Parental Involvement in Their Children's Education in Taiwan

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Thesis submitted in fulfilment of the requirements

for the degree of Doctor of Philosophy

in the

Graduate School of Education

The University of Adelaide

December, 2003

To

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CONTENTS

ABSTRACT

Educational reform is a major challenge facing schools in Taiwan. From the first semester 2001, every school must have a parental involvement plan or program in the school schedule. To support these new programs, there is a need for research to examine the extent and nature of parental involvement in primary schools in Taiwan and to investigate the impact of parental involvement on students' outcomes. This study examines to what extent fathers' and mothers' involvement in schooling is related to children's school outcomes, after taking into account differences in family social status, family social structure, and children's perceptions of their school learning environments. A theoretical model was developed linking social status, intervening proximal setting measures, and students' school related outcomes. Quantitative and qualitative approaches were used in the investigation. For the quantitative analysis, data were collected in 2001 from 261 grade six Taiwanese students, 128 boys and 133 girls, from four primary schools in the Taichung city school district. The average age of the children was approximately 11 years. For the qualitative investigation, 20 parents (10 fathers and 10 mothers) and 10 students were selected from the 261 grade six families, for a more in-depth analysis of their experiences and views on parental involvement in children's schooling. In addition, eight teachers and four principals were interviewed to assess their perceptions of the importance of parents' involvement in children's education.

The quantitative findings suggested the general propositions that: (a) children's academic achievement is related to their family social status and perceptions of immediate family learning environments, (b) children's aspirations are related to their parents' aspirations, and (c) children's affective school-related outcomes are

associated with their perceptions of classroom learning environments and parents' involvement at home. These propositions indicate the differential nature of the relationships among family and school environments and measures of children's school outcomes.

The analysis of the qualitative data indicated that between middle social status parents and schools there was a partnership developed for the educational benefit of the children. In contrast, for lower social status parents there was more of a separation, with parents expecting teachers, to teach their children. Middle social status parents tended to have higher aspirations and were more involved in their children's education, at home and in school, than were lower social status parents. Also, mothers (especially those from middle social status families) were more involved in their children's education than were fathers. Typically, parents of middle social status had higher aspirations and were more involved in their children's education, than were parents of lower social status.

The study indicates that in Taiwan, there is a continuing need to move forward to develop the concept of shared responsibilities between families and schools, for the educational benefit of children.

DECLARATION

This work contains no material that has been accepted for the award of any other degree or diploma in a university or tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text.

I, Chih-Lun Hung, give consent to this copy of my thesis, when deposited in the University Library, being available for loan and photocopying.

Date: 10. Dec. 2003

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my supervisors, Professor Kevin Marjoribanks and Dr. Margaret Secombe, for their patience, constant guidance, and encouragement throughout the entire period that I conducted this study.

My greatest thanks are to all parents, children, teachers, and principals who were willing to complete questionnaires and participate in interviews related to the study. This research would not have been possible without their time, thoughtfulness, and generous honesty.

CHAPTER 1

FAMILIES, SCHOOLS, AND CHILDREN'S OUTCOMES

STATEMENT OF PROBLEM

Educational reform is a major challenge facing schools in Taiwan. Although schools play the key role in the national effort to improve the education of our children, they cannot accomplish it alone. Currently, there are several primary school educational reforms in Taiwan, and the most important relates to parental involvement, in the new educational order. Indeed, from the first semester 2001, every school must have a parental involvement plan or program in the school schedule. In 2000, The Head of the Municipal Education Bureau in Taipei stated "every primary school in Taipei must have a project of parental involvement, and as well, the superintendents of the Education Bureau must attend" (Pen, 2001, p. 11). As a result, there were several parental involvement projects in Taipei schools in 2000. To support these new programs, there is a need for research to examine the extent and nature of parental involvement in primary schools in Taiwan and to investigate the impact of parental involvement on students' outcomes. This study examines to what extent fathers' and mothers' involvement in schooling are related to children's school outcomes, after taking into account differences in family social status, family social structure, and children's perceptions of their school learning environments. In this chapter, I present a review of literature related to these issues.

REVIEW OF RELATED LITERATURE

In the sections that follow, I examine: (a) the international experience of parental involvement in children's schools, (b) parental involvement and children's school outcomes, (c) family structure and children's school outcomes, (d) the difference

between fathers' and mothers' involvement, (e) parental involvement and schools, (f) school environments and children's outcomes, and (g) Taiwanese research on parental involvement, school environments, and children's outcomes.

INTERNATIONAL EXPERIENCE OF PARENTAL INVOLVEMENT IN CHILDREN'S SCHOOLS

There is increasing recognition within developmental, educational, and sociological theories that both the school and family are important institutions that socialize and educate children. While educators have often identified inherent conflicts and lack of complementarity between these two institutions, most current theories emphasize the need for connections between families and schools (Epstein, 1996). Epstein (1995) indicates:

> If educators view children simply as students, they are likely to see the family as separate from the school. That is, the family is expected to do its job and leave the education of children to the schools. If educators view students as children, they are likely to see both the family and the community as partners with the school in children's education and development. Partners recognize their shared interests in and responsibilities for children, and they work together to create better programs and opportunities for students … However, the main reason to create such partnerships is to help all youngsters succeed in school and in later life. When parents, teachers, students, and others view one another as partners in education, a caring community forms around students and begins its work … If children feel cared for and encouraged to work hard in the role of student, they are more likely to do their best to learn to read, write, calculate, and learn other skills and talents and to remain in school. (pp. 701-702)

Parental involvement in their children's education has been the subject of research for several decades, and the topic continues to be of interest (e.g., see Carey & Farris, 1996; Carey, Lewis, & Farris, 1998; Carter & Wojtkiewicz, 2000; Center for

Educational Research and Innovation, 1997; Greene, Halle, LeMenestrel, & Moore 2001; Liu & Chien, 1998; Nord, 1998; Nord, Brimhall, & West, 1997; Nord & West, 2001; U.S. Department of Education, 2000). The former U.S. Secretary of Education, Riley (1994) stated, for example, "It is my hope that families, religious and civic groups and schools can come together to create a moral climate that sustains a culture of learning. A culture of learning rooted in the great common tradition of basic American values of democracy, honesty, self-reliance, hard work, and respect for the civic responsibilities of all Americans to participate in our democracy" (p. 5). He also indicated that "We must save this generation of children … So I shall spend much of my efforts in the coming year working with everyone to promote this family involvement partnership for learning. I ask all Americans to please tune in – to recognize that anything we do to connect with our children – to give them a sense that their lives and their learning matter to us – is good for our children and good for our country" (p. 5). In addition, recent U.S. major legislation, such as Goals 2000: Education America Act and the reauthorized Elementary and Secondary Education Act (ESEA), has made parental involvement in their children's education a national priority. School districts in the U.S. are being encouraged to re-examine their parental involvement policies and programs and to demonstrate innovative approaches in order to obtain Federal education funding. Moreover, Goal 8, which was an initiative of the Clinton administration, states "Every school will promote partnerships that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children" (U.S. Department of Education, 1997, p. 4).

Why do parents become involved in their children's education? Hoover-Dempsey and Sandler (1997) suggest that:

1. Parents' role construction defines parents' beliefs about what they are supposed to do in their children's education and appears to establish the basic range of activities that parents construe as important, necessary, and permissible for their own actions with and on behalf of children.

2. Parents' sense of efficacy for helping their children succeed in school focuses on the extent to which parents believe that through their involvement they can exert positive influence on their children's educational outcomes.

3. General invitations, demands, and opportunities for involvement refer to parents' perceptions that the child and school want them to be involved. (p. 3)

Increasing parental involvement in children's learning has become an important issue in many school reform efforts. In the U.S., Carey, Lewis, and Farris (1998), for example, examined a sample of elementary schools from the National Center for Education Statistics of 1998 (NCES: 98). A stratified sample of 900 schools was selected from the elementary school frame. The study indicated that between 82 and 92 percent of public elementary schools provided parents with information designed to promote learning at home and on topics related to child-rearing issues (e.g., nutrition, health, and safety). For the analysis, schools were asked whether, and how, they provided parents with information on the school's curriculum, students' achievement, parenting and child-rearing issues, and the creation of environments that were conducive to learning. Schools were also asked if they included visits to students' families in their educational programs and whether they provided translations or interpreter services for parents with limited English skills. In addition, schools provided information related to how parents supported their children's learning at home, such as, helping with homework, developing study skills, and providing

learning activities outside of school. Carey et al. (1998) found that parents were encouraged to become involved in a variety of school activities (such as open house, back to school nights, arts events, parent-teacher conferences, sports events, and science fairs). Parents were more likely to attend events because of some interaction with students' teachers. Approximately 90 percent of all elementary schools provided parents with opportunities to volunteer both inside and outside the classroom, to assist in fundraising, and to participate in meetings of parent-teacher organizations. Generally, the majority of public elementary schools (79 percent) reported having an advisory group or policy council that included parents. Schools also had resource centers devoted to parents' needs. However, they found that there were some barriers related to parental involvement in schooling. There were, for example, 87 percent of parents who stated that they did not have time to be involved in school. The other reasons preventing involvement were parents' limited education, cultural or social status differences, and parents' attitudes toward the schools.

