

Explorations in Parent-School Relations

KATHLEEN V. HOOVER-DEMPSEY

OTTO C. BASSLER

JANE S. BRISSIE

Peabody College of Vanderbilt University

ABSTRACT Grounded in Bandura's (1976, 1986) work, parent efficacy was defined as a parent's belief that he or she is capable of exerting a positive influence on children's school outcomes. Parents' sense of efficacy and its relationship to parent involvement were examined in this study. Parents ($n = 390$) of children in kindergarten through fourth grade in a metropolitan public school district responded to questionnaires assessing parent efficacy and parent involvement in five types of activities: help with homework, educational activities, classroom volunteering, conference participation, and telephone calls with teachers. Teachers ($n = 50$) from the same schools also participated, responding to questionnaires assessing teacher efficacy, perceptions of parent efficacy, and estimates of parent involvement. Findings revealed small but significant relationships between self-reported parent efficacy and three of the five indicators of parent involvement. Results for teachers revealed significant relationships among teacher efficacy, teacher perceptions of parent efficacy, and teacher reports of parent involvement in four areas. Results are discussed in relation to the patterns of involvement activities reported by parents and implications for research and intervention in parent-school relationships.

Bandura's (1977, 1984, 1986) work on personal efficacy considers the influence of beliefs that one is capable of achieving specific outcomes on behavior choices. In general, his work suggests that persons higher in efficacy will be more likely to engage in behaviors leading to a goal and will be more persistent in the face of obstacles than will persons with a lower sense of efficacy.

Hoover-Dempsey, Bassler, and Brissie (1987) earlier examined relationships between teacher efficacy and parent involvement. Building on Bandura's work and studies of the role of teacher efficacy in various educational outcomes (Ashton, Webb, & Doda, 1983; Dembo & Gibson, 1985), the authors defined teacher efficacy as "teachers' certainty that their instructional skills are effective" (p. 425). Hoover-Dempsey, Bassler, and Brissie found that teacher efficacy was significantly related to teacher reports of parents' involvement in conferences, volunteering, and home tutoring, as well as teacher perceptions of parent support.

Examination of specific parent variables often related to children's school performance suggests a complementary avenue of exploration in efforts to understand and improve parent-school relations. Some evidence that *parent* efficacy beliefs may be important in parent behaviors and child outcomes are reported in Baumrind's (1971, 1973) work on parenting styles, which established clear linkages between patterns of parenting behaviors and patterns of children's social and cognitive development. For example, the characteristics of Baumrind's authoritative style include consistent parental willingness to give reasons and explanations for requests and to consider and discuss alternative points of view. Because children of authoritative parents have consistent access to their parents' thinking—and because authoritative parents listen and take into account their children's reasoning—the children tend to develop higher levels of social and cognitive competence than do peers raised in other parenting styles.

Dornbusch, Ritter, Leiderman, Roberts, and Fraleigh (1987) recently demonstrated another specific outcome of an authoritative parenting style; they found that adolescents raised by authoritative parents, when compared with adolescents raised by authoritarian parents, have higher levels of academic performance in high school. In a related line of inquiry, Mondell and Tyler (1981) reported significant positive relationships between elements of parental competence and characteristics of parents' teaching interactions with their children, for example, more competent parents treat the child as an "origin," offer more approval and acceptance, and offer more helpful problem-solving questions and strategies.

In each set of findings, the qualities of parental behavior suggest the presence of strong parental beliefs in the abilities and "worthiness" of the child, for example, giving children reasons for requests and treating them as capable of solving problems. These behaviors suggest that parents believe in the abilities of the child and have

Address correspondence to Kathleen V. Hoover-Dempsey, Department of Psychology and Human Development, Box 512, Peabody College, Vanderbilt University, Nashville, TN 37203.

confidence in their own ability to guide the child's learning. Such attitudes and the behaviors that they enable are central to a parental sense of efficacy—parents' belief and knowledge that they can teach their children (content, processes, attitudes, and values) and that their children can learn what they teach.

