Summers Are Critical If We Want to Close the Rich/Poor Reading Achievement Gap

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The evidence is clear: Reading Recovery® is an effective early literacy intervention. In fact, Reading Recovery was the only intervention found to have strong positive evidence of effects in promoting reading development according to the federally sponsored What Works Clearinghouse ([WWC], 2008). Given that the WWC reviewed the research available for over 150 different reading programs, one could ask just how it was that “scientifically based reliable, replicable research” was supposed to be the key quality that guided the design of reading instruction under the federal No Child Left Behind Act (NCLB), especially in guiding the selection of reading instructional programs. In other words, had the comprehensive review of research conducted by the WWC on reading programs been completed before NCLB was implemented, it seems that Reading Recovery would have been the only intervention allowed to be funded with NCLB funding!

However, for all the success that Reading Recovery interventions have demonstrated the truth of the matter is that while many at-risk beginning readers are recovered with Reading Recovery instructional services and have their reading levels brought up to the standard of their peers in their classroom, too many students—particularly the students who are members of low-income families—still enter sixth grade with their reading development lagging well behind their more economically advantaged peers. Nationally and internationally the children who are commonly lagging behind in reading proficiency are the children who live as members of low-income families. It is these children that are the focus of this article. I write about them because while American teachers and schools have reduced the Black/White reading achievement gap by almost half since 1966—when the federal Title I remedial reading program of the Elementary and Secondary Education Act (ESEA) was implemented in schools serving large numbers of low-income children—American schools and teachers have not been so successful ensuring the development of reading proficiencies with children from low-income families.

The Rich/Poor Reading Achievement Gap

The rich/poor reading gap has actually widened over the same period that the Black/White gap narrowed (Reardon, 2011, 2013). The reading achievement gap between kids from the 90th and 10th percentile income families, the rich and the poor children, grew from 0.90 SD to 1.25 SD, an increase of 40%. At the same time period, the reading achievement gap between Black and White kids shrank from close to 1.25 SD to less than 0.75 SD. The reading achievement gap is present when kids begin school, and schooling currently does not remove the achievement gap. Basically, this widening of the rich/poor reading achievement gap occurred because while the performance of low-income children in reading has risen over time; their reading proficiency has just not risen as much as the proficiency of children living as members of higher-income families.

If one uses the National Assessment of Educational Progress (NAEP) reading outcomes, it is easy to see the growing achievement gap between rich and poor children (NAEP, 2013). By 4th grade, when the NAEP is first administered, the rich/poor reading achievement gap is about 1.5 years wide; by 8th grade that gap is approximately 3 years; and at 12th grade the rich/poor reading achievement gap is 4 years wide. In other words, free lunch-eligible students in 12th grade read as well as other children read in 8th grade! It is the ever-widening reading achievement gap that has fostered so many efforts to reduce it, most recently mandates to identify teachers whose students fail to perform well on such reading assessments.
The NAEP achievement data, like most other achievement measures, do make it look as though teachers in high-poverty schools are not doing a very good job in developing their students’ reading proficiencies. However, what almost everyone ignores when looking at such data is what has been labeled “summer reading loss” or “summer reading setback.”

Summer Academic Loss
Summer academic loss has been a topic of educational research for over a century. White’s early study of summer academic loss in 1906 along with Aason’s 1959 report on summer reading loss both reported the same findings: Students performed more poorly after summer vacation than they did before they took the summer break. Heyns (1978) wrote responding to the criticism of American schooling leveled by Coleman (1966). Heyns suggested that educational outcomes were far more equal than one would expect given the range of family incomes and ethnic origins of American students. She studied sixth- and seventh-grade students enrolled in the Atlanta public schools over an 18-month period.

Heyns (1978) noted that student learning grew much slower during the summer months than during the school year. However, she also noted that students from low-income homes registered summer reading losses, while students from middle-income homes registered small summer reading gains. In addition, students from middle-income families were far more likely to read during the summer months than students from low-income families. She suggested that ease of access to trade books was the most reasonable explanation for explaining the differences observed in children from different family socioeconomic levels.

In fact, Heyns noted that, “The presumption, which is rarely tested, is that reading influences achievement” (1978, p. 164). I suggest that this presumption is still rarely tested, at least experimentally. As the National Reading Panel (2000) noted, while much correlational research evidence exists demonstrating that better readers read more than struggling readers, correlational research does not imply causation.