Parents in many OECD countries have indicated that they want to become more involved in their children's schooling (Center for Educational Research and Innovation, (CERI), 1997). Increasingly, governments are introducing policies that encourage parents to be more involved in their children's education. In Canada, for example, it is claimed that the most significant result of recent educational reforms is increasing parents' power in their children's education (CERI, 1997). McKenna and Willms (1998) indicate that during the 1990s, Departments of Education in all Canadian provinces introduced legislation requiring all publicly funded schools to form parent advisory councils. It was expected that by 2000 every school would have an advisory council. McKenna and Willms found that parents who participated in school-parent committees had a reasonable amount of power, such as the chair being a

member of the selection committee for hiring the principal. The official role of such councils is to: participate in setting the school's mission and establishing school improvement plans; collaborate in school policies related to education, culture, and language; and view results of the School Performance Reviews. McKenna and Willms (1998) note:

> Unlike most developed countries, Canada does not have a national government body responsible for education. Instead, the federal government provides transfer payments to the ten provinces and two territories, which have constitutional jurisdiction over education matters. Consequently, no national group sets the agenda for cooperation between home and school, and there is little collaboration on this issue among provincial departments of education. (p. 378)

In a review of European countries, the Center for Educational Research and Innovation has examined the involvement of parents in their children's education. The review found that in Denmark, for example, parents are used to being involved at every stage of the education process, and school involvement forms part of their normal life. It is stated:

> There is a very close relationship between parents and their children's teachers, and the system of class councils makes for a high degree of parental involvement at the classroom level ... As part of the recent reform movement, they have been encouraged to build partnerships with the local community as well. The Danish system offers parents quite a high level of influence. No other country has a majority of parents on its school boards, and the boards have recently been reformed with the aim of increasing their involvement in making policy for the school. (CERI, 1997, p. 81)

In England, the National Consumer Council has recently convened an Education Forum of some 16 organizations. The agreed remit of the Education Forum is "to

promote a wider discussion of current issues among the whole range of organizations representing parents and students, and to improve arrangements for communication, consultation and liaison between the education consumer lobby and other professional and political groups, especially government " (CERI, 1997, p. 99). At the individual English school level, the CERI review states:

> Parents can have a strong influence on schools through school governing bodies but this is mainly because so much power has been pushed down to school governing bodies ... A great deal of government effort has been put into developing the idea of the parent as consumer and encouraging families to become more critical of what they are offered – mainly as an aid to pushing up standards in schools. This approach has certainly stimulated many schools into examining their practice more carefully. (p. 106)

In France, parents can have direct contact with schools especially through parents' associations. The most common way to communicate with the school, however, is by writing. The review indicates "Although French parents have formally been involved in education for many years, their participation has tended to be institutionalized and politicized" (CERI, 1997, p. 114). In addition, it is stated:

> The current official policy in France is to include parents as full partners in the educational community; this is confirmed through legal frameworks set up in the last ten years ... Parents are now represented at every level – in class councils, school councils, local administrative councils, and on the 'superior council for education' at national level. (CERI, 1997, p. 113)

In Germany, the review concludes "The great strength of the German education system is that parental participation is well-entrenched in federal and state law. Parents have real powers to call teachers to account for the education of their children, individually and collectively, at school level" (CERI, 1997, p. 127).

In Spain, parents have the legal right to be informed about the academic performance of their children three times a year, through the individual school report written by the teacher. Legislation establishes a specific weekly period for contacts between parents and teachers, which is normally used for interviews with individual parents. Such contacts are usually at the invitation of the teacher when there is concern for the progress of a student, but the parents can also take the initiative.

The review by CERI observed that Japan is planning a wide-ranging series of reforms of its education system, based on reports from the National Council of Educational Reform. It observes:

> Although measured levels of attainment in Japan are among the highest in the world – and the envy of many Western nations – there is a great deal of anxiety among government policy-makers, who believe that the narrow lives of many young people mean that their development is distorted … Education policy in Japan is currently in the process of change, and a new partnership between families and schools is to be at the heart of the new approach … One of the key ideas put forward by the National Council of Educational Reform, and by the 15th Central Council as well, is that of community schools. The first report of the 15th Central Council, which was published in July 1996, stresses the importance of the co-operation between the school, the family and the community. This would necessitate a real shift from school-centered education to community – based education. (CERI, 1997, pp. 157-160)

That is, the studies reported in this first section of the chapter indicate that in many countries there is a growing awareness of the importance of involving parents in their children's education. In the next section, I examine research that has examined to what extent such parental involvement is related to children's school outcomes.

Marjoribanks (2002a) suggests "it is generally agreed that if parents are involved positively in activities associated with children's learning then the school outcomes of those children are likely to be enhanced" (p. 1). There is overwhelming evidence that parental involvement in children's education is linked to children's school success (CERI, 1997; Greene, Halle, LeMenestrel, & Moore, 2001; Nord, 1998; Nord, Brimhall, & West, 1997, Nord & West, 2001; Riley, 1994; U.S. Department of Education, 2000). Nord, Brimhall, and West (1997) suggest, for example, that:

> Parents who are involved may be more familiar with the school and with their children's teachers. This familiarity may lead to better parent-teacher relations and more personal attention for their children. It may also enable the parents to intervene earlier if problems in their children's behavior or academic work should arise. Attendance at school functions also shows children that their parents believe school is important. However, it is also likely that parents who are highly involved at school also hold certain beliefs and attitudes and exhibit behaviors at home that foster the academic success of their children. (p. 27)

Nord et al. (1997) provide a broad overview of the extent that parents are involved in their children's schools and they examine the influence that parental involvement has on children's school outcomes. Information on involvement in schools was obtained from the parents of 16,910 kindergartners through 12th graders. The data were collected in 1996 as part of the National Household Education Survey. In general, the study provides support for the proposition that parental involvement in children's education is beneficial for children's school success. They conclude:

> Mothers and fathers in both two-parent and single-parent families tend to decrease their involvement as children move from elementary to middle to high school … In general, families with more financial

> resources show greater levels of involvement ... parents who are highly involved in their children's schools are generally more likely to be involved at home, as well ... Children have the most favorable outcomes if both of their parents exhibit high involvement. (pp. 21-53)

Carter and Wojtkiewicz (2000) examined whether parents were involved differently in the education of their adolescent daughters and sons. The investigation data were obtained from the National Education Longitudinal Study of 1994 (NELS: 94), which collected information from approximately 25,000 eighth-grade U.S. students. Several types of parental involvement were analyzed including school discussion, parent-school connection, parental expectations and parental attendance at school events, and three measures of parental supervision (checking homework, limiting television watching, and limiting going out with friends). They observed that students develop more psychosocial maturity and do better in school when their parents are involved often in schooling. The most supportive parents provided emotional support and encouraged independent decision-making at the same time. Carter and Wojtkiewicz found that daughters received more attention from their parents than did sons. They conclude:

> Perhaps parents are more involved with daughters because there is a greater emphasis on educational attainment for females due to current social conditions, such as delayed marriage and more divorce, which require females to be capable of supporting themselves rather than relying on a husband. These types of social changes may have altered traditional socialization practices that favored males. It is also possible that parents currently socialize their daughters in ways that reflect the lessened social stigma surrounding female employment and success. Perhaps with more women in the U.S. labor force than any time previously, the higher educational expectations for daughters are due to the stronger influence of working mothers. (p. 41)

Ho and Willms (1996) investigated the effects of parental involvement on eighth-grade U.S. students' outcomes. Data were taken from the National Education Longitudinal Study of 1989 (NELS: 89), in which 24,599 eighth-grade students and their parents and teachers were selected. They indicate:

> The findings provide little support for the conjecture that parents with low socioeconomic status are less involved in their children's schooling than are parents with higher socioeconomic status. Furthermore, although schools varied somewhat in parental involvement associated with volunteering and attendance at meetings of parent-teacher organizations, they did not vary substantially in levels of involvement associated with home supervision, discussion of school-related activities, or parent-teacher communication. Yet the discussion of school-related activities at home had the strongest relationship with academic achievement. Parents' participation at school had a moderate effect on reading achievement, but a negligible effect on mathematics achievement. (p. 126)

Similarly, Parcel and Dufur (2001) investigated social capital at home and at school, and the relation between social capital and students' achievement. They revealed that "parental and child human capital are persistent and important determinants of improvements in reading and math achievement" (p. 899). The study indicated that stronger home environments promoted math achievement and reading achievement. In addition, Parcel and Dufur observed that family size had a significant association with children's reading. The findings suggested that family social capital plays an important part in supporting child achievement. They indicate:

> Capital at home and at school can work together for good or ill. For example, mothers with greater human capital in the form of higher mental abilities enhance the positive effects on math achievement of school social capital in the form of going to a school where teachers care, while protecting their children from the negative effects of attending schools with more social problems. Similarly, having access

> to school social capital by attending a safe school buffers some of the negative effect high maternal working hours have on math achievement … We need to consider how the two institutions work together to promote child achievement. The presence of several interactions composed of terms representing both family human capital and school social capital provides significant support for the idea that while capital investment at home is important for child achievement, combinations of investment at school and at home are also influential. (pp. 902-903)

Juang and Silbereisen (2002) investigated the relationships between parenting, adolescent academic capability belief, and school grades. Data were collected from 28 elementary schools in Leipzig, East Germany. Data collection began in 1985 and continued approximately every year until 1995. At time 1 of the data collection, the adolescents were in the 6th grade. The participants included 307 males and 334 females. At time 4 the students were in 9th grade, and the findings revealed that:

> The first set of analyses suggest that parents who demonstrated more warmth, engaged in more discussions concerning academic and intellectual matters with their adolescents, had higher school aspirations for their adolescents, and reported more interest/involvement in their adolescent's schooling, had adolescents with higher capability beliefs at 6th grade, and this, in turn, related to better school grades for adolescents at 9th grade. In the second set of analyses, results show that adolescents who were characterized by the configuration of having above average ability, parental school involvement and capability beliefs, received the best school grades. In contrast, adolescents who were characterized by below average ability, parental school involvement and capability beliefs, demonstrated the worst school performance. (p. 3)

Much of the research on parental involvement in schools has focused on its influence on students' academic success. Other facets of children's school lives are also

important for their social and emotional development. In the following section I review studies that have examined relationships between parental involvement and students' affective outcomes. I have chosen the affective measures of self-concept and aspirations as investigations have shown that they have important associations with children's school success. In addition, I review a number of studies that have examined the family correlates of children's peer acceptance and psychological adaptation, as research has suggested that these affective characteristics are important if children are to be successful in their school contexts.