Applied in this manner, Bandura's (1977, 1984, 1986) theory suggests that parents will hold personal efficacy beliefs about their ability to help their children learn. These efficacy beliefs will influence their decisions about the avenues and timing of efforts to become involved in their children's education. For example, parents with a strong sense of efficacy are more likely than low-efficacy parents are to help their children resolve a misunderstanding with the teacher, because they believe that they are capable of offering, and helping their child to act on, appropriate guidance. Overall, parents most likely become involved when they believe that their involvement will "make a difference" for their children.

Following Bandura's (1986) suggestion that assessments of perceived self-efficacy are appropriately "tailored to the domains of functioning being analyzed" (p. 360), the present study was designed to explore parent efficacy and the nature of its relationship to specific indicators of parents' involvement in their elementary school children's education. Although parent efficacy is likely only one of several contributors to parents' involvement decisions (Bandura 1986), we believe that it may operate as a fundamentally important mechanism, explaining variations in involvement decisions more fully than do some of the more frequently referenced status variables (e.g., parent income, education, employment). We believe that self-efficacy is more significant than such status variables because self-efficacy beliefs, far more than variables describing an individual's status, "function as an important set of proximal determinants of human motivation, affect, and action" (Bandura, 1989, p. 1175). Support for this position comes from related bodies of work, for example, Greenberger and Goldberg's (1989) findings that adults' commitment to parenting is "more consequential" for other parenting practices than is their involvement in work (30).

We also explored the replicability of previous results indicating a significant positive relationship between teachers' sense of efficacy and parent involvement. That relationship is grounded in the logical probability that teachers with a higher sense of personal teaching efficacy, being more confident of their teaching skills, are more likely to invite parent involvement and to accept parents' initiation of involvement activities (Hoover-Dempsey et al., 1987). Finally, we explored teachers' perceptions of parents' efficacy and involvement, based, in part, on earlier findings of a significant relationship between an "other's" perceptions of teacher efficacy and selected teacher outcomes (Brissie, Hoover-Dempsey, & Bassler, 1988). In general, we expected that higher levels of parent

involvement would be associated with higher levels of parent efficacy, teacher efficacy, and teacher perceptions of parent efficacy. We expected to find those relationships because higher efficacy parents and teachers, being more confident of their skills and abilities related to children's learning, would more likely initiate and invite parent involvement in children's school-related learning activities.

Sample, Methods, and Procedures

Four elementary schools in a large public school district participated in the study. The schools varied in geographic location within the district, size (300 to 500 students), and mean annual family income reported by parents (\$15,000 to \$37,000). Because the purpose of the study was to examine a group of parents across varied school settings, data are not reported for individual schools.

We contacted principals from each school and obtained permission to solicit parent and teacher participation. Letters describing the study were put in teacher mailboxes at each school. Teachers choosing to participate were asked to complete a questionnaire that contained all teacher data needed for the study and to leave it in a sealed envelope in a collection box in the school office. All the teachers at each school, whether they choose to participate in the study or not, were asked to send parent letters and questionnaire packets home with students in their classes. The letter explained the study, solicited voluntary participation, and asked parents to complete an accompanying questionnaire and return it to school in a sealed envelope. We collected the sealed return envelopes from parents and teachers at the schools.

Parent Sample

Three hundred ninety parents participated in the study. The number represented approximately 30% of the children served by the four schools. Individual school response rates ranged from 24% to 36%. Given the relatively low response rate, the results must be interpreted with caution. It seemed probable that bias in the sample favored participation by parents who had stronger opinions about the issues involved. As a check on that possibility, we reviewed parents' comments at the end of the questionnaire (in a "comments" space used by approximately half of the participants). The comments revealed a wide range of positive and negative statements, indicating a varied set of parent experiences and attitudes (e.g., "I would appreciate more news on what the children are doing and why from teachers to parents, plus how to assist with that at home." "Conference times are inaccessible to people who work. Teachers do not like phone calls from parents in their off time and I understand this. You never hear from the schoolteacher unless they have a complaint or want something." "Our son's teacher this

year and last has been a very positive influence on him. We're grateful for her caring the way she does." "She never has homework. What is this teacher's problem? Is she too lazy to grade extra papers? My child is making Cs and Ds. Please help."). Although the respondents may have had a higher-than-average level of interest in parent involvement issues, the variety of experiences reflected in their comments suggested that their reports would be useful in understanding many parents' patterns of school-related involvement.

