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Returns for Parental Efforts during the Early Elementary Years: Does the Effect of Parent Involvement Differ across Social Groups?

Purpose of the Study

One of the most important educational policy issues is to enhance the level of student achievement and to reduce the achievement gaps between social groups. While the focus of various educational reform strategies or policy initiatives may differ regarding how schools might accomplish these aims, special attention has often been paid to the roles parents may play in the process through their involvement in children's schooling. Federal or state legislation, including the No Child Left Behind Act of 2001, and California's Public School Accountability Act of 1999, has supported parent involvement by requiring schools to develop ways to engage parents in the educational process. A variety of programs and models for increasing parent involvement have been developed and implemented across the country (Comer, 1980; Comer *et al.*, 1996; Desimone *et al.*, 2000; Epstein, 1992, 2005; Moses *et al.*, 1989).

Increasing parent involvement has been particularly regarded as one of the most important ways to reduce group-based educational inequalities since a number of studies have found that low-income, minority parents are less involved in their children's education than higher income, nonminority parents (Baker & Stevenson, 1986; Milne *et al.*, 1986; Stevenson & Baker, 1987).

However, the findings from previous research indicate that students from advantaged backgrounds tend to gain more from their parents' involvement than those from disadvantaged backgrounds. For example, McNeal (1999) and Desimone (1999) have similarly found that parent involvement was generally more effective for affluent, white students than for poor, minority students in predicting student achievement and dropping out. It suggests that students from lower social class and/or minority backgrounds are not likely to be benefited from parent involvement even if their parents are actively involved in educational activities. Put differently, parent involvement is effective in enhancing achievement and keeping children in school only in combination with parents' human, financial, social, and cultural resources. If this is true, parent involvement will not work as a mechanism to reduce achievement gaps among students from different social backgrounds.

The question is how and why this happens. How and why are students from disadvantaged backgrounds less likely to be benefited from their parents' involvement? Why do students from disadvantaged backgrounds enjoy fewer premiums from parent involvement? Is it because the qualitative nature of involvement is different between groups? Is it because the members of the educational institutions simply react more negatively or defensively with the individuals from disadvantaged backgrounds? Or, is it because the measures used in these studies are less applicable to certain groups of people?

One possibility is that certain forms of parent involvement, such as "reading to child" and "helping with homework," may mean qualitatively different practices between parents from different social backgrounds. If this is the case, the effectiveness of parent involvement may depend on their children's age. As children grow older, it will be likely to become increasingly difficult for less-educated, lower-class, or immigrant parents to be a productive contributor to their children's education because limited linguistic capital, knowledge and economic resources will likely work against them in helping their children to succeed in school (Diamond, 2000). If

it is possible to compare group-based differences in the effectiveness of parent involvement among kindergarten, elementary and secondary school, it may provide a better understanding of the mechanism that cause different returns for involvement between groups. However, previous research on this area has almost exclusively focused on secondary school students. Few studies of this sort have been conducted in the level of kindergarten or elementary school.

This study focuses on early elementary school students and examines whether the effects of various types of parent involvement differ by parents' socioeconomic status and racial/ethnic backgrounds. Specifically, the following research questions are addressed in this study: (1) Are parents from advantaged backgrounds more involved in children's education than those from disadvantaged backgrounds? (2) how do the different types of parent involvement affect 3rd graders' math and reading achievement after controlling for 1st grade achievement scores, other student- and school-level characteristics?; (3) does the relationship between parent involvement and student achievement differ by parents' socioeconomic status and/or racial/ethnic backgrounds after controlling for other student- and school-level variables? By investigating these issues, this study will provide important implications for school policy and practices regarding parent involvement.

Method

Data

The proposed study uses the Early Educational Longitudinal Study: Kindergarten class of 1998-99 (ECLS-K). The ECLS-K is a longitudinal survey focusing on children's early school experiences beginning with kindergarten and following through the eighth grade. Using a multistage probability sample design, a total of 21,260 children were recruited from 866 schools throughout the country. Six waves of data have been collected up to now, in the fall and spring of kindergarten (1998-99), the fall and spring of the first grade (1999-2000), the spring of the third grade (2002) and the spring of the fifth grade (2004). The ECLS-K longitudinal kindergarten through third grade data file has been selected to explore children's academic achievement between the third grade and the first grade. By applying the appropriate longitudinal sampling weight (C45CW0), the analytic sample is restricted to children with assessment data across two rounds of data collection. Since some school-level characteristics will be controlled in this study, the sample is also limited to individuals who remained enrolled within the same school from the spring of 1st grade through the spring of 3rd grade. Children who had missing data on the key variables are eliminated. Schools with less than 2 students are excluded as well. As a result, data for this study are composed of 10,501 students nested in 871 schools.

Measures

Dependent variables: This study uses the IRT scale scores to model children's academic achievement in reading and math between 1st grade and 3rd grade. IRT has been selected because of its comparability across children and across waves. 3rd-grade IRT scale scores are used as dependent variables and 1st-grade scores are used as control variables.