However, Lindsay (2013) recently conducted a meta-analysis on the outcomes of rigorous experimental studies of increasing children’s access to trade books; where access was manipulated amongst populations of randomly assigned subjects, the impact of increasing book access on reading achievement produced an effect size of $d = 0.435$. Improving access to books also increased motivation to read with an effect size of $d = 0.967$. In other words, just improving the access that children had to trade books, especially children from low-income families, also improved voluntary reading activity and student reading achievement.

Lindsay’s (2013) meta-analysis is important if only because other meta-analyses have demonstrated that, as was the case in the Heyns’ study, children from low-income families lose reading proficiency over the summer months while middle-class children add reading proficiencies (Cooper, Nye, Charlton, Lindsay, & Greathouse, 1996). Cooper and his colleagues noted, “On average, summer vacations created a gap of about 3 months between middle- and lower-class students” (p. 261). This 3-month gap was the result of poor children losing about 2 months of reading development and middle-class children adding about 1 month of development. They also argued that the summer reading loss among poor children seemed linked to the differential access to books that poor kids experience during the summer months as compared to their more economically advantaged peers. “The income differences may be related to differences in opportunities to practice and learn (with more books and reading opportunities available to middle-class students)” (Cooper et al., p. 265).

Phillips and Chin (2004), drawing from the federal Prospects study data, also note that poor children lose reading growth during the summer while middle-class children add reading growth during this same period. They also reported that children who read at least 30 minutes daily during the summer months had significantly higher reading comprehension gains during the summer than those who read less, even when holding family income, parental education, and similar factors constant.

Finally, the amount of actual reading activity that students engage in during their reading instruction has been shown to be an important factor in explaining their reading development. Foorman, Schatschneider, Eakins, Fletcher, Moats, and Francis (2006) reported that the key factor in the reading instruction offered by over 100 observed first- and second-grade teachers was the time allocated to students for text reading. I say a key factor because it was the number of minutes of reading activity during the observed reading instruction that
explained any variance observed on any of the outcome measures, including word recognition, decoding, and reading comprehension. None of other aspects of the observed lessons were related to reading growth; including time spent on phonemic awareness, word recognition, or decoding. This study suggests that teachers should design their lessons such that student reading volume is expanded, perhaps by reducing the time planned for other and not very useful (here think of workbook work and round robin oral reading) activities, that too often replace reading activity in American classrooms and interventions.

Children’s Access to Trade Books

The relationship between easy access to books and reading achievement was first noted in 1937 by Waples who studied access to print as a variable in the lives of poor families during the depression. He documented that the proximity of libraries to homes, the supply of printed materials available in stores and newsstands in communities, and the number of books in the home were related to voluntary reading activity. He also noted that low-income families had more restricted access in each area than did more economically advantaged families.

A half century later, Neuman (1986) also noted that the number of books available in the home had an important positive relationship with the reading achievement of children. Neuman and Celano (2001) later found that in low-income neighborhoods, fewer books were available in stores, childcare centers, and local elementary school and public libraries. Also, in low-income neighborhoods, the books that were available were both older and of lower quality than the books available in middle-class communities. Similar findings about the limited access poor children have to books at school and at home is also reported by McGill-Franzen, Lanford, and Adams (2002), Constantino (2005), and McQuillan and Au (2001).

Most recently, Schubert and Becker (2010) reported that the number of books in the home was a significant predictor of student reading achievement even when family income, parental education, language used in the home, and other factors were controlled. The relationship of the home environment to reading achievement was almost as large as family income in predicting reading proficiency. A similar finding was reported by Evans, Kelly, Sikora, and Treiman (2010) in their analysis of access to reading materials for 70,000 children in 27 nations. While statistically controlling for differences in family income, father’s occupation, and parental education, they reported the size of the effect of home access to books on reading achievement was about the same size as parental education — twice as large as father’s occupation and stronger than family income.

Thus, the research now available indicates that poor children often live in homes and neighborhoods that could be thought of as print deserts (Tracey, 2015). But, of course, these poor children also attend school and that fact, we often think, should ameliorate the access to print problem in their homes and communities. However, the research tells us differently.

Pribesh, Gavigan, and Dickinson (2011) examined differences in school libraries including staffing and hours of operation plus the numbers of titles available. They found, “alarmingly, that the students most in need—those attending schools with the highest concentrations of students living in poverty—had the fewest school library resources to draw upon” (p. 143). Various reasons have been offered as to why schools enrolling many poor children have substantially inferior classroom and school library collections, but I have found none of the reasons offered to be very compelling. Such schools spend more money than middle-class schools do on workbooks and test preparation materials, items that have never demonstrated any role in improving reading achievement. It seems that it isn’t a lack of funding that limits the access children have to books in high-poverty schools.