In general, the respondents appeared to be an average group of elementary school parents (Table 1). Most of the respondents were mothers, most were married, and most were employed outside of the home. Education and income levels spanned a wide range. A comparison of that group with national data suggests that those parents were typical of many public school districts' parent population (e.g., compare Table 1 figures with national percentages for marital status in 1987—63% married, 36% not married—and for education—among the 25- to 34-year-old age group in 1984, 34% had a high school education and 16% had a college degree; U.S. Bureau of the Census, 1989).

Table 1.—Parent Characteristics

Elementary school parents	<i>n</i>	% of sample
Sex		
Female	326	84
Male	54	14
No response	8	2
Education		
Grade school	27	7
High school	131	34
Some college	125	32
BA/BS degree	50	13
Some graduate work	22	6
Graduate degree (MA/MS, PhD/MD)	24	7
No response	9	2
Marital status		
Married	259	67
Not married (includes single, separated, divorced, widowed)	124	32
No response	5	1
Employment status		
Employed out of the home	253	65
Not employed out of the home	118	30
No response	17	4
Family income		
≤ \$5,000	25	6
\$5,001–\$10,000	42	11
\$10,001–\$20,000	78	20
\$20,001–\$30,000	76	20
\$30,001–\$40,000	75	20
\$40,001–\$50,000	36	9
\$50,001 +	23	6
No response	10	8
Age of respondent	<i>M</i> = 33.37	<i>SD</i> = 6.61

Teacher Sample

Fifty teachers in the four schools (63% of the total possible) participated in the study and returned usable questionnaires. All the teachers were women, and their class enrollments averaged 21.06 (*SD* = 5.20). They had been teaching for an average of 15.76 years (*SD* = 7.57) and had been in their present schools for approximately 6.5 years (*SD* = 5.73). Their average age was 41.21 years (*SD* = 8.73). The majority of the teachers held a master's degree, and many had credits beyond the MA/MS degrees.

Measures

All data on the parents and teachers were derived from questionnaires returned by the respondents. The questionnaire for each set of respondents contained demographic items, a set of requests for estimates of participation in specific parent involvement activities, and a series of items designed to assess respondents' perceptions of parent or teacher efficacy.

Parent Questionnaire. The Parent Questionnaire asked participants to give specific information about themselves (employment status, education, family income, marital status, age, and sex) and estimates of their levels of involvement in various forms of parent-school activities—help with homework (hours in average week); other educational activities with children (hours in average week); volunteer work at school (hours in average week); telephone calls with teachers (number in average month); and parent-teacher conferences (average number in semester). Similar estimation procedures have been used successfully in other investigations (Grolnick & Ryan, 1989; Hoover-Dempsey, et al., 1987; Stevenson & Baker, 1987).

The Parent Questionnaire contained Likert-scale response items designed to assess parents' perceptions of their own efficacy. We developed the 12-item Parent Perceptions of Parent Efficacy Scale on the basis of the teaching efficacy and parenting literature cited earlier. Although efforts to develop an assessment of general parenting efficacy have been reported (Johnston & Mash, 1989), the teaching efficacy literature was used as the basis for this measure because interest in this study focused on parents' perceptions of personal efficacy specifically in relation to children's school learning. The scale included such items as "I know how to help my child do well in school" and "If I try hard, I can get through to my child even when he/she has trouble understanding something." Following the model set by previously reported scales of teacher efficacy, items in this scale focused on assessment of parents' general abilities to influence children's school outcomes and specific effectiveness in influencing children's school learning. Items were scored on a 5-point scale ranging from *strongly disagree* (1) to *strongly agree* (5). Negatively worded items were subsequently rescored so that higher scores uniformly reflected higher efficacy.

Possible total scores for the scale ranged from 12 to 60. Similarity to selected items of the Teacher Perceptions of Efficacy Scale (see below) and its grounding in related literature support the validity of this scale. Alpha reliability for this sample, .81, was judged satisfactory.

Teacher Questionnaire. The Teacher Questionnaire asked for specific information about teachers and their classes (grade, enrollment, percentage of students qualifying for free lunch, total years taught, years at present school, highest degree earned, sex, and age). Teachers were also asked to estimate the number of students in their classes whose parents participated in scheduled conferences, volunteer work at school, regular assistance with homework, regular involvement in other educational activities with children (e.g., reading and playing games), and telephone calls with the teacher. Again, such procedures have been used successfully in other investigations (Hoover-Dempsey et al., 1987; Stevenson & Baker, 1987).