(a) Self-concept

Much research that has investigated children's self-concept has shown that it is one of the most significant affective characteristics related to students' learning outcomes (e.g., Bong, 1998; Marsh & Yeung, 1997a, 1997b). Marsh and Yeung (1997a) investigated the causal effects of academic self-concept on academic achievement, and their findings indicate:

> This study contributes to the growing body of research ... in support of the reciprocal effects model. Of particular relevance to the study of academic self-concept and its application in classroom settings, this research demonstrates that prior self-concept has significant effects on subsequent school-based achievement beyond the substantial effects of prior achievement. This supports the usefulness of academic self-concept not only as an important outcome variable in its own right but also as a mediating variable that facilitates the attainment of other desirable outcomes. (p. 50)

In an analysis in South Africa, Marjoribanks and Mboya (1998) examined relationships between family social status, perceptions of proximal family

environment, and students' self-concept. They indicate:

1. Family social status and proximal family environment combine to have large associations with students' general self-concept and small to medium associations with scores on measures of specific self-concept.

2. Proximal family environment is related more strongly to self-concept scores than is family social status.

3. There are complex interaction and curvilinear relationships between family and self-concept scores.

4. There are sex differences in the nature of the associations between family social status, proximal family environment, and students' self-concept. (p.163)

In a further investigation, Marjoribanks and Mboya (2001) investigated relationships among distal family capital, family social capital, goal orientations, and adolescents' self-concept. Data were collected from 330 female and 233 male 18-year-old African students in South Africa. They conclude:

1. The relationships between distal family capital and adolescents' self-concept are mediated, or partially mediated, by terms involving adolescents' perceptions of their family social capital.

2. There are different patterns of significant relationships among distal family capital, family social capital, goal orientations and adolescents' self-concept, for female and males.

3. There are distal family capital differences in the linear and curvilinear nature of the relations among family social capital, goal orientations and adolescents' self-concept, that also vary between females and males in those distal contexts. (p. 346)

Sallay (2000) examined the role of the family in shaping self-concept and cognitive style. Data were collected from secondary school students in Hungary. Self-concept included physical, active, psychological, social, and reflective self-components. The findings show that:

> Authoritative and indulgent families, providing nurture and warmth, contribute positively to the development of different self-components. Authoritarian family system, however, proved to show a less enhancing background for the self-development of youngsters. Self-concept components, as well as self-complexity, were also influenced by the parenting attitudes in indulgent family systems, where restriction was low. (p. 1)

Ling (1995) investigated the relation among family relationships, self-concept, and delinquent behavior in Hong Kong. Data were collected from 579 Grade 7 and 9 students, including 318 boys and 261 girls. Ling indicates:

1. Among the various family relationship variables, delinquent behavior was negatively related to parental support, positively related to coercion, and did not directly relate to monitoring.

2. Among the various self-concept domains, delinquent behavior was only related to behavioral conduct and social acceptance. Specifically, behavioral conduct was negatively related to delinquent behavior whereas social acceptance was positively related to delinquent behavior.

3. Regarding the relation between family relationships and self-concept, support was positively related to social acceptance, athletic competence, physical appearance, and global self-worth; coercion was negatively related to behavioral conduct and global self-worth.

4. Family relationship was also found to be indirectly related to delinquent behavior mediated through self-concept. (p. 1)

Dekovic and Meeus (1997) examined the relationships between parent-adolescent relations, adolescent self-concept, and adolescent-peer relations. The sample consisted of 508 Dutch families with adolescent children (254 females and 254 males). They suggest:

> The adolescent's self-concept serves a mediating role in the relationship between maternal child-rearing style and involvement with peers. The mediating role of self-concept was greatest for maternal acceptance. Paternal child-rearing style, however, appeared to have an independent effect on the adolescent's involvement with peers that is not accounted for by the adolescent's self-concept ... The results suggest that a positive self-concept and warm supportive parenting each contribute unique variance to satisfactory peer relations. (p. 163)

In addition, Dekovic and Meeus (1997) indicate that "Parental acceptance of the child especially promotes positive attitudes toward the self-concept; that is, adolescents whose parents report a higher level of satisfaction with their child also report more positive self-evaluation" (p. 173).

In two Israeli investigations, Orr and Dinur (1995) investigated relationships between actual and perceived parental social status, and adolescent self-concept. The first study collected data from 257 students from two urban comprehensive high schools with a wide range of social backgrounds (142 girls and 115 boys in grades 9-11). In the second study, data were from 312 kibbutz students (132 girls and 180 boys) in the same grades. They conclude, that the proposition that:

> PSS (parental social status) and PEPSS (perceived parental social status) are likely to have distinct effects on students' self-concepts was supported, but the detailed results differed slightly from specific

> predictions. In both studies, parental social status was significantly related to school achievement, and perceived social status was related significantly to social self-concept. School achievement, however, mediated the effect of parental social status on the academic self-concept of kibbutz students only. While students were aware of parental status (PSS and PEPSS were significantly correlated), there was no relation between parental status and social self-concept. (p. 613)

These investigations provide support for the general proposition that family learning environments are related to students' self-concept.

(b) Aspirations

The reason that I investigate aspirations, as a school-related outcome variable, is that they have been shown to mediate substantially the impact of family social status on young adults' eventual educational and occupational attainment. In the following section, I review studies that have examined relations between family influences and students' aspirations. Marjoribanks (1997), for example, examined relationships among family contexts (parents' aspirations, independent-dependent orientations), immediate settings (parents' support for learning, teachers' support for learning), and adolescents' aspirations (educational and occupational aspirations). Included in the sample were 250 boys and 250 girls, and their parents from Adelaide, Australia. He indicates:

1. Family contexts had significant associations with adolescents' perceptions of immediate settings and their aspirations.

2. Immediate settings were more strongly related to adolescents' aspirations than were family contexts.

3. Adolescents' perceptions of parents' and teachers' support for learning, in general, mediated family-context differences in boys'

aspirations, but only partially mediated the differences for girls. (p. 119)

In addition, Marjoribanks (2002b) investigated relationships among family background, individual characteristics, proximal learning settings, and adolescents' aspirations, in a longitudinal study of Australian youth (3779 boys and 4001 girls). He concludes:

1. Family background, individual characteristics and proximal learning settings combine to have large associations with adolescents' educational aspirations and small relationships with their occupational aspirations. Girls tend to have educational aspirations that are higher than those of boys, whereas boys have higher occupational aspirations.

2. Adolescents' family country of origin moderates relationships between affective individual characteristics and aspirations.

3. The relationships between family social status and adolescents' aspirations are mediated, in part, by their individual characteristics and proximal learning settings. In contrast, adolescents' family country of origin continues to have unmediated associations with their aspirations.

4. There are family country-of-origin differences in the linear and curvilinear nature of the relationships among individual characteristics, proximal learning settings, and adolescents' aspirations. (p. 43)

In an analysis of Israeli Arab and Jewish adolescents, Seginer and Vermulst (2002) examined relationships among family social background, proximal family variables, educational aspirations, and academic achievement. They conclude:

Our hypothesis that social background would have stronger direct effects on the Arab than the Jewish children was corroborated

> regarding social background direct effect on academic achievement, and partly corroborated its direct effects on parental involvement and educational aspirations. (p. 551)

In addition, they suggest:

> The relevance of parental background for the analysis of family environment in different cultural settings is accentuated by findings showing Arab-Jewish similarity regarding three paths linking between parental involvement and outcome variables, that is, between parental support and demandingness, respectively, and educational aspirations; and between parental demandingness and academic achievement. (p. 552; also see Seginer, 1986)

Qian and Blair (1999) examined how human, financial, and social capital affected the educational aspirations of students from different racial/ethnic groups. Data were from the NELS: 92 study, a second follow-up study of a large national representative sample of U.S. high school students initiated in 1988. In the study they examined white, African-American, Hispanic, and Asian-American high school seniors. They conclude:

> While individual educational performance is important for all racial/ethnic groups, human and financial capital have stronger impact on educational aspirations for whites than for minorities. Asian-American students' aspirations are affected by human capital and whether English is a native language. Parental involvement in school activities - one measure of social capital - has a strong impact on educational aspirations for African Americans and Hispanics. (p. 605)

> African Americans have high educational aspirations despite their relatively low educational performance ... our study shows that African-American high school seniors have the highest educational aspirations when individual characteristics and parental human, financial, and social capital are taken into account ... One important finding is the significant impact of social capital on African

> Americans and Hispanics. Although our social capital measures are far from ideal, parental involvement in school activities turns out to be very significant in affecting educational aspirations among African Americans and Hispanics. (pp. 621-622)

Hao and Bonstead-Bruns (1998) suggest "One important determinant of the agreement between parents' and children's educational expectations is parental influence, which includes: providing economic resources to achieve higher goals, serving as role models of achievement, encouraging specific goals for the child, and recognizing and praising behaviors that lead to high achievement" (p. 176). They examined the relationships between parent-child interactions, ethnic differences, and educational expectations. Data were from the NELS: 88 study, and their findings reveal:

1. Within-family social capital, generated from parent-child interactions in learning activities, is an important mechanism through which parents' educational expectations are transmitted and children's educational expectations are reinforced.

