieving pupils benefit more from guided independent reading practice than high-achieving pupils. After fourth grade, however, both low- and high-achieving students benefit equally from guided independent reading.*

We found that overall in grades 1–12 combined, students of all ability levels improved at about the same rate for equal amounts of engaged reading time. However, when we disaggregated the data by grade level, we found that while guided independent reading causes improvements in reading ability at all grade levels, low-achieving pupils improve faster than high-achieving pupils in grades 1–4. After fourth grade, however, both low- and high-ability students gain at about the same rate for equal amounts of guided independent reading. While these effects need to be explored further, we speculate that the root cause is the difference in the oral language experience between low- and high-achieving students. Oral language experience may set the upper limit on our ability to close the gap through guided independent reading.

[3] For further explanation of the effects of fiction vs. non-fiction reading, see page 13.

Interestingly, even though the rate of growth caused by independent reading was highest in the early grades, the actual effect size (the relative impact of guided independent reading practice) was greatest in grades above fourth grade. This shows that guided independent reading practice is valuable at all grade levels even though the gap is likely to close faster in the earlier grades.

7. *Non-fiction reading is negatively correlated to reading gains and may be more difficult for students than fiction reading. However, many teachers are able to overcome the difficulty and help their students successfully read non-fiction books.*

This finding was particularly surprising. *GIR* is the only research study we are aware of that has investigated the differential effects of fiction vs. non-fiction reading on reading achievement. The reading of non-fiction books is highly recommended by virtually all reading experts (Dreher, 1999; Parkes, 2001; Snow, 2002). Most adult reading is of non-fiction material. Also, it is hard to see how students can excel in social studies and science without reading a significant amount of non-fiction. The Reading Renaissance recommendation prior to *GIR* was that non-fiction reading account for 20% of AR points. Yet RPD data showed, on average, at all grade levels, that the higher the percent non-fiction reading a student does, the lower the gain in reading ability. In light of this finding, the Reading Renaissance recommendation for non-fiction reading has been lowered to 10–15% of AR points.

One possible explanation for the negative effect of non-fiction reading is that non-fiction reading is more difficult than (or at least different from) fiction reading. Also, schools often have a smaller selection of non-fiction books. Regardless, one would expect that teachers could make a big difference by instructing students on how to approach non-fiction reading and ensuring an adequate selection of non-fiction books. Indeed, we found that many teachers in the RPD database were able to help their students achieve relatively high average percent correct on their non-fiction reading along with strong reading gains.

8. *High implementation of Reading Renaissance, particularly in Renaissance-certified classrooms, leads to the greatest growth for all students.*

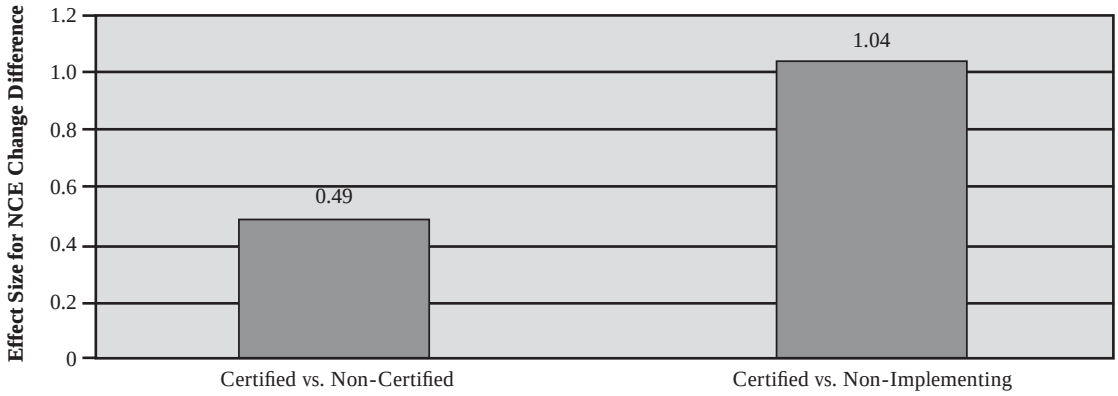
The RPD contains implementation data on a wide variety of classrooms, from those certified as being good implementers of Reading Renaissance to non-certified and non-implementing classrooms[4]. We measure the level of Reading Renaissance implementation through the implementation index, which ranges from 0 to 1. In the RPD, certified classrooms in grades 2–8 implemented at 0.65, non-certified at 0.31, and non-implementing at 0.03.