We developed a seven-item Teacher Perceptions of Parent Efficacy Scale on the basis of the literature cited earlier. Items included such statements as "My students' parents help their children learn," and "My students' parents have little influence on their children's academic performance." All the items were scored on a scale ranging from *strongly disagree* (1) to *strongly agree* (5); negatively worded items were rescored so that higher scores consistently reflected more positive teacher perceptions of parent efficacy. Possible scores for the scale ranged from 7 to 35. Similarity to selected items of the Parent Perceptions of Parent Efficacy Scale and its grounding in the literature reviewed earlier support the validity of this scale. Alpha reliability of .79 for this sample was adequate.

Items on the 12-item Teacher Perceptions of Teacher Efficacy Scale (Hoover-Dempsey et al., 1987) included such statements as "I am successful with the students in my class" and "I feel that I am making a significant educational difference in the lives of my students." Items were scored on a scale ranging from *strongly disagree* (1) to *strongly agree* (5); negatively worded items were subsequently rescored so that higher scores uniformly reflected higher efficacy. Total scale scores ranged from 12 to 60. The scale's grounding in related literature, and its earlier successful use after substantial pretesting for clarity and content, support the validity of the scale. An alpha reliability of .83 for the scale with this sample was judged satisfactory.

Results

Correlations between parent efficacy and three indicators of parent involvement were statistically significant. Higher levels of parent efficacy were associated with more hours of classroom volunteering, more hours spent in educational activities with children, and fewer telephone calls with the teacher (see Table 2).

Parent efficacy scores did not reveal significant variations related to parents' sex, marital status, employment status, or family income. Parent education, however, was linked to some variations in efficacy scores, $F(5, 353) = 4.59, p < .01$. Parents with a grade school education had significantly lower efficacy scores than did parents with all levels of college education, and parents with a high school education were significantly lower than parents with some college work beyond the bachelor's degree.

Table 2.—Means, Standard Deviations, and Intercorrelations: Parent Involvement Variables and Parent Efficacy ($N = 354$)

	Homework	Educational activities	Volunteering	Telephone calls	Conferences	Parent efficacy
Homework (hours per week)	—					
Educational activities (hours per week)	.38**	—				
Volunteering (hours per week)	.07	.14**	—			
Telephone calls (number per month)	.09	.02	.02	—		
Conferences (number per semester)	.10*	.08	.08	.34**	—	
Parent efficacy	.06	.11*	.15**	-.14**	.02	—
<i>M</i>	4.54	4.84	.66	.49	1.45	45.71
<i>SD</i>	3.58	3.58	.21	1.06	1.99	5.82

* $p < .05$ (.11). ** $p < .01$ (.14).

Parent reports of involvement were linked to some parent status characteristics. More hours of classroom volunteering were reported by females (0.74 hours per week v. 0.25 for males, $F[1, 352] = 8.53, p < .01$), married parents (0.81 hours per week v. 0.32 for not married, $F[1, 352] = 7.90, p < .01$), and unemployed parents (1.27 hours per week v. 0.34 for employed, $F[1, 352] = 8.82, p < .01$). More hours of homework help were reported by parents with lower education (high school at 4.80 hours per week v. college degree at 3.33, $F[5, 348] = 3.18, p < .01$), lower family income (3 lower income groups = 6.52 – 5.33 hours per week v. 3 higher income groups = 3.62 – 3.09, $F[6, 326] = 7.97, p < .01$), and single parent status (not married = 5.51 hours per week v. married = 4.05, $F[1, 352] = 13.83, p < .01$). More phone calls were reported by the lowest income parents (lowest income group = 1.38 calls per month v. 0.58 – 0.20 for all other income groups, $F[6, 326] = 3.90, p < .01$).

Teacher efficacy and teacher perceptions of parents' efficacy were both positively linked to teacher reports of parent involvement in homework, educational activities, volunteering, and conference participation (see Table 3). Teacher efficacy was also positively linked to teacher perceptions of parent efficacy. Although teacher efficacy did not show a significant relationship with the number of students qualifying for free lunch ($r = -.16, ns$), teacher perceptions of parent efficacy were significantly linked to the free lunch figure ($r = -.59, p < .01$).

