

Overcoming the Educational Disadvantages of Poor Children: How Much Do Teacher Preparation, Workload, and Expectations Matter

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Supplemental materials: <http://dx.doi.org/10.1037/ort0000060.supp>

Advanced education contributes unquestionably to the economic advancement of individuals and families. It is ironic that the poorest children often attend schools that lack the resources to impart the skills children need to climb out of poverty. The result is a well-documented pattern of subpar academic achievement and high drop-out rates among the poorest of American children. Efforts to address this income achievement gap and improve academic achievement of children from low socioeconomic backgrounds may possibly be advanced by identifying factors such as malleable classroom characteristics that are most strongly associated with academic success. Accordingly, the aim of this article is to review data on aspects of the learning environment most closely associated with successful development of early academic competence, compare children from low socioeconomic backgrounds to children with higher socioeconomic status (SES) on access to academically auspicious environments, and use the findings to identify promising targets for social innovations aimed at improving the educational prospects of poor children.

The challenges of educating America's poor correctly point to differences in the skills children possess when they enter school. Children raised by parents with lim-

ited education and a dearth of social and financial resources have fewer experiences that stimulate cognitive growth. As a result, they arrive at school with fewer school readiness skills than other children. Specifically, Lynne Vernon-Feagons and colleagues found that a disproportionate number of poor children arrive at school with significant language deficits and greater risk for later reading difficulties. Consequently, children from low-SES households acquire language skills more slowly and exhibit delayed letter recognition and phonological sensitivity.

Historically, public education has been viewed as leveling the playing field so that children overcome the limitations arising from a disadvantaged family background. Whether schools rise to this challenge, children from low-SES households are much more dependent on school experiences for their literacy development than their more affluent counterparts.

Clearly children benefit from having both engaged families and effective schools, but when one is not available, the other can sometimes compensate. The poorest of American children, however, often lack both. As described by Jonathan Kozol in *Savage Inequalities: Children in America's Schools*, too many children from poor families attend schools that are unable to help them attain the skills they need to be successful. Valerie Lee and David Burkam from the University of Michigan noted in their review of data from the Early Childhood Longitudinal Study, Kindergarten Class (ECLS-K), "The least advantaged of America's children, who also begin their formal schooling at a substantial cognitive disadvantage, are systematically mapped into our nation's worst schools." Socioeco-

nom differences in school environments include characteristics such as safety, violence, and overcrowding. Differences can also be seen in the adequacy of facilities, teaching materials, and books.

Accordingly, schools serving high concentrations of poor children may themselves be handicapped by a mismatch between needs and resources, just as poor families are. As a result, they are unable to fulfill the social mandate to provide a level playing field in which all children—irrespective of their family circumstances—are given a fair chance to succeed. Psychologist Deborah Stipek has argued that palpable differences in school and classroom resources contribute to and exacerbate the income achievement gap. In this way, schools augment rather than mitigate the adverse effects of family economic disadvantage for poor children.

Teaching Practices and Outcomes

Differences in the school experiences of poor children do not arise entirely from inequitable facilities, teaching materials, and books. They also result from the quality of instructional interactions, curricula, and teaching practices. Better academic outcomes, particularly literacy and language skills, occur in classrooms that are not only rich in learning materials but also have teachers with high expectations of students and adequate preparation to teach. Experiences in these classrooms are filled with opportunities for active engagement with materials, particularly opportunities for practicing reading and writing.

Classrooms serving low-SES communities are not consistently characterized by

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these process qualities. Instead, instruction in these classrooms tends to rely more on drill and practice, includes fewer conceptual explanations, fails to nurture higher order thinking skills, focuses on “basic” instead of

degrees and training. Sociologist Doris Entwistle and others have pointed to the important ways in which teacher beliefs and expectations influence student performance. For example, children for whom teachers

lighter the teaching load in terms of class size and concentration of struggling students, the more likely it is that teachers will have the time to devote to raising children’s reading levels. Ironically, the least experienced teachers have the highest teaching loads by virtue of their assignment to schools in poor communities.