[4] Non-implementing classrooms are those with less than 10 minutes of daily engaged reading time.

One of the most common and accepted ways to statistically measure the effectiveness of an educational program is through a statistic called "effect size." Generally, an effect size of 0.5 is considered to be good.

Figure 7 illustrates the large effect sizes of reading gains for students in grades 2–8 (combined) in certified classrooms versus non-certified and non-implementing classrooms.

Figure 7: Effect Size for Certified vs. Non-Certified and Low-Implementing Classrooms
Classrooms in Grades 2–8 with >12 and <30 Students (N=1,806)



Conclusion

The National Reading Panel report provided much support for the principles of the Reading Renaissance program. However, it failed to specifically examine the practice of guided independent reading—an important part of Reading Renaissance. The *Guided Independent Reading (GIR)* study was intended to help fill that gap. The full report discusses the scientific research literature (the theoretical foundations) supporting guided independent reading and adds to the evidence base through a statistical examination of the Reading Practice Database (RPD). This summary of the complete 72-page study highlights several of the new insights gained.

We found that whereas letting students "just read" on their own can lower student reading achievement relative to their peers, highly successful independent reading practice is necessary to improve reading achievement. Successful independent reading requires the active guidance and teaching of teachers supported by the information feedback of Accelerated Reader (AR).

The recommendations in Reading Renaissance were generally supported by the *GIR* study, including allocating 60 minutes per day of classroom time for guided independent reading. We found, however, that the law of diminishing returns applies and allocating 90 minutes of in-school time for reading practice will yield only slightly greater gains than 60 minutes. Additionally, the average percent correct cap of 92% was not supported. Students continue to show reading gains with average percent correct on AR quizzes up to approximately 97%. Particularly, low-achieving students should strive for average percent correct in the 90s.

We found that boys not only read less than girls at all grade levels, they also scored lower average percent correct on AR quizzes, suggesting that they read less carefully. Boys also tend to read more non-fiction. When combined with our finding that non-fiction reading tends to be correlated with lower reading gains, this may partly explain why boys consistently lag behind girls in reading achievement.

We found when teachers properly implement the Reading Renaissance program for guided independent reading, it is a highly effective and powerful method for developing students who read well and are well read. Implementing Reading Renaissance with high integrity leads to the greatest growth in reading ability.

If you are interested in more comprehensive and in-depth information, the full *Guided Independent Reading* report is available for free by calling Renaissance Learning at (866) 846-7323 or visiting our website at www.renlearn.com.

Appendix A: Table of Contents from the Full Report

GUIDED INDEPENDENT READING

An Examination of the Reading Practice Database and the Scientific Research Supporting Guided Independent Reading As Implemented in Reading Renaissance

Contents

I. Introduction 5
II. Overview of Accelerated Reader 6
III. Overview of Reading Renaissance 8
IV. Research Supporting Reading Renaissance and Accelerated Reader 11
A. Research Supporting the Components of the Reading Renaissance Design . . . 11
1. High Levels of Success and Average Percent Correct 11
2. Reading at the Appropriate Level (ZPD) 13
3. Information Feedback 14
4. Target Setting 15
5. Personalised Teaching 15
6. Time Engaged in Guided Independent Literature-Based Reading 15
B. Evidence-Based Research for Reading Renaissance 20
V. Methodology and the Reading Practice Database 22
VI. Results 29
A. Engaged Reading Time 29
B. Average Percent Correct 32
C. Optimum Student Targets for Percent Correct and ZPD 38
1. The 92% Recommendation 38
2. The 85% Rule 38
3. Appropriate Book Level 41
D. Effect Size and Expected Improvement for High-Fidelity Implementation . . 44
E. Differential Effects 48
1. High- vs. Low-Achieving Students 48
2. Gender 49
3. Race or Ethnicity 50
4. Non-fiction Reading 50
VII. Discussion 53
A. Causation 53
B. Time 53
C. Fourth-Grade Slump 54
D. Average Percent Correct 55
E. ZPD and Book Level 55
F. Gender and Race 56
G. High- vs. Low-Achieving Students 56
H. Successful Reading Practice 57
I. Non-fiction Reading 58
J. Effect Size and Reading Improvement 58
K. Transferability 59
VIII. Conclusion 60
IX. Bibliography 61
X. Appendices 67
XI. Acknowledgements 72

Appendix B: Bibliography of the Full *GIR* Report

Allington, R.L. (2001). *What really matters for struggling readers: Designing research-based programs.* New York, Longman.