Of course there remains the possibility that classroom libraries in high-poverty schools are rich and large, perhaps offsetting the lack of school library resources. However, Duke (2000) noted that classroom access to books was far higher in schools that served children from middle-income families than in schools that served children from low-income families. It wasn’t just that middle-class children had greater access to books either, because when compared to the contexts and experiences of poor students she found that middle-class children had

- more books and magazines in classroom libraries,
- more books and magazines displayed in classrooms,
• more opportunities to use the classroom library,
• more opportunities to read extended texts during the school day, and
• more opportunities to choose the books that they did read.

On the other hand, students from low-income families attending school where many other poor children also attended had more opportunities to do worksheets than did middle-class children. Unfortunately, unlike wide reading, doing worksheets is one of those aspects of schooling that has never been proven to have a positive effect of reading development (Anderson, Brubaker, Alleman-Brooks, & Duffy, 1985; Cunningham, 1984).

Why Do Students from Low-Income Families Lag Behind Their More-Advantaged Peers?
Duke (2000) also noted that very early in the schooling process students attending schools where the majority of other children are children from low-income families have “very different educational experiences than their peers who come from higher-income families and attend schools with mostly higher-income students” (p. 471). Duke suggests that such environmental and instructional differences seem better explanations for the observed differences in reading achievement than many of the traditional explanations that dominate current discussions of needed educational reform.

While I basically agree with Duke’s assertion, she does not mention summer reading loss. Perhaps this should not be surprising, since almost no one else mentions summer reading loss as a significant source of the rich/poor reading achievement gap either. However, it is my data-based belief that summer reading loss largely explains why children from low-income families fall further and further behind their more-advantaged peers with each and every year of schooling. It is also my belief that the teachers working in high-poverty schools are typically equally as effective in developing reading proficiencies as the teachers working in schools serving middle-class children. Finally, I believe that lack of access to books, during the summer months, is the primary cause of summer reading loss. Each of these beliefs is also supported by the data provided by several studies.

We can begin with the original Heyns (1978) study where there were few differences in reading development between rich and poor children during the school year but differences were found for reading development during the summer vacation periods. Hayes and Grether (1983) reported the same outcome in their analyses of reading achievement between Grade 2 and Grade 6 in 600 New York City schools. They estimated that 80% of rich/poor reading achievement gap occurred during the summer months when schools were not in session. In other words, the 2-year 7-month rich/poor reading gap that existed at the end of sixth grade was mostly accumulated year after year during the summer school vacation periods.

Likewise, Alexander, Entwisle, and Olson (2007) report that their analyses of the longitudinal achievement data from a Baltimore County school system indicated that rich and poor children do indeed acquire the same amount of reading growth during the school year in Grades K–9. However, they also noted that there seems to be a widespread impression that poor children are routinely shortchanged by their schools. In fact, poor and middle-class children make comparable achievement gains during the school year [emphasis added]. But while middle-class children make gains during the summer when they are out of school, poor or disadvantaged children often lose ground academically. (Entwisle, Alexander, & Olson, 2001, p. 11)

My point here is simple: In too many school systems we seem to have identified the wrong basis to explain the rich/poor reading achievement gap. This is not to say that improving reading instruction in high-poverty schools is unnecessary. Given the rich data supporting the importance of providing all children with high-quality reading instruction, it only makes sense to ensure that teachers in high-poverty schools are well prepared and well supported to offer such lessons. In fact, there is good research evidence on the power of high-quality professional development and initial reading development (McGill-Franzen, Allington, Yokoi, & Brooks, 1999; Scanlon, Gelzheiser, Vellutino, Schatschneider, & Sweeney, 2008). In both studies, substantial and effective professional development for kindergarten teachers resulted in dramatic reductions in the numbers of children experiencing difficulties with early reading acquisition. In the McGill-Franzen et al. (1999) study, kindergarten teachers in the books-plus-professional-development classrooms participated in 3 days of professional development.
before school began and then continued participating in monthly professional development sessions across the school year. Literacy coaches provided in-classroom support to assist teachers in implementing more-expert early literacy lessons including reading books aloud to children at least twice each day. Kindergarten teachers in the books-only (no professional development) classrooms received the same supply of children’s books for their classroom libraries as the books-plus-professional-development teachers. End-of-year outcomes indicated enormous differences in early literacy development for the teachers in the books-plus-professional-development classrooms compared to the student outcomes in the books-only classrooms.

