Parental Involvement in Primary Children's Homework in Hong Kong

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Abstract

This study draws upon an ecological perspective to examine parental involvement in homework and its relationship with primary school children's educational outcomes within the Chinese sociocultural context of Hong Kong. Data were collected using homework diaries and questionnaires administered to 1,309 pairs of students and parents spanning all six primary grade levels in 36 primary schools in Hong Kong. Results show that primary children across grade levels devote a substantial amount of time each day after school to homework assignments and revision, while parents' involvement in the homework process varies. Such variation in parental involvement is found to relate to the child's grade level as well as the parent's educational attainment. Gain in children's academic efficacy with higher parental involvement level is observed among junior primary students as well as those with parents of lower educational attainment. Implications for the school's role in involving parents in the homework process are discussed.

Key Words: parental involvement, homework, primary school, Hong Kong, survey research, academic achievement, elementary students, Chinese families

Introduction

Homework is a significant part of students' learning experience across educational systems around the world. It involves tasks assigned to students by

school teachers that are intended to be carried out outside the school (Cooper, 2001), including written and non-written assignments, as well as preparation for tests and examinations. Potential academic benefits are expected from doing homework: retention and understanding of materials, and improving study skills and attitudes towards school. As homework assignments are completed at home, these learning tasks offer opportunities for involving parents in the learning process and enhancing their appreciation of education (Cooper & Valentine, 2001). In such regard, homework brings forth the potential development of home-school partnerships (Epstein, 2002).

Bronfenbrenner's ecological perspective (1979, 1986, 1992) offers an appropriate framework for understanding the role of homework in enhancing home-school collaboration. This perspective emphasizes the progressive, mutual accommodation between the person and his/her immediate and larger environments. It has been used in examining parental involvement in education and generating practice implications and new research questions (Seginer, 2006). From an ecological perspective, parents' participation in the homework process constitutes part of the mesoystem that bridges the two microsystems of family and school in their simultaneous effort to facilitate children's academic development. Furthermore, an ecological perspective recognizes the influence of cultural norms and ideological values, the constituent components of a macrosystem, on homework involvement among students and parents.

Homework and Parental Involvement Among Chinese Families

This study examines parental involvement in homework in the ecological context of Chinese families in Hong Kong. It has been well documented that Chinese culture regards education as the most effective avenue to social and economic advancement and the improvement of the person (Salili, Zhou, & Hoosain, 2003; Stevenson & Lee, 1996). Chinese school children in general face heavy pressure on academic achievement. Homework, comprised of mainly drilling and practice, is considered a crucial tool for facilitating and consolidating learning. It is thus not surprising to find that Chinese parents in Hong Kong support the use of homework as a learning strategy (Education Department and Committee on Home-School Cooperation, 1994). Chen and Stevenson's (1989) cross-cultural study find homework to be the primary out-of-school activity for Chinese children in Beijing and Taiwan, and these children devote long hours each day to their schoolwork. Furthermore, compared to Japanese and American counterparts, Chinese elementary schoolchildren perceive homework to be important, useful, and enjoyable. Other studies also demonstrate that the good academic performance among Chinese students is often attributed to their intensive effort on homework (Dandy & Nettlebeck, 2002; Stevenson & Lee, 1996).

To support the importance of education, Chinese parents usually offer help with homework by providing tutorial assistance to their children as well as monitoring the homework process. This practice also serves to highlight the virtues of hard work and to reinforce the importance of effort (Stevenson & Lee, 1996). Huntsinger, Jose, Liaw, and Ching's (1997) study on mathematics learning showed Chinese-American parents spend more time on homework, structure their child's time to a greater degree, and show more encouragement for mathematics-related activities than do their Euro-American counterparts. Furthermore, involvement in homework is often considered a preferred form of home-school collaboration among Chinese parents. Ho's (2003) study on primary and secondary school students in Hong Kong showed that home-based parental involvement, especially learning support, is more popular than school-based involvement. This preference is related to the cultural tendency to maintain a relatively sharp differentiation between the functions of school and home. It is also the result of a short history of school-based parental involvement in Hong Kong, where public policy acknowledging its importance was set up only in the early 1990s (Ng, 1999).