Allington, R.L. (1984). Content coverage and contextual reading in reading groups. *Journal of Reading Behavior, 16,* 85–96.

Allison, P.D. (1990). Change scores as dependent variables in regression analysis. *Sociological Methodology, 20,* 93–114.

Ames, C. (1990). Motivation: What teachers need to know. *Teachers College Record, 91*(3), 409–421.

Anderson, R.C. (1996). *Research foundations to support wide reading* (Tech. Rep. No. 631). Champaign: University of Illinois at Urbana-Champaign, Center for the Study of Reading.

Anderson, R.C., Hiebert, E.H., Scott, J.A., & Wilkinson, I.A.G. (1985). *Becoming a nation of readers: The report on the Commission of Reading.* Washington, DC: The National Institute of Education.

Anderson, R.C., Wilson, P.T., & Fielding, L.G. (1988). Growth in reading and how children spend their time outside of school. *Reading Research Quarterly, 23*(3), 285–303.

Armbruster, B.B., Lehr, F., & Osborn, J. (2001). *Put reading first.* Washington, DC: The Partnership for Reading.

Barr, R., Sadow, M.W., & Blachowicz, C. (1989). Influence of basal programs on fourth-grade reading instruction. *Reading Research Quarterly, 24,* 44–69.

Beck, I.L., & McKeown, M.G. (1991). Social Studies texts are hard to understand: Mediating some of the difficulties. *Language Arts, 68*(6), 482–490.

Berliner, D.C. (1990). What's all the fuss about instructional time? In M. Ben-Peretz & R. Bromme (Eds.), *The nature of time in schools* (pp. 3–35). New York: Teachers College Press.

Berliner, D.C. (1981). Academic learning time and reading achievement. In J. Guthrie (Ed.), *Comprehension and teaching: Research reviews* (pp. 203–225). Newark, DE: International Reading Association.

Betts, E.A. (1946). *Foundations of reading instruction, with emphasis on differentiated guidance.* New York: American Book Company.

Biemiller, A. (2003). Oral comprehension sets the ceiling on reading comprehension. *American Educator, 27*(1), 23.

Biemiller, A. (1999). *Language and reading success.* Cambridge, MA: Brookline Books.

Black, P., & Wiliam, D. (1998). Inside the black box: Raising standards through classroom assessment. *Phi Delta Kappan, 80*(2), 139–155.

Block, J.M. (1971). *Mastery learning: Theory and practice.* New York: Holt, Rinehart and Winston.

Bloom, B.S. (1984). The 2 sigma problem: The search for methods of group instruction as effective as one-to-one tutoring. *Educational Researcher, 13*(6), 4–16.

Bloom, B.S. (1976). *Human characteristics and school learning.* New York: McGraw-Hill.

Brophy, J., & Good, T. (1986). Teacher behavior and student achievement. In M.C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed.). New York: Macmillan.

Butler, R., & Nisan, M. (1986). Effects of no feedback, task-related comments, and grades on intrinsic motivation and performance. *Journal of Educational Psychology, 78*(3), 210–216.

Campbell, D.T., & Kenny, D.A. (1999). *A primer on regression artifacts.* New York: Guilford Press.

Chall, J. (1996). *Stages of reading development* (2nd ed.). Fort Worth, TX: Harcourt Brace.

Chall, J., Jacobs, V., & Baldwin, L. (1990). *The reading crisis: Why poor children fall behind.* Cambridge, MA: Harvard University Press.

Chomsky, N. (1957). *Syntactic structures.* Gravenhage: Mouton.

Cunningham, P.M., & Cunningham, J.W. (2002). What we know about how to teach phonics. In A.E. Farstrup & S.J. Samuels (Eds.), *What research has to say about reading instruction.* Newark, DE: International Reading Association.