Of particular interest also, was the fact that in the Scanlon et al. (2008) study, fewer kindergarten children were at risk for reading failure after teachers participated in the professional development program than students who were provided small-group expert reading intervention in classrooms where teachers did not receive professional development. Thus, it looks as if most struggling early readers are struggling because their classroom teachers simply lack the expertise needed to teach them to read successfully. It also seems that classrooms that enroll many children from low-income families present a greater number of children who need more-expert reading instruction. The major lesson we should draw from the research is that virtually every child could be developing reading proficiencies in kindergarten and first grade. If there are beginning readers who are experiencing difficulty we should probably ensure, at the very least, that the classroom teachers of those children have acquired the level of expertise necessary to teach every child to read.

Here is where Reading Recovery teachers could, and probably should, play important roles. When Reading Recovery is fully implemented in a school, Reading Recovery teachers could be working with small groups of at-risk kindergarten students to accelerate their early literacy development. One model that Reading Recovery teachers might use is described by Owens (2015). In this case, Interactive Writing (IW) activities are provided in the classroom, and in addition to the classroom lessons, the IW process is also used in the interventions that are provided to at-risk kindergarten students. Building on Clay’s (2005) argument that reading and writing development are reciprocal processes, IW provides lots of opportunities for literacy development in both small group and instructional one-to-one settings. As Owens noted, implementing IW with at-risk readers led to most at-risk readers developing advanced literacy proficiencies.

The second possible role for Reading Recovery teachers is working with primary-grade classroom teachers to support at-risk beginning readers. Schaefer (2015) describes such a model for fostering the expertise of primary-grade teachers. This is a collaborative inquiry-based form of professional development led, typically, by Reading Recovery teachers. I think it is the “collaborative” aspect of this effort that largely accounts for its success. By “collaborative” the model expects everyone involved to engage in planning, or rethinking, the literacy lessons and lesson segments the classroom teacher provides to at-risk beginning readers.

The goal in both roles is enhancing the reading instruction such that fewer children have difficulty with reading acquisition. Working with kindergartners will reduce the number of first-grade students who will need a Reading Recovery intervention. Working with primary-grade teachers should also reduce the numbers of at-risk children because enhanced reading lessons are more commonly available in the classroom following the collaborative professional development.

Beyond inexpert classroom reading lessons lies the now verified problems of ease of access to books for children from low-income families, which the data suggests leads to summer reading loss and largely explains the rich/poor reading achievement gap (Allington & McGill-Franzen, 2013). While the research is quite clear about the impact of summer vacations on the reading development, especially the loss of reading development in children from low-income families, there is less research on what teachers and schools might do in addressing summer reading loss effectively. Nonetheless, that research evidence is reviewed next along with suggestions for what that research says schools might do to interrupt summer reading loss.

What the Research Says About Interrupting Summer Reading Loss

As noted earlier in this paper, ease of access to reading material during the summer months, especially ease of access to trade books, seems to be a primary difference between children from low-income and other types of families. Thus, attempts to address summer reading loss have largely
focused on improving the access children have to trade books. Our study (Allington et al., 2010), for instance, supplied children—beginning with first- and second-grade students from low-income families—with 15 self-selected trade books each year over a 3-year period. Book fairs were offered in 17 high-poverty elementary schools each year in April. Randomly selected children attended the book fair and selected the books they wanted from roughly 500 book titles. On the last day of school each year the self-selected summer books were distributed to the summer books children.

Roughly 90% of the summer books students were African American or Hispanic and over two-thirds of the students were eligible for free or reduced-price meals. Thus, the children participating in our study were typically beginning readers who lived in a low-income family setting and most were minority students.

In this study, there were no other requirements; it was simply designed to ensure these children from low-income families had access to a supply of self-selected trade books to read during the summer months. After three summers of distributing the self-selected trade books, the summer books children had reading achievement performances significantly better than the control group students from their schools (who received no summer books). In fact, the observed difference in reading achievement on the Florida state assessment was a bit larger than a half-year at the end of the 3-year study favoring the children who received self-selected summer books. Basically, then, simply distributing self-selected books for summer voluntary reading largely interrupted summer reading loss. We also learned that the poorest children benefited the most from access to summer books since the overall impact on achievement for the free lunch-eligible children was substantially larger when compared to the growth in reading achievement of the other more economically advantaged children.