Parental Involvement in Homework and Children's Intellectual Development

A substantial volume of research has accumulated on parental involvement in education, covering various domains of related parenting practices (see reviews in Jeynes, 2005, 2007; Seginer, 2006). Among them, a modest proportion focuses on homework involvement. Review of research on parental involvement in homework confirms its relationships to positive student attitude about homework and school learning, students' self-perceptions, and effective student work habits and self-regulation (Hoover-Dempsey et al., 2001). Yet, studies on homework's impact on student achievement often fail to show positive results. It has been shown that the time parents spent helping their children with homework is unrelated to children's academic performance (Chen & Stevenson, 1996; Pezdek, Berry, & Renno, 2002). Reviews of research findings (Cooper, 2001; Hoover-Dempsey et al., 2001) report mixed results and conclude that no simple relationship can be drawn between parents' homework involvement and student achievement. In order to develop a consolidated understanding of the contribution of parental involvement in homework, future research should focus on at least three methodological and conceptual concerns, namely measurement, developmental difference, and social class variations.

Measurement Issues

First, issues pertaining to research design and measurement may explain the inconclusive results on benefits of parental involvement in homework. It is observed that the operational use of the construct "parental involvement in education" has not been clear and consistent across studies (Fan & Chen, 2001). While parental involvement is multifaceted in nature, certain dimensions of parental involvement (such as parents' educational aspiration for their children) may have more noticeable effect than some other dimensions (such as volunteering) on students' academic achievement (Fan, 2001). Similarly, Hoover-Dempsey et al.'s (2001) research review shows that investigators have seldom defined homework involvement in clearly comparable ways, reflecting the wide range of strategies and behaviors parents employed in helping children regarding homework. Research should thus tap into the multifaceted nature of parental involvement in homework.

Time spent on supervising and assisting children with homework is a crucial indicator of parental involvement as it provides a direct measure of the extent of parent's participation. Yet it is often neglected in parenting research. In those few instances in which it is adopted, only an estimate, but not actual time spent, is measured (e.g., Chen & Stevenson, 1989). In view of its potential in informing parenting practices, it is worthwhile to include this indicator in research design.

Research on homework involvement should also include a variety of behaviors and strategies used by parents in helping children (Hoover-Dempsey et al., 2001). Grolnick and Ryan (1989) suggest a typology of three categories, namely autonomy support, direct involvement, and provision of structure. Autonomy support refers to the extent to which parents value and use techniques that encourage in their children independent problem solving, choice, and participation in homework decisions. Direct involvement is the extent to which parents are interested in, knowledgeable about, and take an active part in their children's homework. Provision of structure pertains to the degree to which parents provide clear and consistent guidelines and follow through on contingencies for their children's homework. Results of Grolnick and Ryan's (1989) study on elementary schoolchildren show that the three types of behaviors relate differentially to development outcomes. Specifically, autonomy support is related to autonomous self-regulation, while direct involvement and provision of structure are associated with school achievement and control perception, respectively. Research should thus include multiple dimensions of child outcomes in order to examine in depth the multifaceted impact of parents' homework involvement.

Developmental Difference

A number of research studies have reported on changes in parental involvement in homework in relation to children's age and grade level. Cooper, Lindsay, and Nye (2000) find that parents of high school students report more autonomy training and less direct involvement than those at the elementary school level. A study conducted by Worrell, Gabelko, Roth, and Samuels (1999) shows that the amount of assistance that parents provide decreases even though the amount of homework increases through the elementary school grades. Seginer's (2006) review of studies on parental involvement in education found that home-based behaviors shift from facilitating school learning skills in preschool and kindergarten to helping with and checking homework in elementary school to motivational support (e.g., monitoring school progress, communicating with child on school matters) in junior and senior high school. This pool of evidence illustrates how parents make use of developmentally specific strategies in engaging in children's education. Parenting practices are thus likely to result in differentiated impact on student achievement at different grade levels (Cooper, 2001). This argument is supported by Jeynes's (2007) research review on the impact of parental involvement on academic achievement, which shows that primary school studies have higher effect size than studies on high schools. Research on the impact of parental involvement in homework should thus focus on grade level as a factor.

Social Class Variations

The last issue to consider for parental involvement research is social class. It has been pointed out that inconsistencies in linking parent involvement to academic achievement are related to the failure of studies to fully assess differential effects by socioeconomic status (Domina, 2005; McNeal, 1999). Evidence collected in Hong Kong and other parts of the world finds that parental involvement in education often relates to the socioeconomic background of the family (Ho, 2000, 2002; Lareau, 1987). Middle-class parents in possession of cultural and social capital help children with homework more readily than their working-class counterparts. McNeal's (1999) analysis of high school students in the U.S. shows that parental involvement has great effects on academic achievement for more affluent students, as the effects are magnified through the greater level of cultural capital possessed by members of the upper class. Yet, Domina's (2005) study on U.S. elementary school children reports the opposite: involvement of parents of lower socioeconomic status (SES) may be more effective in promoting children's achievement than that of parents of high SES. In view of the contradictory findings, it is of interest to find out how the factor of socioeconomic status influences the impact of parental involvement on children's educational outcomes among Chinese families in Hong Kong.