2. Higher levels of parent-child interactions in learning activities increase parents' and children's expectations, thereby increasing agreement and reducing differences. We also confirmed the positive effect of shared family expectations and the negative effect of differences in parents' and children's expectations on students' achievement. These findings highlight the importance of parent-child concordance in expectations, consonant acculturation, and school-family coordination in enhancing students' achievement. (p. 192)

Goyette and Xie (1999) examined the educational expectations of Asian American youths. They indicate "Background factors, for example, explain much of the differences between the educational expectations of the Filipinos, Japanese, and South Asians and those of the whites … Parental expectations play an important role in

explaining the Asian-white gap for all the ethnic groups except in one case: South Asian youths' expectations of finishing college" (pp. 32-33).

That is, the investigations that have been reviewed provide support for the proposition that family learning environments are an important predictor of students' aspirations.

(c) Peer acceptance

Researchers have reported a significant relationship between peer-acceptance and school adjustment. In addition, peer relationships provide an important context for children in both social and cognitive development (Juvonen, Nishina, & Graham 2000; Coolahan, Fantuzzo, Mendez, & McDermott, 2000). Criss, Pettit, Bates, Dodge, and Lapp (2002), for example, examined the relationships among family adversity (i.e., ecological disadvantage, violent marital conflict, and harsh discipline), positive peer relationships, and children's externalizing behavior. The investigation was conducted as part of the Child Development Project, a longitudinal U.S. study of the socialization factors involved in child development. Families with children entering kindergarten were recruited from two cohorts in 1987 and 1988 from three sites: Knoxville and Nashville in Tennessee, and Bloomington in Indiana. They conclude:

> Positive peer relationships moderated the link between family adversity and children's subsequent externalizing behavior ... Positive peer relationships also serve as buffers because peers may function as a form of 'behavioral intervention' for both children and parents ... It is possible that through their interactions with friends and other peers – which often occur in the school context – children may develop more positive impressions of and connections to teachers and school. (pp. 1231-1233)

Domitrovich and Bierman (2001) investigated the relationships between parenting practice, children's perceptions of parents and peers, and social adjustment. Data were from 140 primary school students (71 girls, and 69 boys; from 9 to 11.5 years). The study revealed that "warm supportive parenting practices were associated with high levels of child prosocial behavior, low levels of child aggression, high levels of prosocial problem solving ... In addition, parental warm support protected children from peer dislike" (p. 244).

In addition, Black (2002) examined associations between adolescent-mother and adolescent-best friend interactions during conflict resolution tasks. Data were collected from 39 adolescents (27 female, 12 male) in southeastern New Hampshire. The adolescents were asked to bring their mothers and same-sex best friends to the laboratory to participate. Adolescents were videotaped while discussing unresolved problems with their mothers and then with their best friends. Mothers' behavior with adolescents and adolescents' behavior with mothers and best friends were coded for conflict, withdrawal, communication skills, support-validation, and problem solving. Black indicates that "mothers' communication and support-validation with adolescents was positively associated with adolescents' communication and support-validation with best friend, respectively ... Adolescents' withdrawal and support-validation with mothers was positively associated with their withdrawal and support-validation with best friends, respectively" (p. 235).

Yen (2001) investigated first-grade popular and rejected children in relation to parental acceptance and rejection. Data were from four elementary schools in Tainan, Taiwan. The results suggest that children with positive behavior and who are popular, have parents with greater parental acceptance and more democratic attitudes. In contrast,

children with negative behaviors and who felt rejected had parents with greater withdrawal orientations and more control-oriented attitudes.

In a further investigation, Hsieh (2002) examined relationships among birth order, parenting style, peer relationships, and the social interests of sixth grade students. Data were collected from 738 students in public elementary schools in Tainan, Taiwan. Hsieh suggests that there are significant relations between birth order and peer relationships, and between parenting style and peer relationships.

That is, these investigations suggest that parental involvement in children's education is related to factors associated with children's peer acceptance.

(d) Psychological adaptation

Psychological adaptation includes school adjustment, family adjustment, and physical health. Sometimes adjustment disorder is characterized by the development of emotional and/or behavioral symptoms (such as, depression, anxiety, school behavior problems, fighting, academic problems, social conflicts or withdrawal, and physical complaints), that are in response to a specific stressor or stressors within family and school environments. Mattanah (2001) examined relationships among fourth grade children's academic competence and behavioral adjustment and mothers' and fathers' psychological autonomy, after controlling for the effects of parental limit-setting and warmth. In a sample of 91 two-parent families, parents' warmth and limit-setting were observed while parents interacted with their children. Parents' psychological autonomy was reported on by the children. During a one-day visit to the laboratory, mother-child and father-child dyads participated separately in a 40-minute interaction to gather observational data on parenting style, and specifically on warmth and

limit-setting. The interaction included four activities: (1) a 10-minute assignment involving a long-division math problem, (2) a playful, hand-slapping game, (3) a social-coaching task in which the dyad watched a short videotape of peer conflict and discussed how best to resolve the conflict, and (4) a puzzle-construction task. In addition, teachers rated children's academic competence and behavioral adjustment in the classroom. The warmth/responsiveness of parenting consisted of warmth/coldness, responsiveness, and creativity. Three parenting variables were examined that assessed limit-setting, precision in use of language, and confidence in the parental role. The limit-setting scale assesses how well the parent establishes, maintains, and follows through on limits set during the interaction. The study indicates:

> Both mothers' and fathers' effective limit-setting were associated with greater academic competence, fewer aggressive behaviors, and fewer signs of depression and anxiety in their eldest fourth-grade children. In addition, fathers' warmth and high level of psychological autonomy were associated with adaptive outcomes in the classroom environment. Fathers' psychological autonomy showed unique effects on children's academic competence and internalizing behaviors, over and above the effects of warmth and limit-setting. (p. 371)

Moreover, the findings suggest that "fathers' psychological autonomy was associated with adaptive outcomes in children, over and above the effects of fathers' warmth and limit-setting, using observational data to assess warmth and limit-setting, rather than child report" (p. 372).

Dinh, Roosa, Tein, and Lopez (2002) examined a mediation model of the relationship between acculturation (immigrant status and language) and problem behavior proneness among 330 Hispanic children and adolescents (between fourth and eighth grade), from an urban school district in the southwest region of the U.S. The findings

revealed that "Acculturation was predicted to have an indirect, but positive, relationship to problem behavior proneness through parental involvement and self-esteem. The results partially supported the model and indicated that parental involvement, but not self-esteem, played a significant mediational role in children's problem behavior proneness. The individual indicators of problem behavior proneness among Hispanic youth were significantly interrelated" (p. 295).

Higgins and McCabe (1996) investigated family characteristics as mediators of adjustment in maltreated (sexual abuse, physical abuse, psychological maltreatment, neglect, witnessing family violence) and non-maltreated children. Fifty parents of children aged 5 to 12 years were recruited from community organizations and human service agencies in metropolitan and regional Australian centers. The study predicted that "family background variables would provide significant prediction of both child maltreatment and adjustment scores and that maltreatment scores would predict children's adjustment"(p. 7). They indicate:

> If a child has experienced one type of abuse or neglect, there will be a high probability that they will also have experienced one or more other maltreatment types. Psychological maltreatment had the strongest level of association with the other maltreatment types. As the associations between psychological maltreatment and physical abuse, neglect and witnessing family violence are so strong; it can be assumed that the child victim of psychological maltreatment is also the victim of one or more other types of abuse or neglect. ... Neglect had a strong impact on adjustment. Neglect was strongly associated with both other maltreatment types and with five of the six measures of adjustment. This type of abuse was the most strongly related to poor adjustment in children, followed by psychological maltreatment. (pp. 7-8)

Wu (1998) examined the relations among adolescents' perceptions of parental conflict, parent-child relationships, and their adjustment in two-parent and single-parent families. Data were collected from 353 junior high school students in Taiwan. The findings revealed that:

1. There is no difference among gender, family structure interactions, adolescents' perceptions of parent-child relationships and adjustment. However, adolescents in single-parent families feel more parental conflict and threat.

2. There are significant associations between parental conflict (e.g., threat, self-blame) and adjustment (e.g., self-concern, psychological development, school adjustment, interpersonal relationship, and family life), for adolescents in two-parent families. (p. ii)

Sartor and Youniss (2002) examined the relationships between adolescent identity achievement and parental support, social monitoring, and school monitoring among 10th and 12th graders. Identity achievement was measured using the Identity subscale of the Erikson Psychosocial Stage Inventory. The subscale is designed to assess the degree to which the identity achievement versus identity confusion stage has been negotiated successfully. They indicate:

> Parental support and monitoring would be associated with higher identity achievement … The girls in this study reported higher levels of each of the positive parental involvement factors than did boys, but there were no gender differences in identity achievement. Parental support and monitoring of social and school activities were significant predictors of identity achievement across age and gender. Results also suggested that the association between parental involvement and identity achievement differs by gender and it changes as a function of age. (p. 221)

That is, the investigations that have been reviewed suggest that family learning environments have an important association with children's psychological adaptation.