Discussion

The finding that parent efficacy is related, at modest but significant levels, to volunteering, educational activities, and telephone calls suggests that the construct may contribute to an understanding of variables that influence parents' involvement in decisions and choices. Defined as a set of beliefs that one is capable of achieving desired outcomes through one's efforts and the effects of those efforts on others, parent efficacy appears to facilitate increased levels of parent activity in some areas of parent involvement. The correlational nature of our results suggests that just as efficacy may influence involvement choices, these varied forms of involvement may influence parents' sense of efficacy (e.g., parents may feel increased effectiveness when they observe, during their involvement activities, that their children are successful). Regardless of the direction of influence, however, the observed linkages seem logically based in dynamic aspects of the relationship between many parents and teachers.

Classroom volunteering, for example, may be linked to efficacy, because the decision to volunteer requires some sense that one has educationally relevant skills that can and will be used effectively. Similarly, the experiences implicit in classroom volunteering may offer parents new and positive information about their effectiveness with their own child. The decision to engage in educational ac-

tivities with one's children at home may reflect a sense of personal efficacy ("I will do this because it will help my child learn."); in like manner, the activities undertaken may show up, from the parent's perspective, in improved school performance that, in turn, may enhance parent efficacy. The negative relationship between efficacy and telephone calls probably reflects the still-prevalent reality that calls to and from the school signal child difficulties. Lower efficacy parents, less certain of their ability to exert positive influence on their children's learning, may seek contact more often. Similarly, more school-initiated calls may signal to the parent that he or she is offering the child less-than-adequate help.

Overall, our findings suggest that the construct of parent efficacy warrants further investigation. Grounded in the teaching efficacy literature and theoretical work on personal efficacy, the Parent Perceptions of Parent Efficacy Scale achieved satisfactory reliability with this sample and emerged, as predicted, with modest but significant relationships with some indicators of parent involvement. Parents' average efficacy score, 45.71 ($SD = 5.82$) in a scale range of 12 to 60, indicated that those parents as a group had relatively positive perceptions of their own efficacy. The variations in efficacy by parental status characteristics suggested that, at least in this group, sex, marital status, employment status, and family income were *not* related to efficacy. The finding that parental education was significantly linked to efficacy is not surprising, given the probability that parents' own school experiences contribute to their sense of school-focused efficacy in relation to their children.

Parent efficacy may differ from parent education in the way it operates, however. Whereas higher levels of education may give parents a higher level of skill and knowledge, efficacy—a set of attitudes about one's ability to get necessary resources and offer effective help—increases the likelihood that a parent will *act* on his or her knowledge (or seek more information when available resources are insufficient). The explanatory function of efficacy is suggested by the finding that parent education was related to fewer and different outcomes than parent efficacy was. Parent efficacy was related to educational activities, volunteering and telephone calls, whereas education was significantly linked to homework alone. In that finding, parents with a high school education reported spending more time helping their children with homework than did parents with a college education. The fact that a group with lower education reported *more* homework help may reflect several different possibilities: the lower efficacy parents may be more determined to see their children succeed; they may use a set of less efficient helping strategies; or they may be responding to a pattern of greater school difficulty experienced by their children.

Although our data do not permit an assessment of those possibilities, we suspect that the finding reflects less adequate knowledge of effective helping strategies. Be-

Table 3.—Means, Standard Deviations, and Intercorrelations Among Teacher Variables

	Homework	Educational activities	Volunteering	Telephone calls	Conferences	Free Lunch	Teacher efficacy	Perceptions of parent efficacy
Parents help with homework (number of students)	—							
Parents engage in educational activities with children (number of students)	.69**	—						
Parents do volunteer work at school (number of students)	.58**	.67**	—					
Telephone calls with parents (average number per month)	.25	.30	.12	—				
Parents attend scheduled conferences (number of students)	.62**	.52**	.49**	.10	—			
Number of students qualifying for free lunch	-.34*	-.48**	-.45**	-.25	-.38**	—		
Teacher efficacy	.42**	.39**	.54**	.17	.41**	-.16	—	
Perceptions of parent efficacy	.56**	.75**	.65**	.27	.59**	.44**	-.59**	—
<i>M</i>	8.72	8.06	2.96	4.74	9.98	9.94	43.28	24.09
<i>SD</i>	4.59	4.58	2.48	5.03	5.83	8.39	6.38	4.57

* $p < .05$ (.30). ** $p < .01$ (.38).

cause many of our low-education parents were also unemployed, the finding may also reflect that they simply had more time for their children's homework activities than did the other parent groups. Whatever the explanations, the finding that education was related to fewer and different outcomes than efficacy suggests that the construct of parent efficacy warrants further investigation, perhaps particularly as it is distinguished from parent education.