Research Scope and Objectives

This study contributes to the wealth of research on parental involvement in homework by examining Chinese families with school-age children in Hong Kong. The competitive nature of the achievement-oriented education system in Hong Kong reinforces the importance of homework and parental involvement, thus rendering it a remarkable ecological setting for research on the topic. The target of this study is on primary school students, as children in the lower grades are generally more influenced by parental values and parents are generally more involved with them (Jeynes, 2007). To examine the differential impact of multifaceted parental involvement dimensions, a host of three educational outcomes – including interest in academic subjects, academic efficacy, as well as efficacy belief on self-regulation – are examined. Furthermore, this study examines the factors of grade level and family socioeconomic status in affecting parental involvement in homework and its impact on educational outcomes.

Method

Sample

This study is part of a large-scale research project on homework involvement among primary school students in Hong Kong. Data for the project were collected from students, parents, and teachers in 36 primary schools using multistage sampling (McBurney, 2001) that involved stratified and cluster sampling strategies. First, a stratified random sample of schools with reference to funding mode (public and private) and geographical region (urban and new town) was drawn from a master list of primary schools in Hong Kong. Invitation letters were sent to the principals to seek the schools' participation. A total of 71 schools were approached; 36 consented to take part in the study. The overall participation rate for schools was 50.7%. The final sample of schools was representative of the territory-wide profile in terms of funding mode and geographical region. At the second stage of sampling, cluster samples were drawn in each participating school using intact classes as sampling units. Specifically, one class each at junior primary (P1 to P3) and senior primary (P4 to P6) levels was randomly selected from each participating school to take part in this project.

Data for this study were collected using questionnaires administered to a total of 2,442 students from 72 classes in these 36 schools, with a response rate of 98.1%. These students also completed a homework diary that recorded homework-related information for three schools days. In addition, their parents filled in a self-administered questionnaire on their involvement in the

homework process. Homework diaries and parent questionnaires were completed at home and returned to the research team via postal mail. Eventually, 1,398 pairs of students and their parents responded, constituting 57.25% of the student sample. After discarding invalid returns, the final sample for this study comprised 1,309 pairs of students and their parents representing all six primary grade levels. Among them, there were 650 boys (49.7%) and 659 girls (50.3%), whereas there were 319 fathers (24.4%) and 990 mothers (75.6%). The mean ages of the students and their parents were 9.88 years (*SD* = 1.75), and 40.92 years (*SD* = 5.91), respectively.

Measures

Data for this study were collected using a homework diary and two sets of questionnaires designed separately for students and parents. Each set comprised a host of measurement scales that assessed specific constructs included in the study. Demographic information – including age, gender, grade level, and parent's education attainment as an indicator of family socioeconomic status – was included in the respective questionnaires.

Parental Involvement in Homework

Information on time spent each day by parents supervising and helping with their children's homework assignments and revisions were recorded in the homework diary for three school days. As high incidence of missing data were reported for the third day of diary data collection, data used in this analysis were drawn from figures averaged over the first two days only. Corresponding figures for student involvement in homework were collected in the diary.

Parental Involvement Behavior

The three dimensions of parental behaviors in homework involvement, namely autonomy support, direct involvement, and provision of structure, were measured using parent-report items constructed for the purpose of this study (see Appendix for details on the instruments). Principal Component Factor analysis with varimax rotation performed on the 10 items of parental involvement behaviors resulted in three factors with eigen values greater than 1, together explaining 54.04% variance. Scree plot also supported a 3-factor solution. The solution on the whole confirmed the structure of the self-constructed instrument. Using factor loading of .5 as a criterion, Factor 1 consisted of the three items on provision of structure, Factor 2 comprised the four items on direct instruction, and Factor 3 consisted of the two items on support for autonomy. Only one item, "We demand our child to finish homework within a designated time," which was designed for the subscale of provision of structure, failed to reach the factor loading criterion across all three factors identified.