The studies that have been presented in this section of the chapter indicate that parental involvement has important associations with children's academic outcomes. In addition, the investigations show that family learning environments have important associations with children's affective outcomes such as self-concept, aspirations, peer acceptance, and psychological adaptation. There are few studies, however, that have examined in the one investigation family correlates of children's academic achievement and a set of affective characteristics. One of the aims of this study, is to build upon previous research and explore family influences on academic and affective outcomes for children in a Taiwanese context. While parent-child interactions are probably the most important indicator of family influences they are only one measure of family environments. Social scientists have had a long tradition, for example, of examining the social structure of families where such structure is defined by family size and birth order. In the following section, I examine research that has examined to what extent family structure is associated with students' outcomes.

FAMILY STRUCTURE AND CHILDREN'S SCHOOL OUTCOMES

Many investigations have used sibling variables such as sibship size (the number of children in the family) and birth order as central elements to explain variations in children's intellectual development, academic, and affective outcomes (e.g., see Downey, 1995, 2001; Guo & VanWey, 1999a, 1999b; Marjoribanks, 2001; Marjoribanks & Kwok, 1998; Marjoribanks & Mboya, 2000).

Investigations have long noted the negative relationships between sibship size and children's educational outcomes. Downey (1995), for example, examined the relationships among sibship size, parental resources, and children's educational performance. Data were collected from NELS: 88, which provided a representative sample of eight-grade U.S. students that included 24,599 boys and girls. Parental resources included interpersonal and economic resources. Interpersonal resources were assessed by frequency of talk, parents' educational expectations, and that parents know eighth grader's friends and know friends' parents. Economic resources were measured by a computer in the home, educational objects in the home, money saved for college, cultural classes, and cultural activities. The findings indicate:

> A linear relationship occurred between sibship size and interpersonal resources measured at the individual level. Economic resources measured at the individual level (cultural classes, cultural activities, money saved for college) followed a nonlinear pattern while economic resources measured at the household level (computer and educational objects) modeled a threshold pattern. Apparently economic resources, whether measured at the individual or household level, decrease more rapidly than do interpersonal resources as sibship size increases. Interpersonal resources are also sensitive to sibship size increases, but their decline is less dramatic, perhaps because parents' energy is more readily increased than are parents' economic resources. Furthermore, a combination of interpersonal and economic resources successfully mediates the effect of sibship size on educational performance, explaining it entirely in the cases of grades and scores on standardized math tests. Thus, either parental resources, or something highly correlated with parental resources, is largely responsible for the lower educational performance of children in large versus small families. (p. 758)

Downey (1995) indicates "parental resources prove to be an effective block of intervening variables, as the sibship size coefficient is greatly reduced when they are added" (p. 756). In addition, he concludes:

> My analyses support the resource dilution model in three ways. First, the availability of parental resources decreases as the number of siblings increases, net of controls. The functional form of this relationship is not always linear, however, and depends on whether the resource is interpersonal or economic. Second, parental resources explain most or all of the inverse relationship between sibship size and educational outcomes. Finally, interactions between sibship size and parental resources support the dilution model as children benefit less from certain parental resources when they have many versus few siblings. (p. 746)

In addition, Downey (2001) develops, in more detail, three key features of the dilution explanation. He suggests "Parental resources are finite, additional siblings reduce the share of parental resources received by any one child, and parental resources have an important effect on children's educational success ... Dilution theorists believe that parental investments matter but that the importance of particular resources probably changes across periods of the life course" (pp. 498-499).

Similarly, Marjorbanks (2001) examined relationships among sibship size, birth order, and measures of academic performance, academic self-concept, and educational aspirations at different levels of family educational resources. Data were collected from 2,530 boys and 2,450 girls in Years 9 and 10, as part of a national longitudinal study of Australian secondary school students. He indicates:

1. Family educational resources have significant associations with children's school-related outcomes at different levels of sibling variables.

2. Sibling variables continue to have small significant associations with affective and cognitive outcomes, after taking into account variations in family educational resources.

> That is the investigation provides only partial support for the sibling dilution hypothesis. (p. 33)

Guo and VanWey (1999a) examined whether the relationship between sibship size and children's intellectual development is causal or spurious. Data were from the National Longitudinal Survey of Youth (NLSY). The NLSY contains a large number of U.S. children for whom intellectual development was repeatedly assessed in 1986, 1988, 1990, and 1992. From an analysis using change models, their findings show:

> These change models allow us to control for such unmeasured effects as family intellectual climate, family value system, and family genetic heritage. We begin by replicating in these data the negative statistical relationship between three cognitive measures and sibship size. We then apply the change models to siblings measured at two points in time and to repeated measures of the same individuals. By considering sibship size as an individual trait that changes over time, we control for effects that are shared across siblings and over time. When these shared effects are controlled, the negative relationship between sibship size and intellectual development disappears, casting doubt on the causal interpretation of the negative relationship conventionally found. (p. 169)

However, Guo and VanWey (1999b) indicate "what is most important is probably not sibship size, but parental emphasis on educational achievement. This emphasis can generate the necessary resources for intellectual development. When children from large families are observed to be associated with lower test scores, it is probably not because of sibship size, but because the necessary nonmonetary resources are absent from the family in the first place" (p. 205).

Other researchers have been more concerned about the relations between birth order and children's development (Zajonc & Markus, 1975; Freese, Powell, & Steelman

1999; Paulhus, Trapnell, & Chen, 1999; Sulloway, 1996). Confluence theory was developed to explain the negative effect of birth order on intelligence. Paulhus, Trapnell, and Chen (1999), for example, investigated birth order effects on personality and achievement within families. In four studies, data were collected from 1,022 families including children and parents in the U.S. They collected within-family data by asking respondents to compare themselves and their siblings on various personality and achievement dimensions. In Study 1, undergraduates from the University of California were asked to nominate the "rebel" and the "achiever" in their families. Study 2 applied the same methodology to a sample of undergraduates from the University of British Columbia. Study 3 extended the criterion variables to include the Big Five personality traits. Finally, Study 4 replicated Study 3 in a large sample of Vancouver adults. The studies:

> Confirm the birth order differences predicted by the family-niche model of personality development as well as the confluence model of intellectual development. Given the mixed support from recent between-family studies, our success likely derives from our use of the powerful within-family methodology. This additional power follows from the built-in control over a variety of between-family differences, namely, social class, family size, and, especially, genetics. (pp. 486-487)

Retherford and Sewell (1991) examined the relationship between birth order and intelligence. The investigation tested the mathematical form of the confluence theory using aggregate data, between-family data, and within-family data from the Wisconsin Longitudinal Study. They conclude that the confluence theory "despite its ingenuity and intuitive appeal to many social scientists, does not hold up under careful scrutiny. It may even be a theory that attempts to explain a social phenomenon that does not exist" (p. 156).

Travis and Kohli (1995) examined the relationship between birth order and the academic attainment of 817 adults from a variety of social status backgrounds in the U.S. The results revealed "a statistically significant relationship between birth order and educational attainment, but only for the middle social-status group" (p. 505). In addition, Marjoribanks and Mboya (2000) investigated the relationships among social status, sibship size, and measures of parents' support for learning, for adolescents in South Africa. Data were collected from 1,305 (700 female and 605 male) 18-year-olds. The study supported a modified sibling hypothesis that "sibship size has modest significant inverse associations with females' but not with males' perceptions of their parents' support for learning, after taking into account family social status" (p. 909). They suggest "in large families, parents provide fewer resources for daughters than for sons. Although the relationships between sibship size and females' perceptions of parents' support for learning are small, they may help to explain a small part of the sex-related differences that occur in students' affective and academic school outcomes" (p. 910).

Such investigations suggest that when family influences are being examined it is probably valuable to explore parent-child relationships and also measures of family structures. In this present study of the relations between parental involvement and children's school outcomes, I include measures of parent-child interactions and family structure. While I have reviewed research that has investigated relations between parents and their children, I have not differentiated between the possible variations in attention that fathers and mothers devote to their children's education. In the following section, I examine research on the differences between fathers' and mothers' involvement.

In the past, an unstated assumption was that parental involvement meant mothers' involvement. In many eastern societies, many fathers were not actively involved in children's rearing and learning, despite the possible positive benefits of such involvement. Although past societal standards and expectations that discouraged fathers' involvement in children's rearing and learning are rapidly changing, many fathers still find themselves unprepared to assume an active parental role. However, the roles of fathers and mothers are being transformed with the increasing labor force participation of mothers. Greene, Halle, LeMenestrel, and Moore (2001) indicate that "fathers like mothers have multiple roles: economic providers, caregivers and nurturers, teachers and role models, friends and playmates, monitors and disciplinarians, protectors, providers of emotional and practical support to mothers, providers of linkages to extended family and the community, and advocates for children's education" (pp. 11-15).

Investigations have shown that mothers and fathers tend to interact differently with their children. Fathers spend proportionately more time playing with their children, while mothers spend a greater proportion of their total time with their children in care-taking activities (Lamb, 1997). Lindsey, Mize, and Pettit (1997) examined different play patterns of fathers and mothers with daughters and sons. The investigation was conducted in a laboratory to observe the interaction between children and parents, with permission being obtained for 58 children to participate. The six play categories used in the study were: functional play, physical play (any playful contact or gross motor activity between partners, e.g., tickling, running, playing with bat and ball), instructive play, pretense play (using play objects to

represent other objects, and /or assuming play roles including verbal relabeling of objects or role transformations), construction, and other play. They concluded that "boys were more likely to play physically than girls, whereas girls were more likely to engage in pretense play than boys. Both boys and girls were more likely to engage in pretense play in the presence of mothers than in the presence of fathers" (p. 643). That is, children may change their behaviors depending on whether it is the mother or father with whom they are interacting. Furthermore, "parents of girls were more likely to be involved in pretense play than parents of boys. Fathers of boys were more likely to be involved in physical play than fathers of girls or mothers of boys or girls" (p. 643). Generally, mothers were more likely to comply with children's play directives than were fathers.