The study was rated as providing “near top tier” evidence of the effects of summer book distribution by the Coalition for Evidence-Based Policy (2011). Near top tier was the rating because it was only a single study done in a single state.

What we learned (Allington et al., 2010) was that solving the book access problem largely solved the problem of summer reading loss, particularly when working with children from low-income families. Because earlier research had identified self-selection of books as an important factor in determining whether children would voluntarily read the books that were available (Guthrie & Humenick, 2004; Lindsay, 2013), we allowed children to choose each of the 15 books they received for summer reading. Thus, our study was rather unique because the students were (a) beginning readers when the books were first distributed, (b) primarily minority students drawn mostly from low-income families, and (c) given the opportunity to choose books for summer reading that appealed to them.

In addition to our longitudinal study of summer book distributions, several single-year studies add to the database of studies addressing summer reading loss. In several of the studies reported by Kim (Kim, 2007; Kim & Guryan, 2010) they distributed summer books but report no positive effect on reading achievement. In these studies, though, students participating were not necessarily children from low-income families nor were they beginning readers, and the number of books that could be chosen to be distributed to children was smaller than the case in our study. However, Kim and Quinn (2013) along with White, Kim, Kingston, and Foster (2014) both report positive effects for distributing books for summer reading, with Kim and Quinn also noting that distributing books seems to have a larger impact on the reading development of children from low-income families but a reduced effect, if any effect, on students from more economically advantaged families.
The message for Reading Recovery teachers and the administrators in the schools where they work with children seems clear to me. Establish a summer book distribution program for Reading Recovery students. In fact, if you are a Reading Recovery teacher in a school with many children from low-income families enrolled, establish a summer book distribution program for all students. If children from low-income families spend little or no time reading voluntarily during the full summer vacation period, the research indicates that these children will experience summer reading loss. This summer reading loss is a rather small loss each year; but, cumulatively, summer reading loss is the reason too many children from low-income families enter high school with reading proficiency substantially lower than middle-class children.

The results of the meta-analysis on summer academic loss done by Cooper et al. (1996) indicates that, in general, the reading proficiency of children from low-income families falls, on average, 2 months every summer due to summer reading loss. This produces roughly a negative 3-month difference in annual reading growth when compared to middle-class children (the result of an annual average 2 months loss for poor children plus a 1-month gain for middle-class children). This accumulation of small annual losses largely explains the 4-year reading achievement gap one finds between free-lunch students (poor) and other students on the 12th grade National Assessment of Educational Progress (2013)! That is, after 12 years of schooling, a loss of 3 months reading growth each summer produces the 4-year reading gap.

Summary and Conclusion
The research evidence is clear, at least for children from low-income families. Improving these children’s access to books they can read and books they actually want to read during the summer months can largely disrupt summer reading loss. We accomplished this by running book fairs in high-poverty schools where children selected trade books for summer voluntary reading. Others (Kim & Quinn, 2013; Lindsay, 2013; White et al., 2014) have also demonstrated the positive effects that summer book distributions for children from low-income families can have on reading achievement.

We know a lot now about summer reading loss and how to disrupt it. What we also know is that few schools or school districts have taken any efforts to ease the problem of access to books that children from

Summer Reading Challenge
In May 2014, teachers at Lebanon Elementary School in Kentucky distributed six books and a writing journal to each of the approximately 420 students enrolled in the K–5 public school. The students were encouraged to read and write about books during the summer months and were promised a picnic if they completed at least six journal entries. When they returned to school last fall, 110 students — including 18 former Reading Recovery students — had read 724 books and were invited to a Reading Celebration Back to School Picnic. Reading Recovery students and teachers pictured here (left-to-right) in the front row are Rashaud Brown, Aubrey Price, Chanse Smith, Elizabeth Price, Brooklyn Thomas, Layne Ramey, and Tyler Smith. In the back row are Mary Leo Wimsatt, Abby Clark, Daylee Joglowicz, Clayton Whitlock, Rhea Fisher, MaShayla Furmon, and Melissa Murphy.
low-income families routinely experience. Reading Recovery teachers often work with children from low-income families and so I hope that this article stimulates action toward ensuring that all students—but especially students from low-income families—have easy access to books to read over their summer vacation periods.

We can defeat summer reading loss, and defeating it is not particularly expensive (in our study the annual cost was just under $50 per student each year). However, someone has to develop the plan that will ensure all children from low-income families have easy access to books they can read and that they want to read during the summer months.

References


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