Academic Outcomes

Three indicators of academic outcomes, namely interest in academic subjects, academic efficacy, and efficacy for self-regulated learning, were included in this study to assess students' learning performance. They were measured using student-report scales (see Appendix for details on the instruments). The first one was Academic Interest Scale, which was constructed for the purpose of this study. Each of its four self-report scale items measured student's interest in one specific academic subject including Chinese Language, English Language, Mathematics, and General Studies. The second indicator, academic efficacy, was assessed using a self-report scale that measured student's belief in his/her capability in managing four academic subjects. The third indicator tapped efficacy for self-regulated learning using a scale adapted from Bandura, Barbaranelli, Caprara, and Pastorelli (1996). It measured students' belief in their ability to organize and manage learning by themselves. It has been used previously with a research study on primary school students in Hong Kong (Tam & Lam, 2003).

Results

This section reports findings on parental involvement in homework among Hong Kong Chinese families in Hong Kong. First, descriptive statistics on time spent on homework by parents are presented. Associations between parental involvement level and two demographic factors, namely grade level and family socioeconomic status, are examined. Grade-level analysis is conducted by splitting the sample into the junior primary (P1 to P3; n = 623) and senior primary (P4 to P6; n = 686) levels. Family socioeconomic status is indicated by parent's highest education attainment, with 208 parents attaining "primary school or below" and 1,076 attaining "secondary school or above". The second part of this section investigates relationships between parental involvement and student's academic outcomes using correlation analysis and multivariate analysis of variance.

Parental Involvement in Homework

Results showed that primary school students in Hong Kong were given an average of 5.98 (SD = 2.51) pieces of homework assignments each school day, and they spent 170.89 minutes (SD = 100.47) completing these assignments and doing revision. The mean time spent on homework for junior primary and senior primary students was 178.50 minutes (SD = 108.08) and 163.98 minutes (SD = 92.55), respectively. Only eight students in the entire sample reported

spending no time at all on homework in the two days of data collection. Correspondingly, parents spent a mean of 36.98 minutes (SD = 45.85) each day assisting and supervising children's homework. The corresponding figures for parents of junior and senior primary students were 49.88 minutes (SD = 47.83) and 25.24 (SD = 40.60), respectively. Independent-sample t-tests comparing homework involvement between senior primary and junior primary students showed significant grade-level differences. Specifically, junior primary students and their parents spent more time on homework than their senior primary counterparts, $t(1307)$s = 2.62 and 10.07, ps < .01, respectively.

Analysis on parental involvement proceeded with two considerations. First, the large values of standard deviation indicated that the amount of homework assigned to and the amount of time spent on homework assignments and revisions varied tremendously across individual students. It was deemed appropriate to factor this information into the assessment of parental involvement. Hence, an indicator of parental involvement ratio was compiled by dividing parent's time spent on homework by their child's. Second, a large variance with parents' time spent on homework was observed as 34.7% of the sampled parents reportedly did not spend any time at all on children's homework. Given this non-normal distribution of parental time involvement, a tripartite split on the sample was conducted using the median value of parental involvement ratio (.29). As a result, three parental involvement level groups were generated. Specifically, the group "no involvement" consisted of cases reporting no parental involvement (parental involvement ratio = 0; n = 447); the second group "low involvement" comprised cases with below median parental involvement (parental involvement ratio ≤ .29; n = 423); and the group "high involvement" included cases with above median parental involvement in homework (parental involvement ratio > .29; n = 431). Frequency distributions across parental involvement level, grade level, and parent's education attainment are presented in Table 1. Result of Chi-square test showed significant association between parental involvement level and grade level, $\chi^2(2) = 136.29$, $p < .01$. Specifically, parents of junior primary school students were more likely to exhibit high involvement in homework and less likely to be uninvolved than those of senior primary students. A second chi-square test was conducted between parental involvement level and parent's education attainment. The association was also significant, with $\chi^2(2) = 20.51$, $p < .01$. Parents with primary-school education or below were more likely to be uninvolved than those with education attainment at secondary school level or above.

Table 1. Frequency Table on Parental Involvement Level, Parent's Education Attainment, and Grade Level

Grade level	Parent's education attainment	Parental involvement level (*f*)					
		No		Low		High	
		f	%	*f*	%	*f*	%
Junior primary	Primary school or below	28	6.33%	30	7.21%	38	8.92%
	Secondary school or above	94	21.27%	173	41.59%	247	57.98%
Senior primary	Primary school or below	72	16.29%	24	5.77%	16	3.76%
	Secondary school or above	248	56.11%	189	45.43%	125	29.34%
Total		442	100.00%	416	100.00%	426	100.00%

Note. Sample size for this analysis was 1,284 as missing data were reported with parent's education attainment. Percentages are column percentages.