Independent variables: The focus of this study is parent involvement, which is known to be a complex, multi-dimensional construct (Grolnick & Slowiaczek, 1994). Parent involvement can be broadly categorized as home-based involvement and school-based involvement. For

home-based involvement, I created two variables: helping a child to learn things and exposing a child to intellectually stimulating activities. These two variables are composite measures which are developed using multiple items. Helping a child to learn things means the extent to which parents help a child to learn things by telling a child stories, talking about nature or doing projects with a child, reading/writing/working with numbers for a child, and reading books to a child. Exposing a child to intellectually stimulating activities is created by combining items including whether or not a child participated in dance lessons, athletic events, organized clubs, and organized performing, whether or not a child took music or art lessons, and whether or not parents visited a library with a child. For school-based involvement, I included three variables: participating in PTO, participating in school events such as a play, sports events, or science fair, and working as a school volunteer.

The individual-level factors known as affecting elementary school children's learning are selected as covariates. Previous literature on early schooling outcomes indicate that a child's demographic characteristics such as race and gender, and family status indicators such as parent education, family income, and family structure are all associated with children's academic performance (Entwisle & Alexander, 1995; Entwisle *et al.*, 1997; Epstein, 1991; Lee & Burkam, 2002). Thus, this study will include a child's race, gender, family SES, and family structure as the individual-level covariates.

Analytical Methods

First of all, descriptive analysis is conducted to examine the differences in parent involvement by the levels of parent socioeconomic status and racial/ethnic backgrounds. And then, two different sets of regression models will be estimated with or without interaction terms between SES and race/ethnicity and types of parent involvement.

Results and Discussion

First, descriptive statistics show systematic differences in all types of parent involvement variables by the levels of family socioeconomic status. When I used five categories of family SES, parents from a lower SES family were less involved in all five types of parent involvement than those from a higher SES family. Those differences were statistically significant. The results also indicate that White parents are more involved in most types of parent involvement than minority parents.

Secondly, children's math achievement was positively influenced by parents' participation in volunteering and their efforts to expose their children to intellectually stimulating activities. However, helping a child to learn things was negatively associated with 3rd graders' math achievement. This result may be due to the fact that parents tend to provide more help to children with learning problems. Parent participation in PTO was not significantly related to children's math achievement. In addition, the results indicate that boys do better in math than girls and that Whites have higher math scores than Blacks and Hispanics, but lower scores than Asians. Family SES positively affected student math achievement, but family structure was not significantly related to 3rd graders' math achievement. These associations remain same after interactions terms between family SES and types of parent involvement are included in the model. The findings from the reading models are similar to those from the math models.

Specifically, children's reading achievement was positively associated with parent participation in volunteering and school events, and efforts to expose a child to intellectually stimulating activities. It was negatively affected by parent activities to help a child to learn things, and it was not significantly affected by parent participation in PTA. Contrary to math results, females and whites do better in readings than males and students of other races.

Thirdly, the results of interaction models show that none of interaction terms between SES and parent involvement measures are significantly associated with student math achievement. The findings indicate that the effects of parent involvement on math achievement do not differ by parents' socioeconomic status. However, some of the racial interaction terms were found to be significant. While the increased level of parent cultural help improved math achievement among whites, it was associated with slightly decreased level of math achievement among blacks.

Compared to the interactions with parent socioeconomic status, the interactions between racial/ethnic backgrounds and parent involvement measures were found to be stronger and more salient. Specifically, increased level of educational help was associated with better reading achievement for the higher SES groups, but it was associated with lower achievement for the lower SES groups. This might be due to the fact that lower SES parents intervene in their child's education only when a child has serious academic problems. The interaction between SES and cultural help was also significant, which indicates that the positive relationship between cultural help and reading achievement was of greater magnitude for lower SES students than for higher SES students. This result does not support the notion of cultural capital, suggesting that encouraging parents to expose a child to diverse cultural activities may successfully remedy problems of class disparities in student reading outcomes.

However, the results of the interactions between race/ethnicity and cultural help suggest that parental cultural help may not work as a means of equalizing racial disparities in educational outcomes. Increasing the level of cultural help was significantly more beneficial to white students for their reading achievement than to Hispanics. Even more, the effects of cultural help were negative among Black students. These results support for cultural reproduction, implying that blacks and Hispanics are not rewarded from their cultural activities as much as their counterparts from white backgrounds.

The findings obtained from this study show that the pattern of differential returns for parent efforts varies across academic subjects and involvement types. They also show that the effects of parent involvement vary more across different races than across different socioeconomic groups. The relationship between types of parent involvement and student math achievement does not differ by parents' socioeconomic status. While studies focusing on secondary school students show that students from lower social class backgrounds are less benefited from parent involvement than those from higher social class families, this study shows that certain types of parent involvement are efficacious in enhancing student achievement irrespective of parent social status. Supporting the hypothesis that the effectiveness of parent involvement may depend on their children's age, the results of this study suggest that involving parents in school as volunteers and increasing parent efforts to expose their children to intellectually stimulating activities may work regardless of parent socioeconomic status at least for early elementary school students. Thus, elementary schools' efforts to increase parent involvement may contribute to reducing achievement gaps between students from lower SES families and those from higher SES families. However, we need to take more careful approach to using parent involvement as a means of equalizing racial disparities in educational outcomes.

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