Results for teachers support earlier findings (Hoover-Dempsey et al., 1987) of significant positive relationships between teacher efficacy and teacher reports of parent involvement. The general pattern—higher efficacy teachers reported high levels of parent participation in help with homework, educational activities, volunteering, and conferences—suggests that higher efficacy teachers may invite and receive more parent involvement or, conversely, that teachers who perceive and report higher levels of parent involvement develop higher judgments of personal teaching efficacy. It is also possible that both perceptions are operating. The absence of a significant positive relationship between teacher efficacy and the number of students in a school using the free lunch program also supports previous findings, suggesting again that teachers' personal efficacy judgments are to some extent independent of school socioeconomic status (SES). We suspect that the absence of a significant relationship reflects the probability that teacher judgments of personal ability to "make a difference" are related more powerfully to variables other than the status characteristics of their stu-

dents—for example, teaching skills, organizational support, and relations with colleagues (Brissie et al., 1988).

The strong positive linkages between teacher judgments of parents' efficacy and teacher reports of parent involvement likely point to the important role that parents' involvement efforts (and perhaps the visibility of those efforts) play in teachers' judgments of parents' effectiveness. In contrast to the absence of a significant relationship between teacher efficacy and school SES, teachers' judgments of *parent* efficacy were strongly and positively linked to school SES. Thus, although teachers appeared to distinguish between their own efficacy and the socioeconomic circumstances of the families that they serve, they did not appear to draw such boundaries between parents' SES and their judgments of parents' efficacy.

The further linkage between teacher efficacy and teacher judgments of parent efficacy suggests both that teachers with higher efficacy were likely to judge parents as more efficacious and that teachers who see their students' parents as more effective experience higher levels of efficacy themselves. We suspect that this relationship is an interactive one in reality, because, for example, high efficacy in each party would tend to allow each to act with more confidence and less defensiveness in the many forms of interaction that parents and teachers often routinely undertake.

The relationships between parent efficacy and some parent involvement outcomes, as well as those between teacher perceptions of parent efficacy and teacher effi-

cacy, suggest the potential importance of intervention strategies designed to increase parents' sense of efficacy and involvement. Bandura's (1977, 1984, 1986) work offers specific points of entry into the development of such interventions. For example, parents' *outcome expectancies*—their general beliefs that engaging in certain involvement behaviors will usually yield certain outcomes—should be examined in relation to parents' *personal efficacy* expectancies (beliefs that one's *own* involvement behaviors will yield desired outcomes). Future investigations might focus on parents' expectations about the outcomes of involvement, for example, do most parents really believe that their involvement is directly linked to child outcomes? If they believe so, what makes parents think that their *own* involvement choices are—or are not—important?

The findings reported here suggest the possibility that high-efficacy parents are more likely than those with low efficacy to believe that their efforts pay off. Therefore, the schools' best interests may be served by designing parent involvement approaches that focus specifically on increasing parents' sense of positive influence in their children's school success. This could be accomplished in a number of ways. For example, schools might regularly send home relatively specific instructions for parents about strategies for helping children with specific types of homework assignments. Schools might issue specific invitations related to volunteering for specific assignments (e.g., making posters, doing classroom aide work) and follow up with brief notes of thanks for a valued job well done. Teachers might routinely link some student accomplishments and positive characteristics to parent efforts as they conduct scheduled conference discussions. Many schools already engage in such practices, but the frequency and focus of such efforts might be increased in other schools as one means of communicating a basic efficacy-linked message to parents: "We think you're doing a good job of _____, and this is helping your child learn."