Results on parental involvement behaviors (see Table 2) showed that parents generally reported high levels of autonomy support (M = 2.43, SD = 0.59) and moderate levels of direct involvement (M = 1.91, SD = 0.59) and provision of structure (M = 2.13, SD = 0.58). Intercorrelations among the three types of parental involvement behavior were mostly significant with moderate values of Pearsons' rs ranging from -.02 to .50. Hence, multivariate analysis of variance test was employed to compare parental involvement behaviors across the two independent variables of parental involvement level and grade level. Significant main effects were reported with both independent variables, with Wilks' lambda at .89 for parental involvement level and .97 for grade level, $F(6, 2574) = 25.96$ and $F(3, 1287) = 15.56$, ps < .01. There was no significant interaction effect between the two independent variables. Univariate tests showed significant parental involvement difference in direct involvement and provision of structure, $F(2, 1289)$s = 77.57 and 18.34, ps < .01, but no difference in autonomy support. Post-hoc comparisons demonstrated that high-involvement parents exhibited higher direct involvement and provision of structure than the other two groups. In turn, low-involvement parents also performed better in these two involvement behaviors than their uninvolved counterparts. Significant grade-level difference was reported with direct involvement only, $F(1, 1289) = 44.83$, $p < .01$, but not with autonomy support or provision of structure. Parents of junior primary students exhibited higher levels of direct involvement than those of senior primary students.

Table 2. Means of Parental Involvement Behavior Scores by Parental Involvement Level and Grade Level

Parental involvement behavior	Grade level	Parental involvement level			All
		No	Low	High	
		M	*M*	*M*	*M*
Autonomy support	Junior primary	2.45	2.41	2.42	2.42
	Senior primary	2.41	2.48	2.41	2.43
	All	2.42	2.45	2.42	2.43
Direct involvement	Junior primary	1.82	2.03	2.25	2.09
	Senior primary	1.55	1.81	2.11	1.75
	All	1.62	1.92	2.20	1.91
Provision of structure	Junior primary	2.12	2.17	2.24	2.19
	Senior primary	1.93	2.14	2.32	2.08
	All	1.98	2.16	2.26	2.13

Relating Parental Involvement to Academic Outcomes

The second part of the analysis attempted to explore the relationships between parental involvement and academic outcomes. Bivariate correlations between parental involvement behavior variables and academic outcomes computed separately for junior and senior primary students showed only a few significant results. Among junior primary students, only two significant correlations were reported, namely between provision of structure and academic subject efficacy ($r = .11$, $p < .01$) and between provision of structure and efficacy for self-regulated learning ($r = .09$, $p < .05$). Only one significant correlation was reported among senior primary students, namely between autonomy support and academic subject efficacy ($r = .13$, $p < .01$). Intercorrelations between the three academic outcome variables were found to be significant, with values of Pearsons' r ranging from .38 to .62, all ps < .01.

In view of the moderate correlations among the outcome variables, multivariate analysis of variance test was employed to compare differences in academic outcomes across parental involvement level. Given the earlier findings that parental involvement level was associated with parent's education attainment and grade level, a three-way multivariate analysis of variance was conducted to include these two demographic characteristics as additional independent variables and to examine possible interactions. A fractional factorial model was tested, focusing on the main effect of parental involvement (PI), two-way interactions between involvement and grade level (PI x GL) and between involvement and parent's education attainment (PI x PEA), and their three-way interaction (PI x PEA x GL). Pillai's trace was used for this MANOVA as there were unequal group sizes with parent's education attainment.

MANOVA results showed no significant main effect nor three-way interaction effect, whereas both two-way interaction effects included in the model were significant, Pillai's trace of .01 for PI x PEA, $F(9, 3813) = 2.03$, $p < .05$, and .05 for PI x GL, $F(9, 3813) = 7.36$, $p < .01$. Post-hoc univariate tests on the significant interactions showed significant PI x PEA interaction with academic efficacy only, $F(3, 1271) = 3.96$, $p < .01$, whereas PI x GL interactions were significant across all three academic outcome indicators, $F(3, 1271)$s = 20.39, 7.84, and 6.78 for academic interest, academic efficacy, and self-regulated efficacy, respectively, ps < .01.