Kazura (2000) examined the attachment behaviors, play interactions, and social interactions of parents and their children. Data were collected from 27 fathers and 27 mothers and their children from a middle-class U.S. population. The findings suggest:

> Although the level of fathers' involvement was significantly lower than mothers' involvement, there were some interesting qualitative differences in their interaction. Children's play level increased while interacting with their fathers. This suggests that fathers engaged their children in higher levels of pretend play than mothers ... When children had confidence that they had a quality relationship with their father, they felt free to explore their environment to its fullest extent ... Children tended to achieve higher play quality scores with their fathers than with their mothers ... When differences between fathers' and mothers' social interactions with their children were examined, fathers were observed to be more directive than were mothers. (pp. 52-54)

Pettit, Brown, Mize, and Lindsey (1998) examined the relationship between parenting behavior and preschool children's peer competence. They indicate "Mothers' coaching

was associated with girls', but not boys' competence. Mothers' involvement in child-peer play predicted lower levels of child competence, whereas fathers' involvement predicted higher levels of competence. A regression analysis showed that mothers' social coaching and father-child play additively and incrementally predicted children's social skillfulness" (p. 173).

Studies have found that in OECD countries, most of all the parental involvement in cooperative initiatives with schools relates to mothers: parents' power means, "mother power" (CERI, 1997, p 56). In an analysis by Nord, Brimhall, and West (1997), they indicate that in two biological-parent families, mothers are more likely to be involved in their children's school education than are fathers. They indicate, however, that the involvement of both fathers and mother is important in contributing to children's school success. Moreover, they suggest that fathers' involvement is particularly important for children's academic achievement.

West and Noden (1998) examined parental involvement in and out of school in Britain. Interview data were collected in 1994 from 107 British primary students, parents, and teachers. The average age of the children was approximately 10-11 years. In interviews, parents were asked about the process of choosing secondary schools, their aspirations and expectations about their child's future achievement, and how they were involved in their children's schooling. The study indicated that "mothers generally assume overriding responsibility for their children's education. Furthermore, mothers with higher levels of education are more likely to use workbooks and employ private tutors to support their children's education; attendance at parents' evenings and informal discussion with teachers were more likely to be shared with the child's father" (p. 1).

Shek (2001) examined the paternal and maternal influences on family functioning among Hong Kong Chinese families. Data were collected from 378 Chinese families on two occasions. The findings show that:

> Dyadic relationships of the fathers are more important than those of the mothers in determining family functioning ... Similarly, the findings based on parents' perceptions of parent-child relationship quality and demands showed that the father-child relationship was more important than the mother-child relationship in determining family functioning, especially those findings based on fathers' and children's perceptions. Finally relative to mothers' perceptions of marital quality, fathers' perceptions of marital quality were more strongly associated with their perceptions of family functioning ... Fathers are perceived as occupying a more powerful position in the family than mothers, such as controlling the financial resources and making important decisions about the family and the children. Therefore, father-child relationships may be interpreted by the child to be more special than mother-child relationships. As a result, father-child relations would have a more important role in influencing the atmosphere and functioning of the family. (pp. 69-70)

However, it has generally been found that most fathers state that they are too busy and tired from their work to be able to spend much time in school and class activities. Mothers are often the only ones to attend school (CERI, 1997). Greene, Halle, LeMenestrel, and Moore (2001) indicate that there are particular barriers to fathers' involvement in children's schooling. They suggest "men's beliefs about fathering and their perceptions of themselves as competent caregivers are one set of determinants of father involvement in young children's lives" (p. 23). In addition, Greene et al. (2001) indicate "timing of fatherhood within an individual's life course has significant consequences for involvement with children" (p. 24). Because of low rates of marriage and high rates of divorce among teenage parents, adolescent fathers tend to have less

contact with their children than do on-time fathers (i.e., becoming a father in one's 20's). The characteristics of the child, such as gender and age, also affect fathers' involvement in schooling. Generally, fathers have higher involvement in relation to boys' learning and in younger children.

Nord and West (2001) examined fathers' and mothers' involvement in their children's schools by family type and resident status. They indicate:

> Parental involvement in school is generally associated with favorable school outcomes for students living in different types of families. Fathers' involvement seems to be generally important regardless of whether they are biological parents or stepparents or whether they live with the students or not. Resident mothers' involvement also seems to matter to students, but nonresident mothers' school involvement is only weakly associated with one of the student outcomes. Parents in both traditional and nontraditional families should recognize that involvement in their children's schools appears to be beneficial to their children, at least with respect to their school progress. (p. 56)

Until recently, fathers were the hidden parent in research on children's well-being (U.S. Department of Education, 2000). In 1995, former U.S. president Clinton issued a memorandum requesting that all executive departments and agencies make a concerted effort to include fathers in their programs, policies, and research programs where appropriate and feasible. Fathers' importance to children's financial well-being was widely accepted, but their contribution to other aspects of children's development was often assumed to be secondary to that of mothers and was not usually examined (Lamb, 1997; Nord, 1998). The new attention devoted to fathers is not intended to lessen the focus on the important role that mothers play in their children's lives, but rather to highlight the fact that fathers are important as well. The role of fathers in children's lives varies over time and across cultures (Lamb, 1997). Roberts and

Moseley (1996) indicate that fathers generally interact with children in more physical and less intimate ways than mothers. Fathers play a complex role in the emotional and intellectual growth of children. As a result, they suggest that children who have good interactions with their fathers will have positive motivation, cognitive competence, and better social skills. Similarly, the US Department of Education (2000) suggests that there are several advantages related to fathers' involvement in children's education, that include "modeling adult male behavior, problem solving abilities, providing financial and emotional support and enhancing students' performance" (p. 1).

Dekovic and Meeus (1997) examined relationships between parent-adolescent relations, adolescent self-concept, and adolescent-peer relations. They indicate:

> The results from the separate mother and father models show similar influences from each parent. Remarkably, the associations between the parent-adolescent relationship and both aspects of adolescent development (self-concept and peer relations) were generally stronger for the father than for the mother. This finding seems to suggest that the father's behavior toward the adolescent is of a greater importance than the mother's with regard to self-concept development and the development of peer relations. (p. 174)

Generally, Taiwan is not a gender-neutral society. Men and women have clearly defined roles and responsibilities. For example, the father is considered to be the primary income earner for the whole family. While the mother often works, she is expected to take care of the house and the children. When teachers invite parents to be involved in school activities, mothers usually come alone. It is very difficult to get fathers involved. Since mothers have been more involved in children's education, mothers may understand current educational concepts and reforms but often, the

fathers do not. Liu and Chien (1998) found that the traditional role-differentiation situation and the discrepancy of understanding about children's education have often produced disagreements between mothers and fathers. Parents may quarrel with each other about their opinions on teaching methods and expectations for their children.

In this study, I examine the relations between fathers' and mothers' involvement in children's learning and the outcomes of Taiwanese children. While parents have a strong influence on children in the home, research increasingly indicates that parental involvement in their children's school also has an important affect on their children's school outcomes. In the following section, I review studies that have explored the relations between parental involvement and schools.

PARENTAL INVOLVEMENT AND SCHOOLS

Investigations have found that school factors exert a strong influence on how parents become involved in their children's learning (Gardner, Ritblatt, & Beatty 2000; Nord et al., 1997; Pena, 2000). Important school factors include whether the school is public or private, the size of the school, the school environment or climate, school policies and practices, and teacher attitudes and practices. If schools are smaller, for example, it may be easier for parents to establish good partnerships with teachers, and parents may feel more comfortable and more welcomed in such schools (Nord et al., 1997). In one analysis of school size, Gardner, Ritblatt, and Beatty (2000) examined the association between students' academic achievement and parental school involvement. Data were collected from California public high schools in 1995-96. They compared large high schools with small schools. Large schools were defined as having enrollments of approximately 2,000 students or more. Small schools were defined as having enrollments between approximately 200 and 600 students. The study indicates

that parental involvement was greater in small schools than in large schools.

In a qualitative study, Lareau (1987) examined family-school relationships in white working-class and middle-class communities. The results indicate that schools had standardized views of the proper role of parents in schooling. Moreover, social class provided parents with unequal resources to comply with teachers' requests for parental participation. The study suggests that the concept of cultural capital can be used fruitfully to understand social class differences in children's school experiences. Lareau suggests:

> Although the educational values of two groups of parents did not differ, the ways in which they promoted educational success did. In the working-class community, parents turned over the responsibility for education to the teachers. Just as they depend on doctors to heal their children, they depended on teachers to educate them. In the middle-class community, however, parents saw education as a shared enterprise and scrutinized, monitored, and supplemented the school experience of their children. The working-class parents had poor educational skills, relatively lower occupational prestige than teachers, and limited time and disposable income to supplement and intervene in their children's schooling. The middle-class parents, on the other hand, had educational skills and occupational prestige that matched or surpassed that of teachers; they also had the necessary economic resources to manage the child care, transportation, and time required to meet with teachers, to hire tutors, and to become intensely involved in their children's schooling. (p. 81)

In addition, Lareau indicates "middle-class culture provides parents with more information about schooling and promotes social ties among parents in the school community"(p. 82). The study suggests, however, that "Middle-class families have cultural resources that become a form of cultural capital in specific settings. In moving beyond studies of elites, it might be useful to recognize that all social groups

have cultural capital and that some forms of this capital are valued more highly by the dominant institutions at particular historical moments" (p. 83).