Similarly, the role and functions of teacher efficacy in the parent involvement process should be explored further. Is it the case, for instance, that higher efficacy teachers—more secure in and confident of their own roles in children's learning—invite (explicitly and implicitly) more frequent and significant parent involvement? Do more efficacious teachers, aware of children's specific learning needs, offer more specific suggestions or tasks for parent-child interaction? It may be true that teachers in schools with stronger parent involvement programs tend to receive more (and more positive) feedback on the value and impact of their teaching efforts. Also, teachers with varying levels of teaching efficacy perceive parent involvement and comments from parents differently (e.g., high-efficacy teachers may hear legitimate questions in a parent comment, whereas low-efficacy teachers hear criticism and threat).

The role and function of teachers' perceptions of parent efficacy also appear to warrant further examination. Teachers in this sample appeared able to give reliable estimates of their assessments of parents' efficacy. Of future interest would be an examination of the bases on which teachers make such evaluations and the role of those evaluations in teacher interactions with parents. Lightfoot (1978) suggested that parents and teachers participate in children's schooling with different interests and roles; the roles often engender conflict, but they may also be construed as complementary. Implicit in these relationships, whatever their form, is the assumption that parents and teachers watch and evaluate the actions of the other, equally essential, players in the child's school success. Closer examination of teachers' and parents' perceptions of their own roles and the "others'" roles in children's learning may yield information about an important source of influence on parent involvement and its outcomes.

The many calls over recent decades for increased parent involvement in children's education (Hess & Holloway, 1984; Hobbs, Doekci, Hoover-Dempsey, Moroney, Shayne, & Weeks, 1984; Phi Delta Kappa, 1980) appear to have produced public and professional belief that parent involvement is one means of increasing positive educational outcomes for children. As yet, however, there has been little specific examination of the ways in which parent involvement—in general or in its varied forms—functions to produce those outcomes. With few exceptions (Epstein, 1986), little information on patterns of specific forms of parent involvement is available, underscoring the relatively unexamined nature of the causes, manifestations, and outcomes of parent involvement. The findings of this study suggest that further examination of parents' and teachers' sense of efficacy in relation to children's educational outcomes may yield useful information as both sets of participants work to increase the probabilities of children's school success.

NOTES

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Errata: The following figure from "A Structural Model of High School Mathematics Outcomes" (Reynolds and Walberg, Vol. 85, No. 3) is reprinted because it was inadvertently published in an incomplete form. Also, two references from the same article have been updated below.

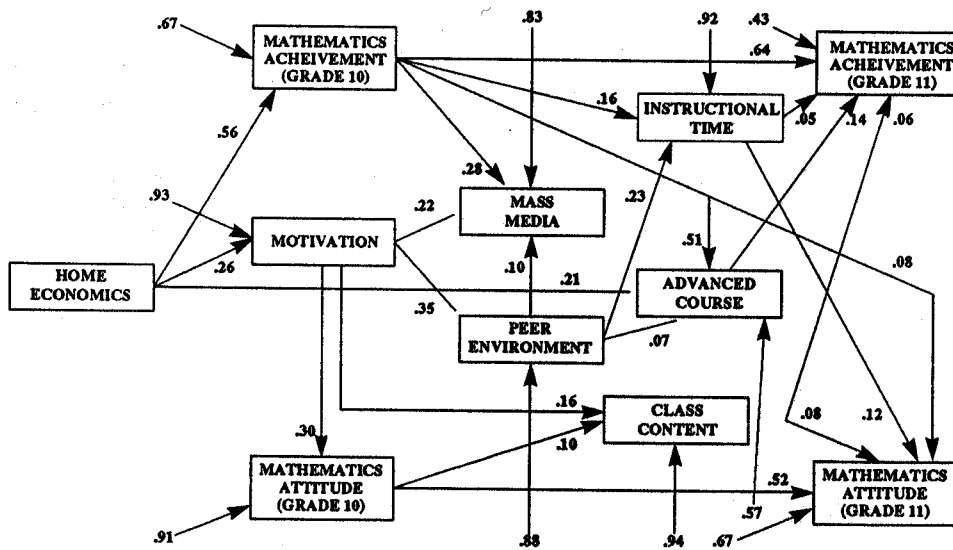


Figure 2. Significant ($t > 2.0$) Standardized Effects of Revised Model

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