Denham, C., & Lieberman, A. (1980). *Time to learn.* Washington, DC: U.S. Government Printing Office.

Deno, S.L. (1985). *Experimental teaching: An approach to improving student achievement, changing teacher beliefs, and identifying effective practices.* Minneapolis: University of Minnesota.

Din, F.S. (1998, March). *Use direct instruction to quickly improve reading skills.* Paper presented at the Annual National Conference on Creating the Quality School, Arlington, VA.

Donahue, P.L., Finnegan, R.J., Lutkus, A.D., Allen, N.L., & Campbell, J.R. (2001). *The nation's report card: Fourth-grade reading 2000* (NCES Publication No. NCES 2001 499). Washington, DC: National Center for Educational Statistics. Available online: <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2001499>.

Dreher, M.J. (1999). Motivating children to read nonfiction. *The Reading Teacher, 52*(4), 414–415.

Ehri, L.C. (1995). Phases of development in learning to read words by sight. *Journal of Research in Reading, 18*, 116–125.

Elley, W.B., & Mangubhai, F. (1983). The impact of reading on second language learning. *Reading Research Quarterly, XIX*, 53–67.

Fisher, C.W., Filby, N.N., Marliave, R.S., Cahen, L.S., Dishaw, M.M., Moore, J.E., & Berliner, D.C. (1978). *Teaching behaviors, academic learning time, and student achievement: Final report of Phase III-B, Beginning Teacher Evaluation Study.* San Francisco: Far West Laboratory for Educational Research and Development.

Fry, E. (2000). *How to teach reading.* Westminster, CA: Teacher Created Resources.

Fuchs, L.S., & Fuchs, D. (1988). Curriculum-based measurement: A methodology for evaluating and improving student programs. *Diagnostique, 14*(1), 3–13.

Gage, N.L., & Berliner, D.C. (1992). *Educational psychology* (5th ed.). Boston: Houghton Mifflin.

Gersten, R., & Carnine, D. (1981). *Administrative and supervisory support functions for the implementation of effective educational programs for low-income students.* Eugene: University of Oregon, Center for Educational Policy & Management.

Gickling, E.E., & Armstrong, D.L. (1978). Levels of instructional difficulty as related to on-task behavior, task completion, and comprehension. *Journal of Learning Disabilities, 11*(9), 559–566.

Goodman, K.S. (1986). *What's whole in whole language?* Portsmouth, NH: Heinemann.

Goodman, K.S., Goodman, Y., & Hood, W.J. (1989). *The whole language education book.* Portsmouth, NH: Heinemann.

Goodman, K.S., Smith, E.B., Meredith, R., & Goodman, Y. (1987). *Language and thinking in school: A whole language curriculum.* Katonah, NY: Richard C. Owen Publishers, Inc.

Haller, E., Child, D., & Walberg, H.J. (1988). Can comprehension be taught? A quantitative synthesis. *Educational Researcher, 17*(9), 5–8.

Hart, B., & Risley, T. (1995). *Meaningful differences in everyday parenting and intellectual development in young American children.* Baltimore: Brookes.

Harvey, S. (1998). *Nonfiction matters: Reading, writing and research in grades 3-8.* Portland, ME: Stenhouse.

Hattie, J.A. (1992). Measuring the effects of schooling. *Australian Journal of Education, 36*(1), 5–13.

Holmes, C.T., & Brown, C.L. (2003). *A controlled evaluation of a total school improvement process, School Renaissance* (Technical report). Athens: University of Georgia. (ERIC No. ED474261). Available online: http://eric.ed.gov.

Howell, D. (2002). *Statistical methods for psychology* (5th ed.). Pacific Grove, CA: Duxbury.

Johnson, B., & Stone, E. (1991). Is whole language restructuring our classroom? *Contemporary Education, 62*, 102–104.

Juel, C. (1991). Beginning reading. In R. Barr, M.L. Kamil, P.B. Mosenthal, & P.D. Pearson (Eds.), *Handbook of reading research* (2nd vol.). New York: Longman.