Tests for simple main effects using Bonferroni adjustments were conducted on these four significant interactions to examine parental involvement differences on academic outcomes within specific groups of grade level and parent's education attainment (see Table 3). Results showed that for the significant PI x PEA interaction, significant parental involvement differences in academic efficacy were reported among students with parents attaining primary education, $F(2, 1271) = 5.38$, $p < .01$, but not among those with higher-educated parents. Among students of parents attaining primary level schooling, pairwise comparisons showed significant parental involvement difference in academic efficacy only between students of uninvolved parents ($M = 2.61$) and those of high-involvement parents ($M = 3.12$). Similar results were reported with academic efficacy with regard to the significant PI x GL interactions. Significant parental involvement differences in academic efficacy were reported for junior primary students, $F(2, 1271) = 6.01$, $p < .01$, but not for their senior primary counterparts. Among junior primary students, pairwise comparisons showed significant difference in academic efficacy between students of uninvolved parents ($M = 2.87$) and those of high-involvement parents ($M = 3.06$) and between children of involved parents and those of low-involvement parents ($M = 3.09$). Charts plotting interactions with significant pairwise comparisons are presented in Figures 1 and 2. No significant results were reported for other simple main effects reported with PI x GL interactions on interest in academic subjects and efficacy for self-regulated learning.

Table 3. Simple Main Effects Tests on Significant Interactions with Bonferroni Adjustments

Variable		Parental involvement level			*F*
		No *M*	Low *M*	High *M*	
Parent's education attainment					
Academic efficacy	Primary school or below	2.61	2.86	3.12	5.38**
	Secondary school or above	2.85	2.93	2.92	1.17
Grade level					
Interest in academic subjects	Junior primary	4.08	4.24	4.19	1.06
	Senior primary	3.73	3.81	3.81	0.43
Academic efficacy	Junior primary	2.68	3.01	3.23	6.01**
	Senior primary	2.58	2.68	2.84	0.26
Efficacy for self-regulated learning	Junior primary	2.70	2.85	2.97	2.28
	Senior primary	2.34	2.48	2.63	1.39

Note. *df* = 2, 1271.
* $p < .05$. ** $p < .01$

Figure 1. Interaction effect of parental involvement level and parent's education attainment on academic efficacy.

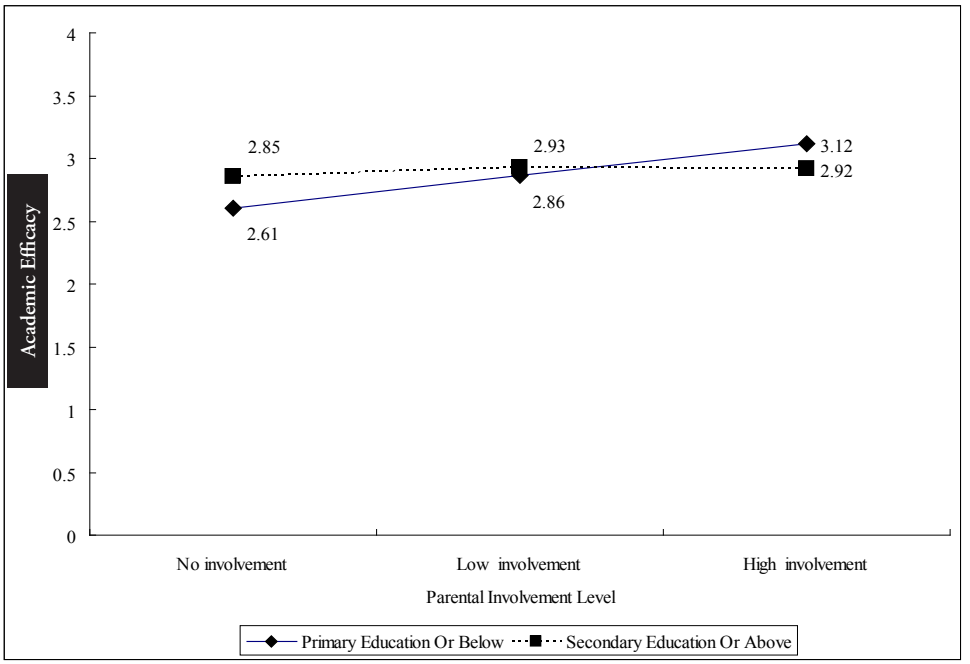
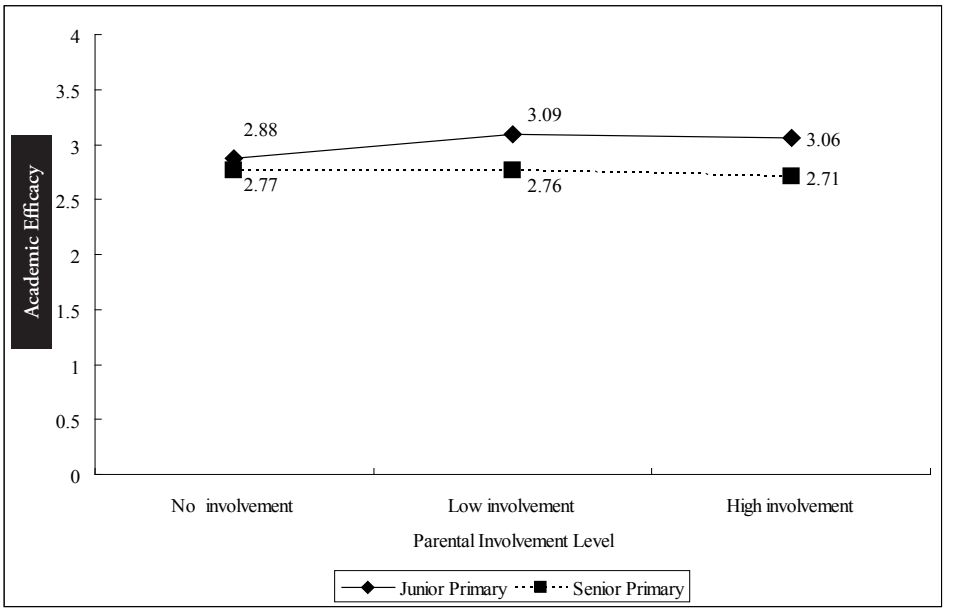