Teacher beliefs about and expectation of their students may be just as important as degrees and training

“advanced” competencies, is less varied and extensive in topical range, is more repetitive and fragmented from wider bodies of meaning, emphasizes discipline and control of interactions and learning tasks, and focuses on seat work and worksheet activities.

Teacher Training, Experience, and Expectations

Teachers are often viewed as the most important contributors to students’ achievement because they have direct interaction with children themselves and a direct role in their learning process. Despite the perception that teachers exert a large influence on student learning, results from studies on the effects of teacher qualifications are mixed. Further, very little of this work has focused on the reading achievement of children within the first 2 years of formal schooling. Nevertheless, several studies have shown that low-income students are often cut off from access to highly experienced and mature teachers who may be better prepared to help them overcome academic difficulties. In fact, compared to affluent children, teachers of low-income children are likely to be novice, have little or no preparation to teach, be without an advanced degree or a full authorization to teach in their subject area, and have lower expectations of their abilities.

Also important is teacher conviction that their students can learn. Indeed, such conviction serves as a leading indicator of motivation and of a teacher’s willingness to persist to pour herself out to students who seem unresponsive, make limited progress toward academic goals, and show limited promise of meeting rigorous academic standards.

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hold higher expectations are held to stricter standards, called upon more, and more often pressed for answers. Research is needed on the links between teacher expectations and children’s learning outcomes within the first 2 years of schooling.

High Teaching Load for Inexperienced Teachers

A focus on teacher preparation and instructional processes should not be interpreted as placing responsibility for children’s inability to perform at grade level. Attention must also be given to inequities in the teaching loads in schools serving low-income compared to those serving more economically advantaged communities. Low-income children are especially likely to attend schools with other poor children, many of whom may have limited skills and be at risk for learning difficulty. It is reasonable to conclude that more time, effort, and optimism are needed to help students who lack grade-level skills. The greater the concentration of such students in the class the greater the work demand on the classroom teacher. These differences among students and in what is required to serve them must be factored into judgments about the equity of teaching workload across a range of economically diverse schools. Accordingly, teaching workload is conceptualized here in terms of class size and the proportion of students in the class who are reading below grade level. Issues of workload are associated with children’s performance. Children in classes with larger concentrations of less skilled, lower SES peers exhibit lower gains in reading during the kindergarten year and the first 2 years of school. How teaching workload may interact with child socioeconomic background to influence reading outcomes is less certain. It is arguable that the

Explaining the Effects of Teacher and Classroom Characteristics

Concerns have been raised about the quality of education received by children of families with low SES, particularly in regard to teacher quality, instructional methods, and physical and material resources. Although the impact of teacher and classroom characteristics on older children is taken for granted, their impact on children within the first 2 years of formal schooling has not been well established. Moreover, additional research is needed to single out the specific factors that play the greatest role in achievement during the earliest years of school and especially those that could make a difference for children from low-SES families. Understanding the array of classroom and teacher characteristics that contribute to early academic skills and how they may interact with family socioeconomic background can give direction to efforts to improve educational outcomes of vulnerable children. To pursue this agenda, we analyzed data from the ECLS-K to (a) attempt to replicate previously established relations among SES, academic skills, and experiences in school as indexed by teacher and classroom characteristics; and (b) analyze whether the relationship of teacher and classroom characteristics to academic skills moderated the relationship between SES and achievement. (For a detailed description of the sample, measures, and analysis, see the online Supplemental Materials.)

Key Findings

As expected, results showed that children from low socioeconomic backgrounds had significantly lower reading scores at the end of first grade than their peers, and they were significantly more likely to share classrooms with larger proportions of minority and poor students. Remarkably, there were no significant SES difference in teaching facilities, ma-

terials, or practices or in class size. The classrooms of low-SES children had significantly fewer children who were reading at or above grade level, but they tended to be in classrooms with a smaller number of students.

Further, children’s teachers did not differ in their number of reading instruction courses or number of professional development activities in which they were involved. Compared to all other SES levels, children in the lowest SES group were taught by less trained and experienced teachers who held less favorable beliefs about their students’ ability to learn. Specifically, teachers of children in the lowest SES group tended to have fewer years of experience teaching first grade, fewer years of experience teaching overall, and less education. Teachers of low-SES children were also more likely to have low expectations of students’ abilities. Results also suggested that family SES explained only a small portion of the class-to-class variability in mean reading achievement.