Kirsch, I., de Long, J., LaFontaine, D., McQueen, J., Mendelovits, J., & Monseur, C. (2002). *Reading for change: Results from PISA 2000.* France: Organization for Economic Co-Operation and Development (OECD).

Kohn, A. (2000). *The case against standardized testing: Raising the scores, ruining the schools.* Portsmouth, NH: Heinemann.

Kumar, D.D. (1991). A meta-analysis of the relationship between science instruction and student engagement. *Education Review, 43*(1), 49–66.

Laufer, B. (1989). What percentage of text-lexis is essential for comprehension? In C. Lauren & M. Nordman (Eds.), *Special language: From humans thinking to thinking machines* (pp. 316–323). Philadelphia: Multilingual Matters.

Lewis, M., & Samuels, S.J. (2003). *Read more—read better? A meta-analysis of the literature on the relationship between exposure to reading and reading achievement.* Minneapolis: University of Minnesota, Department of Educational Psychology. Available online: <http://www.tc.umn.edu/~samue001/papers.htm>.

Lipsey, M.W., & Wilson, D.B. (1993). The efficacy of psychological, educational, and behavioral treatment: Confirmation from meta-analysis. *American Psychologist, 48*(12), 1181–1209.

Marliave, R., & Filby, N.N. (1985). Success rate: A measure of task appropriateness. In C.W. Fisher & D.C. Berliner (Eds.), *Perspectives on instructional time.* White Plains, NY: Longman.

Marzano, R.J. (2003). *What works in schools: Translating research into action.* Alexandria, VA: Association for Supervision and Curriculum Development.

Morrow, L.M., & Gambrell, L.B. (2000). Literature-based reading instruction. In M.L. Kamil, P.B. Mosenthal, P.D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (2nd vol.). Mahwah, NJ: Erlbaum.

Nagy, W.E., & Herman, P.A. (1987). Breadth and depth of vocabulary knowledge: Implications for acquisition and instruction. In M.G. McKeown & M.E. Curtis (Eds.), *Nature of vocabulary acquisition* (pp. 19–35). Hillsadle, NJ: Lawrence Erlbaum Associates.

Nation, P. (1990). *Teaching and learning vocabulary.* Boston: Heinle & Heinle.

National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing Office. Available online: <http://www.nichd.nih.gov/publications/nrp/smallbook.htm>.

National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups (NIH Publication No. 00-4754).* Washington, DC: U.S. Government Printing Office. Available online: <http://www.nationalreadingpanel.org/Publications/subgroups.htm>.

Neuman, S.B., & Celano, D. (2001). Access to print in low-income communities: An ecological study of four neighborhoods. *Reading Research Quarterly, 36*(1), 8–26.

Nunnery, J.A., Ross, S.M., & Goldfeder, E. (2003). *The effect of School Renaissance on TAAS scores in the McKinney ISD*. Memphis, TN: University of Memphis, Center for Research in Educational Policy. Available online: <http://crep.memphis.edu/web/research/pub/McKinney_Renaissance_CR_09-09-03.pdf>.

Palinscar, A.S., & Brown, A.L. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction, 1*, 117–175.

Parkes, B. (2001, May/June). Real-world reading: Nonfiction opens doors to a life of learning. *Creative Classroom,* 46–50. Available online: <http://www.pearsoned.com.au/schools/primary/pdf/pdArticles/Realworld.pdf>.

Paul, T.D. (1993). *National study of literature-based reading: How literature-based reading improves both reading and math.* Madison, WI: Institute for Academic Excellence.

Paul, T.D. (1992). *1992 National reading study and theory of reading practice.* Madison, WI: Institute for Academic Excellence.

Rich, S. (1985). Whole language: The inner dimension. *English Quarterly, 18*(2), 23–27.

Rosenshine, B., & Stevens, R. (1984). Classroom instruction in reading. In P.D. Pearson (Ed.), *Handbook of reading research* (pp. 745–798). New York: Longman.

Sadusky, L.A., & Brem, S.K. (2002). *The integration of Renaissance programs into an urban Title I elementary school, and its effect on school-wide improvement* (Technical report). Tempe: Arizona State University. Available online: <http://drbrem.ml1.net/renlearn/publications/RR2002.pdf>.