Figure 2. Interaction effect of parental involvement and grade level interaction on academic efficacy.



Discussion

This study draws upon an ecological perspective to examine parental involvement in homework and its relationship with children's educational outcomes within the sociocultural context of Hong Kong. Findings provide a profile of Chinese parents' participation in their school-age children's homework process and examine the link between parental involvement and children's academic development. This study carries unique contributions to research on parental involvement by examining a host of parental involvement dimensions and by collecting information from both children and parents.

Profile of Parental Involvement

Results of this study show that primary school students in Hong Kong across grade levels devote a substantial amount of time each day after school in homework assignments and revision. This shows the persistence of strong Chinese cultural and societal values on education and the importance of effort. To support their children's education, Chinese parents in Hong Kong in general commit considerable time to supervising their children's homework. Yet, there is a large variation in time spent by parents, as around one-third of the parents

report non-involvement. Within the Hong Kong context that emphasizes education, it would be worthwhile to find out why certain parents are uninvolved with their children's homework.

Analyses from this study show marked differentiation among parents with regard to direct involvement and provision of structure but not autonomy support. Specifically, regardless of their time spent on children's homework, parents almost unanimously support the significance of developing children's independence in the homework process, endorsing it as a goal for children as they mature and progress with educational development. The lower level of provision of structure among uninvolved parents reflects their failure to set up guidelines and scaffolding for their children's learning. Furthermore, results of this study show that these uninvolved parents are more likely to have older children as well as to have lower education attainment themselves. On one hand, parental non-involvement is rendered a developmentally appropriate strategy as children advance in grade level. On the other hand, the lack of direct involvement in homework and the failure to provide guidelines and structure among less-educated parents reflects the poverty of cultural capital they bring into the parenting context. Findings of this study thus render support to existing literature on the link between socioeconomic status and parental involvement in education (Ho, 2002; Lareau, 1987).

Parental Involvement and Educational Outcomes

Results of this study show that the benefit of parents' homework involvement varies according to the child's grade level and the family's social class. First, among junior primary students, parents' provision of guidelines and structure is related to children's efficacy beliefs in academic performance as well as in self-regulated learning. For the senior primary students, parents' support of independence and autonomy in homework process is associated with academic efficacy. Similar developmental variation is observed with parental involvement level and its relations to educational outcomes. Gains in academic efficacy are observed among junior primary students with parents who spend time in the homework process when compared to those with uninvolved parents, whereas no similar gain is reported for senior primary students. The more obvious gain in educational outcome incurred by parental involvement in homework among Chinese junior primary students in Hong Kong provides support to results of previous studies demonstrating age-differentiated impacts of parental participation (Jeynes, 2007). Given the heavy homework pressure among Hong Kong students, children of younger ages rely more on their parents' emotional and practical support. In such regard, assistance rendered by parents is more likely to be effective in cultivating young children's learning motivation and

efficacy beliefs. As children advance in grade level, their reliance on parents diminishes as the learning materials become more difficult for parents to handle. Increasingly, children turn to peers or other sources including private tutors for learning support, thus rendering parental involvement less gainful. One interesting point to note with the findings is that while non-involvement is linked to weaker academic efficacy among junior primary students, no specific gain in academic outcome is found with high level of parental involvement over low level. This implies that parents should spend at least some time with their young children in the homework process, but extended involvement does not necessarily lead to larger educational gains.