Higher reading scores were associated with teachers having more experience teaching first grade and more favorable expectations for students’ learning. Findings also suggested that the relationship between family SES and reading scores was not moderated by the estimated teacher characteristics.

When classroom effects were examined, higher reading scores were associated with more varied teaching practice, access to teaching materials, lower teaching load, and

fewer classmates reading below grade level. The analysis also found class size to moderate the relationship between SES and reading scores. Upon further probing, it appeared that smaller than average classrooms had slightly higher reading scores. Figure 1 presents a line graph of these results and suggests that low-SES children have lower reading scores when they are in larger than average classrooms than low-SES peers in smaller than average classrooms. Class size does not differentiate the reading scores of high-SES children.

In sum, inequalities arise principally from differential teaching loads, teacher inexperience, and teachers’ unfavorable expectations about students’ ability to learn, all of which are indisputably linked to children’s achievement.

Implications for Social Innovations

These findings have significance for creating policies that support social innovations aimed at improving educational outcomes for poor children. Indeed, a majority of children in public schools are now poor. Given highly segregated housing patterns that exist in many school districts and the flight to private schools by those with economic resources and to charter schools by more resourceful parents, the concentration of poor and minority children performing below grade level in public schools may be the reality in public schools for some time to come.

Questions for Self-Assessment

1. What are some of the causes of different school experiences for poor children?
2. What constitutes “teaching workload” and how does it affect student achievement?
3. How does the relationship of teacher and classroom characteristics to academic skills moderate the relationship between SES and achievement?
4. What are the implications of the findings for social innovations?

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Teachers’ Expectations

The findings of this study also reinforce the importance of teachers’ expectations of their students’ academic promise. It is noteworthy that teacher expectations are associated with achievement as early as first grade. A particularly important implication of this finding is that more competent children with greater potential who are in classrooms with high concentrations of poor readers may be disproportionately disadvantaged by low teacher expectations generalized to all children. Even though teachers’ beliefs about student ability are definitely related to achievement, it is im-

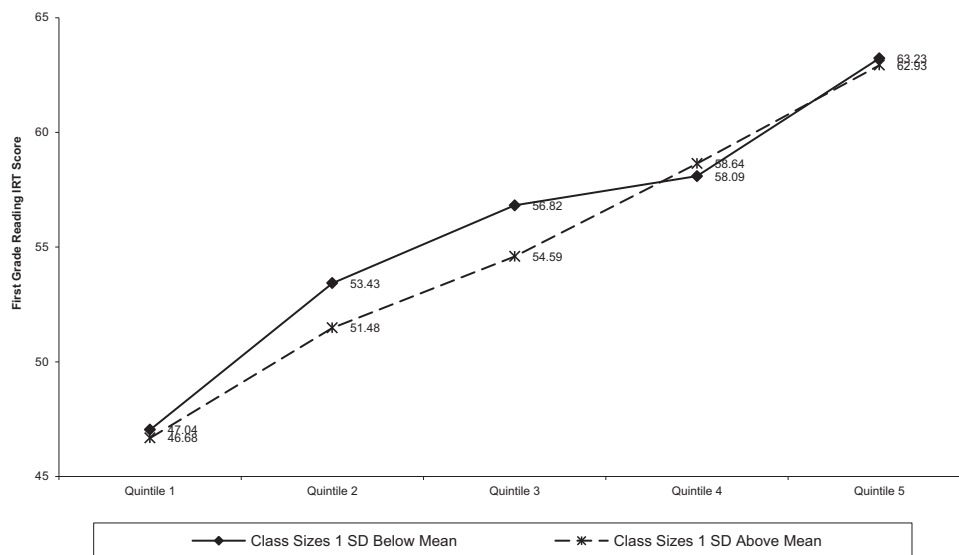


Figure 1. Reading scores by socioeconomic status quintiles for children in larger and smaller than average classrooms.

possible to discern with certainty whether causality flows from teacher beliefs to child competence or from child competence to teacher beliefs. Perhaps teachers form lower expectations as a consequence of observations of children who struggle with skill that other students master with ease. Even when teachers' views are shaped by the struggles of students with special needs, there is danger that their attitudes will be generalized and affect their assessments of all their students.