Samuels, S.J., & Wu, Y. (2004). *How the amount of time spent on independent reading affects reading achievement: A response to the National Reading Panel.* Unpublished manuscript, Minneapolis: University of Minnesota, Department of Educational Psychology. Available online: <http://www.tc.umn.edu/~samue001/papers.htm>.

Samuels, S.J., & Wu, Y. (2003). *The effects of immediate feedback on reading achievement.* Manuscript submitted for publication, University of Minnesota. Available online: <http://www.tc.umn.edu/~samue001/papers.htm>.

Sanders, S.J., & Topping, K.J. (1999). *Teacher Effectiveness and Computer Assessment of Reading,* (Technical Report). Knoxville, TN: Value Added Research and Assessment Center.

Scheerens, J., & Bosker, R. (1997). *The foundations of educational effectiveness.* Oxford, UK: Pergamon.

Shany, M.T., & Biemiller, A. (1995). Assisted reading practice: Effects on performance for poor readers in grades 3 and 4. *Reading Research Quarterly, 30,* 382–395.

Skinner, B.F. (1968). *The technology of teaching.* Englewood Cliffs, NJ: Prentice-Hall.

Skinner, B.F. (1954). The science of learning and the art of teaching. *Harvard Educational Review,* 86–97.

Slavin, R.E., Karweit, N.L., & Madden, N.A. (1989). *Effective programs for students at risk.* Boston: Allyn and Bacon.

Snow, C.E. (2002). *Reading for understanding: Toward an R&D program in reading comprehension.* Santa Monica, CA: Rand.

Snow, C.E., Burns, M.S., & Griffin, P. (Eds.). (1998). *Preventing reading difficulties in young children.* Washington, DC: National Academy Press.

Stahl, S.A. (1998). Four questions about vocabulary. In C.R. Hynd (Ed.), *Learning from text across conceptual domains* (pp. 73–94). Mahwah, NJ: Erlbaum.

Stahl, S.A., McKenna, M., & Pagnucco, J. (1994). The effects of whole-language instruction: An update and reappraisal. *Educational Psychologist, 29*(4), 175–185.

Stahl, S.A., & Miller, P.D. (1989). Whole language and language experience approaches for beginning reading: A quantitative research synthesis. *Review of Educational Research, 59,* 87–116.

Sticht, T.G., & James, J.H. (1984). Listening and reading. In P.D. Pearson (Ed.), *Handbook of reading research* (pp. 293–318). New York: Longman.

Topping, K.J., & Sanders, W.L. (2000). Teacher effectiveness and computer assessment of reading: Relating value-added and learning information systems data. *School Effectiveness and School Improvement, 11*(3), 305–337.

Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Walberg, H.J. (1999). Productive teaching. In H.C. Waxman & H.J. Walberg (Eds.), *New directions for teaching practice and research* (pp. 75–104). Berkeley, CA: McCutchen Publishing Corporation.

Walberg, H.J. (1996). U.S. schools teach reading least productively. *Research in the Teaching of English, 30*(3), 328–343.

Walberg, H.J. (1984). Improving the productivity of America's schools. *Educational Leadership, 41*(8), 19–27.

Wise, K.C., & Okey, J.R. (1983). A meta-analysis of the effects of various science teaching strategies on achievement. *Journal of Research in Science Teaching, 20*(5), 415–425.

Yu, V. (1993). Extensive reading programs—How can the best benefit the teaching and learning of English? *TESL Reporter, 26*(1), 1–9.

About Renaissance Learning

Renaissance Learning is the leading provider of computerised assessment and progress-monitoring tools for pre-K–12 schools and districts. Adopted by more than 67,000 North American schools, Renaissance Learning daily and periodic progress-monitoring systems give students, teachers, and administrators continuous formative feedback that informs teaching and helps teachers motivate students, accelerate learning, improve test scores, and ensure mastery of standards—all while reducing teacher paperwork.

Renaissance learning also has introduced Renaissance Place, the breakthrough technology that centralises all of your Renaissance software, student data, and students test scores into a single, convenient, web-based management system. The results are easy access—anytime and from any place, advanced statistical analysis, and consolidated school and districtwide reporting.



32 Harbour Exchange Square
London E14 9GE, United Kingdom
020 7184 4000
www.renlearn.co.uk

R37797