Second, the impact of parental involvement in homework is found to vary according to socioeconomic status. Parents' homework involvement is linked to higher gains in academic efficacy among children of parents with lower education attainment but not among those with more educated parents. This social-class differentiated impact of parental involvement supports Domina's (2005) longitudinal observation of U.S. elementary school students. In the ecological context of Hong Kong, middle-class students are likely to be provided with various learning resources and support, including private tutorials, enrichment classes, and extra learning materials, on top of parental help. Parental involvement in these cases constitutes only part of the repertoire of social and cultural capital supporting children's learning. Thus educational outcomes are less affected by parental participation in the homework process. Among working-class children, parent's involvement in homework is likely to be the only support for school learning, thus playing a pivotal role in affecting educational outcome. Yet, owing to the cross-sectional nature of the study design, it is possible to interpret the results from an opposite direction of cause-effect. Working-class parents may be more motivated to participate in their children's homework process when their children have better academic performance. The participation of middle-class parents is relatively stable regardless of children's achievement, as they are more likely to recognize the importance of parental involvement, and they are more confident in handling children's homework. Studies of longitudinal design are thus needed in order to investigate further into the direction of causation.

Conclusions and Implications

Results of this study provide evidence of parents' enthusiastic though varied involvement in the children's homework process in Hong Kong, where homework is used heavily as a learning tool. Variation in parental involvement in homework is found to relate to grade level as well as family socioeconomic

status. Differential gain in educational outcome with respect to parental involvement level is noted among junior primary students as well as those with parents of lower educational attainment.

The gain in educational outcomes in relation to parental involvement in homework among specific groups of students confirms the significance of involving parents in educational processes. From an ecological perspective, the developmental potential of a specific setting is enhanced when there are many supportive links between settings such as shared goals, mutual trust, positive orientation, and consensus, so that both can function as a harmonious network (Bronfenbrenner, 1979). In such regard, the developmental potential of the school is enhanced through establishing shared goals and consensus with families. Homework has this potential role to play by bridging learning in school and at home. It is thus crucial for schools to cultivate parents' participation in the home-based learning process. Of significance is the need to encourage parental involvement in homework for students at the junior primary level as well as among those with lower socioeconomic status. Parent education programs focusing on developmentally appropriate homework involvement strategies can help parents to intervene more effectively in children's homework processes. On an informal basis, discussion with teachers on helping with children's homework also serves to strengthen parents' commitment to involvement and enhance their strategies and skills (Hoover-Dempsey et al., 2001). The intrinsic appeal to parents of these school practices makes them potentially effective starting points for developing a full mode of home-school partnership that extends parental participation from home-based to school-based (Epstein, 2002).

Findings on this study are limited by its cross-sectional design as well as its specific scope on primary school students with a limited span of academic outcomes. To develop a comprehensive understanding of the contribution of parental involvement in homework, research is needed to examine the population of preschool and secondary schoolchildren. The use of longitudinal design should be considered so as to further explicate the direction of causal relationship between academic outcomes and parental involvement (Cooper, 2001). Investigation should focus on micro-level processes and mechanisms that go on between parent and child while homework is being carried out (Cooper et al., 2000; Hoover-Dempsey et al., 2001). Finally, research on parental involvement needs to be expanded to other Chinese communities as well as other non-Western societies in order to deepen understanding on homework processes across sociocultural settings.

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Appendix. Details on Research Instruments

Scale and Subscales	Number of Items and Sample Item	Response Format	Cronbach's Alpha
Parental involvement behavior			
Autonomy support	2 "We encourage our child to do homework by him/herself"	4-point format (1="never"; 4= "always")	.63
Direct involvement	4 "We check our child's homework so as to make sure that it is done"	4-point format (1="never"; 4= "always")	.62
Provision of structure	4 "We set up and enforce rules on homework"	4-point format (1="never"; 4= "always")	.61
Academic outcomes			
Interest in academic subjects	4 "I am interested in the subject of Chinese Language"	5-point format (1 = "Strongly Disagree"; 5 = "Strongly Agree)	.51
Academic efficacy	4 "I believe I can handle the subject of Chinese Language"	5-point format (0 = "Not at all"; 4 = "Very much")	.61
Efficacy for self-regulated learning	5 "How well can you plan and organize your academic activities?"	5-point format (0 = "Not at all"; 4 = "Very much")	.78