Lareau and Shumar (1996) investigated the problem of individualism in family-school policies. They observe:

> Family-school policies generally sidestep the issue of parents' differential educational skills. Similarly, they ignore the potential negative impact on parents' dignity and authority in the home of the unmasking of their limited educational skills. Instead, advocates of family-school programs focus on the importance of parents helping their children and potential benefits of such help. This emphasis may create unreasonable expectations that undermine the programs' goals. Some parents' assistance consists merely of helping their children stay focused on completing their homework, but in other cases, children ask for help with specific tasks. As a group, parents with little education have less knowledge and expertise with which to fulfill these requests. However, policies do not systematically acknowledge these limitations or offer a wide choice of alternative solutions for parents, teachers and children. (p. 26)

The study also revealed that "family-school policies may prove much more successful in middle class communities simply because of the boost provided by the existence of a sophisticated school-based social network" (p. 29). They suggest:

> Educators need to acknowledge this unequal power relationship in family-school encounters. School attendance is compulsory; families who fail to meet educational standards in attendance, hygiene, or discipline may be reported to the appropriate authorities. School policies that aim to promote family-school relationships are undermined by the coercive nature of schools; it is disingenuous for educators not to acknowledge these issues formally and to seek ways to lessen the tensions the issues arouse. (p. 31)

Further, Lareau and Horvat (1999) examined the relationships between parents' involvement in schooling and their third-grade children's school success. Using interview and classroom observations, the research revealed how some black parents, deeply concerned about the historical legacy of discrimination against blacks in schooling, approach the school with possible criticisms. The findings suggest "the importance of focusing on moments of inclusion and exclusion in examining how individuals activate social and cultural capital" (p. 37). They indicate:

> The expected standard that parents should be positive and supportive was difficult for some black families to meet. One reason for the difficulty was the parents' understanding of the broader context of race relations and the ways in which it pervaded the school. In these cases, black parents' attempts to criticize educators directly were rebuffed ... Although middle-class black families still benefit from their class position (and interact with schools in different ways than their less-privileged counterparts), they still face an institutional setting that implicitly (and invisibly) privileges white families. We assert that in this instance, the role of race is independent of the power of class. (pp. 43-49)

In a further investigation, Pena (2000) explored factors that influenced parental involvement in their children's schooling. Data for the investigation were collected through direct observations of the Parent-Teacher Organization (PTO), including the playground committee, parent conferences, and open house meetings. Pena found several factors which affect parental involvement, such as parent cliques, parents' education, attitudes of the school staff, and family issues (such as the availability of transportation and childcare) that influenced the ability of parents to take advantage of the parent activities organized by the school staff. The study suggests that if parental involvement in schooling is to be enhanced then:

> Teachers must first change their attitudes regarding parents and recognize the advantages of parents and teachers working collaboratively. Teachers need to understand that parents are not there to judge their teaching but merely to provide assistance where possible. As some of the observations in this study demonstrated, some school staff simply did not value parents and judged them negatively. Although some parents may speak and dress differently, one should recognize that all parents simply want their children to be successful. Despite any social class and cultural differences, teachers and parents must truly value each other, as each has knowledge and expertise to contribute. For teachers to build collaborative relationships with parents, they need time to plan and organize parent activities. Teachers are heavily burdened with many teaching duties and some understandably feel that they do not have time to work with parents. (p. 52)

Ho and Willms (1996) indicate that "children's academic achievement and the extent to which parents are involved in schools also depend on the intake characteristics of schools" (p138). In addition, they observe "our results suggest that the social status of a school had an effect on achievement that was comparable to the effects associated with the social status of a family" (p. 137). Parents in high social status schools were more likely to volunteer or participate in the parent-teacher organization.

While these studies indicate that parents' involvement in schooling is influenced greatly by school factors, the research suggests that such involvement builds upon parental involvement at home to affect children's school outcomes. While it is important to understand the impact of parental involvement in children's school outcomes, it is also important to have an understanding of how children perceive their school learning environments. Marjoribanks (1994) highlights, for example, the:

> difficult task that confronts parents and teachers when they attempt to design and implement programs to improve children's educational

> outcomes. Families and schools may create supportive environments for learning but children's perceptions and the meaning they impute to those structures will be influenced greatly by allocative structural constraints that surround them. Therefore, while it is important for schools to become involved with parents in joint programs, it is important to involve children in those activities so that their perceptions of their situations can be explored. (p. 514)

In the following section I review research that has examined relations between characteristics of school environments and children's learning outcomes.

SCHOOL ENVIRONMENTS AND CHILDREN'S OUTCOMES

Numerous investigations have examined relationships between characteristics of school environments and children's outcomes. McNeely, Nonnemaker, and Blum (2002) indicated, for example, that very large schools were, in general, not beneficial for students. In a study using data from the National Longitudinal Study of Adolescent Health, they concluded that students in smaller schools felt more attached to school than students in larger schools. The findings revealed that large school size negatively affected school connectedness because teachers could not maintain warm, positive relations with all students.

Blatchford, Baines, Kutnick, and Martin (2001) examined the relations between class size, within class grouping, and students' learning outcomes. Data were collected from 3,157 primary school students in England. The study included quantitative and qualitative analyses, with the qualitative study based on 12 classes in 8 schools and questionnaire responses completed by over 100 teachers. They suggest:

> Children were less likely to work together in larger groups. The qualitative analyses indicated that larger groups were a less effective educational environment: it was difficult to give children the attention

> they might want and need from the teacher, and quality of teaching could suffer; the quality of children's work was lower; and their contribution and concentration in groups could suffer, perhaps especially in the case of the youngest children. (p. 298)

In a further investigation of class size, Alspaugh (1994) found that:

> With the increase in student-teacher ratio or class size there is probably a change in the class environment. The small classes may have a relaxed atmosphere with a lot of social interaction at the expense of time spent on instructional activities … The larger class sizes may be more stressful for both the teachers and students. Teaching is a personal thing so most teachers and students prefer small classes. (p. 596)

Alexander, Entwisle, and Thompson (1987) examined student-teacher relationships in schools and found that low-status and minority students have their greatest difficulties in the classrooms of high-status teachers. They suggest:

> Low-status and minority pupils experience their greatest difficulties in the classrooms of high-status teachers. They are evaluated by their teachers as less mature, their teachers hold lower performance expectations for them, and their teachers score exceptionally low on perceived-school-climate measures. Moreover, year-end marks and standardized-test scores of such pupils apparently are depressed by these indicators of pupil-teacher social distance and teacher disaffection. (p. 665)

In a further analysis of minority group children's success in schools, Griffith (2002) used a multilevel analysis to examine the effect of school environments on academic achievement. Data were from 25,087 U.S. students in 117 elementary schools. They measured school and classroom level instrumental support (academic emphasis) and expressive support (communal relationships). The findings suggest "At the individual

level, student perceptions of each type of support were significantly and positively related to self-reported grade point average, with classroom expressive support having the strongest relation. At the school level, only classroom expressive support was associated with schools having higher students' self-reported grade point average" (p. 349). In addition, the results revealed that "Among schools having more socioeconomically disadvantaged students, expressive support in combination with its respective level of instrumental support was associated with higher grade point average. Additionally, school expressive support combined with classroom instrumental support was associated with smaller gaps in grade point average between minority and non-minority students" (p. 349).

In an analysis by Rury and Mirel (1997), they suggest that effective schools share a number of important characteristics such as "strong leadership by their principals; clear goals for the school; high academic standards; considerable involvement by teachers in decision making, order and discipline within the school; a commitment to homework; and extensive cooperation between the school and home" (p. 92). A study by Phillips (1997), examined the effectiveness of schools by investigating relationships between communitarian climate, academic climate and mathematics achievement, and attendance during middle school. Analyses of longitudinal data of three cohorts of students (N=5,600) from 23 middle schools in the U.S. suggested that "teachers' and students' social and emotional needs must be satisfied before teachers can teach well and students learn well" (p. 656). It is suggested "Improving a school's academic climate may be a more promising way to enhance students' attachment to school and their academic achievement" (p. 657).

While the studies that have been reviewed suggest that global characteristics of schools affect children's learning outcomes, Fraser (1998) emphasized the importance of assessing children's perceptions of their classroom and school environments. Waxman and Huang (1998) examined relationships among student gender, subject area, and grade level differences in students' perceptions of their classroom learning environment. The study included 13,000 students who were from 96 urban elementary, middle, and high schools in the U.S. They conclude "Female students generally reported higher scores for their perceptions of the learning environment than did male students. There were very few differences by subject area, but there were many statistically and educationally significant differences by grade level. In general, middle school classes had less favorable perceptions of their learning environment than did either elementary or high school classes" (p. 95).