It is likely that teacher beliefs and child competence are part of a recursive and mutual feedback loop in which each influences the other. Considering that other teacher variables were unrelated to first grade reading outcomes, teacher reform efforts may be best served by attempting to affect the perceptions teachers have of children. However, while capturing social aspects of the classroom environment proves promising, these dimensions are often much more difficult to change using an educational policy lever. A more fruitful strategy may rest in the use of teacher professional learning communities that encourage teachers to reflect on their interactions with children and how their beliefs about children affect these interactions and child outcomes.

Teaching Experience and Workload

Teaching load has a different relation to achievement of low-SES children than it does for economically advantaged children. Reductions in a teacher's class size are associated with higher reading scores for the most disadvantaged children. Low-SES children in smaller classrooms have higher reading performance than low-SES children in larger than average classes. Although class size is associated with the reading scores of low-SES children, it does not appear to differentiate the scores of high-SES children. In other words, a smaller class size helps the most disadvantaged children but does not contribute to increased reading achievement for children from families with more economic resources.

These findings are consistent with the innovative work from Project Star in Tennessee, in which class size was associated with better reading achievement. Conflicting findings about class size reduction may result from what is actually taking

place within the classroom, namely changes in teachers' instructional methods and the quality of teachers in the classroom. Essentially, reductions in class size may be meaningless if teachers are not capitalizing on opportunities for individualized instruction, if children still do not have increased opportunities for learning, or if unqualified teachers are used to compensate for the need for more classroom instructors. Again, it should be emphasized that the magnitude of these effects in the current research is small. Interestingly, a number of teacher characteristics, namely teachers' educational background, the total number of years of teaching experience, and reading instruction courses were unrelated to reading achievement.

Our findings support assertions that teachers with the least training and experience often draw teaching assignments with the heaviest teaching load. Teachers without much seniority are often assigned to schools that teachers with more seniority avoid in favor of schools with lighter

teaching loads. Teachers are currently under great scrutiny and feel blamed for systemic failure to educate poor children. A high workload, a lack of support, individual blame, and a lack of control over factors that contribute to student difficulties are a recipe for teacher burnout. It is not surprising that experienced teachers are motivated to transfer to schools with fewer, more manageable demands and greater support. It is an understandable and human tendency to choose to work in an environment in which there is a match between assigned responsibilities and control over the factors which determine success.

If we are to achieve the goal of having experienced and competent teaching in schools with high concentrations of poor children, we need to address these issues. Reduction in class size is just one of many steps that can be taken. Another strategy is the development of professional learning communities in which teachers problem solve, share successful strategies, use data

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to shape pedagogy, and reflect on how their beliefs about children affect teacher-child interactions and child outcomes. Team teaching, provision of teaching assistants, flexible instructional grouping of students, and use of individual and small group instruction—including community volunteers to serve as reading buddies—are all relatively low-cost strategies to improve students' outcome, nurture teacher efficacy, and possibly lift the morale of teachers. It is important to move beyond scapegoating teachers and teacher unions to creating the sense that we are all in this

together—teachers, parents, school administrators, and communities.

Conclusion

The magnitude of the effect of SES on each of the classroom characteristics was significant. That is, the risky effects of low-SES reside not only in the home but also in the school. These findings are entirely consistent with the data previously reported by Stipek and by Lee and Burkam. They are also consistent with the experiences of poor

children described by Kozol. Schools may replicate the effects of economic disadvantage in the family. In fact, the results suggest that the schools serving low-SES communities do not blunt or make up for the risks faced at home; rather, they largely replicate these risks. The consequence is that low-SES children are more likely to be exposed to classroom and teacher characteristics that are negatively associated with reading outcomes.

Keywords: poverty; education; low SES; teaching load; teacher expectations