Aldridge and Fraser (2000) undertook a cross-cultural study of classroom learning environments in Australia and Taiwan. The study describes the validation and use of an English and Mandarin version of the "What is Happening in this Class?" (WIHIC) questionnaire in junior high school science classes. Data were collected from 1,081 students in 50 classes in Australia and from 1,879 students in 50 classes in Taiwan. They indicate:

> Australian students consistently perceived their classroom environments more favourably than did students in Taiwan on all scales. In contrast, Taiwanese students had a more positive attitude towards their science classes ... students from Australia and Taiwan responded to questionnaire items in ways that were meaningful to their own situations and were often influenced by social and cultural factors ... The learning environments created in each country were found to be influenced by the nature of the curriculum, with the more

> examination driven curriculum in Taiwan leading to more teacher-centered approaches in the classroom. Consequently, emphases considered important to science education in Western Australia, such as involvement, are not always as important or possible in Taiwan. (pp. 127-128)

Dart, Burnett, Boulton-Lewis, Campbell, Smith, and McCrindle (1999) investigated relationships between perceptions of the classroom learning environment, approaches to learning, and self -concept as a learner. Data were collected from 484 students from 24 classes in two metropolitan secondary schools in Brisbane, Australia. They conclude:

> Deep Approaches to learning were significantly related to classroom learning environments which were perceived to be highly personalized and to be encouraging active participation in the learning process and the use of investigative skills in learning activities. High learner self concept was positively associated with Deep Approaches to learning and with classrooms perceived as high in Personalization. It was negatively associated with Surface Approaches to learning. Differences in perceptions of learning environments and approaches to learning in relation to gender and level of schooling were small. (p. 137)

Dorman (2001) examined associations between classroom psychosocial environment and academic efficacy. A sample of 1,055 mathematics students from Australian secondary schools responded to an instrument that assessed ten dimensions of mathematics classroom environments (viz. Student Cohesiveness, Teacher Support, Investigation, Task Orientation, Cooperation, Equity, Involvement, Personal Relevance, Shared Control, Student Negotiation). Results show that "classroom environment relates positively with academic efficacy" (p. 243). Majeed, Fraser, and Aldridge (2002) examined the relationship between students' satisfaction and learning mathematics in Brunei Darussalam. Data were collected from 1,565 junior high school

mathematics students in 81 classes in government schools, using the original 38-item five-scale version of the My Class Inventory (MCI). The findings reveal that:

> The classroom learning environment is related to students' satisfaction in mathematics classes … Student Cohesiveness had the strongest (and positive) association with Satisfaction, while Difficulty was negatively and significantly associated with satisfaction at student and class levels for both the simple correlation and multiple regression analysis … the mathematics classroom environment was perceived more favorably by boys than by girls. (p. 221)

The investigations that I have reviewed indicate that to account for differences in students' outcomes, it is important to examine relations between classroom learning environments and children's school outcomes, as well as investigating the impact of parental involvement on outcomes. In this study, I include an assessment of the children's perceptions of their school learning environments. In the concluding section of this chapter, I review research that has examined relationships among parental involvement, school environments, and children's outcomes in Taiwan.

TAIWANESE RESEARCH ON PARENTAL INVOLVEMENT, SCHOOL ENVIRONMENTS, AND CHILDREN'S OUTCOMES

In the past, participation by parents in their children's schooling has not been a part of Chinese culture. In fact, parents have generally considered that teaching is the responsibility of teachers. Many parents feel that they do not have the knowledge and expertise to provide appropriate learning activities for their children. In addition, teachers are highly regarded in Chinese culture; they are respected as authority figures because of their knowledge. It has been difficult for parents to become involved in their children's school activities. As a result, parents' direct involvement in school education has rarely been practiced in Taiwan (Chen, 2002; Lin, 2001; Lin, 2002a).

Teachers also have not encouraged parental participation. An analysis by Liu and Chien (1998), for example, indicates that Chinese educators have tended to exclude parents from the classroom, because of the belief that children need to establish independence from their parents. In addition, some teachers have felt that parental involvement in the school may negatively affect children's learning and behavior in the classroom. In particular, some teachers are concerned that the involvement of parents could harm the classroom climate that they have carefully created among their students.

Since 1996, the Education Ministry of Taiwan has introduced an important reform including parental involvement in schools. Dr. Mu-Lin Lu (2000), the Vice-Minister of the Education Ministry of Taiwan, has stated:

> Globalization has given Taiwan many challenges. Among these, is the challenge on how best to address the needs of Taiwan citizens and their society, for better understanding and constructively handling the impact that globalization is having upon their lives and to provide them with a workable framework, which will allow them to successfully deal with these challenges. Government support has provided great momentum to the education reform project for Taiwan, whose primary goals for education reform, include the establishment of an innovative mechanism through the re-activation and promotion of traditional values, family education and parental involvement in education, as well as the overhauling of in-service programs, and other pertinent projects targeting the concept of life-long learning. (pp. 1-2)

The new educational reform requires that every primary school must have parental involvement programs in their school schedule. The Education Ministry of Taiwan (2002) indicates that "Parental involvement is seen as a democratic issue both in terms of individual rights, and as a way of making the educational system more democratic

and developing more power at the local level. The whole Taiwan society needs to increase its level of educational participation, and this cannot be achieved without the cooperation of parents" (p. 1).

Promotion of family and school cooperation has become a major issue for policymakers and educators in Taiwan. Lin (2002a) examined, for example, parental involvement in Kaohsiung County and City, where data were collected from 1,367 parents. He found that most of the parents accepted the value of parental involvement in schooling but it was still not a very popular idea. Parents who had higher expectations were more likely to be involved in their children's schooling, and to have better interactions with teachers. Lin also suggests that parents participated more frequently in their children's schooling, when they were concerned about their children's academic achievement.

She (2002) investigated parental involvement in Tainan City and County, and collected data from 500 teachers and 500 parents. The study found that generally, teachers and parents had positive attitudes about parental involvement in schools. She observed that most of the teachers encouraged parents to participate in parent-teacher associations, and accepted the role of parents as assistants, supporters, and advocates. In addition, the investigation indicated that the main barriers to parental involvement were being too busy, lack of interactions with teachers, lack of ability, difficulties of participating in school functions, and differing attitudes between teachers and parents. Wu (2002) investigated parental involvement in Taoyuan County. The findings revealed that there were a variety of school activities that primary schools organized for parental participation, such as school decision-making, parent-teacher conferences, volunteering in school, and educational seminars. He also observed that most parents

participated in school functions because they were concerned about their children's academic achievement. Parents' educational background was associated with their involvement in schooling. That is, parents who had higher educational backgrounds were more likely to be involved in children's schooling.

Lin (2002b) examined parental involvement in Changhua County primary schools. She indicates that parents' attitudes had a significant association with parental involvement. Parents who had higher educational and occupational backgrounds had more positive attitudes, and had higher participation in their children's education. However, Lin found that sibship size was not related to parental involvement in their children's schooling. In a further study, Shiu (2002) examined parental involvement in Taipei city. The findings show that parents were more likely to participate in parent-teacher conferences and volunteer in school or in classrooms, than be involved in other school functions such as Parents' Associations. Most of the parents supervised their children in completing their homework at home. Parental involvement had a significant association with family background. That is, parents who had higher educational background were more likely to be involved in schools.

Chen (2002) indicates, however, that parental involvement in schooling is still not popular in Taiwan among teachers. In interviews, teachers stated that parent-teacher associations placed many pressures on teachers. Although the pressure could help teachers improve their education knowledge and skills, it was suggested that teachers should participate in educational seminars, conferences, and training programs and courses, to improve their understanding of parental involvement. The Chen study suggests that most parents had positive attitudes about parental involvement in children's education. Parents felt that they could understand better what their children

were learning in school if they were involved at school, and that such involvement would improve parents' and children's interactions.

Hsieh (2002) examined the relationship between family social status, students' academic achievement, and parents' expectations in Taipei city. She found that family social status had a significant association with children's academic achievement. Parents who had higher social status and were more involved in schooling, had children with higher school outcomes. In addition, Lin (2002c) observed parental involvement in high schools. Data were collected from 938 students in 24 schools in the central counties of Taiwan. She found that most of the students supported parental involvement in schooling, and that parents' social status had a significant association with parental involvement.

That is, investigations indicate that there is a growing awareness of the importance of involving parents in their children's education in Taiwan. The Taiwanese analyses also suggest that there is a need for research that investigates more sensitively the relations between family and school influences and children's school-related outcomes. That is, research is required that examines the relationships among parental involvement at home and in school, children's perceptions of their school learning environments, and a set of cognitive and affective school outcomes. When such research is undertaken it will be possible to have a greater understanding of the role of parental involvement in Taiwanese education.

In this study, I examine relations among parental involvement, family structure, school environment, and school related outcomes for Taiwanese children from different social status backgrounds. In particular, I examine relationships among parents'

involvement at home and in school, and children's academic achievement, aspirations, self-concept, peer acceptance, and psychological adaptation. For the investigation I have constructed a theoretical framework which, in part, is developed from the research that I have reviewed in this chapter. While that research has indicated the significant influence of families on children's outcomes, it has stressed the importance of developing strong parent-school relationships for the enhancement of children's academic and affective outcomes. That is, the review of research has indicated the interrelated nature of the influences of parents and schools on children's school-related outcomes. In addition, the review suggests that these influences are likely to be different for families from different social status groups, and possibly vary for children with different family structures. In the next chapter, I present the theoretical framework of the investigation.

CHAPTER 2

THEORETICAL FRAMEWORK

GENERAL THEORETICAL FRAMWORK

In developing a bio-ecological model of human development, Bronfenbrenner (1994) and Bronfenbrenner and Ceci (1994) proposed that explaining variations in developmental outcomes necessitates an understanding of relationships among distal environmental contexts, proximal learning settings, individual characteristics, and measures of those outcomes. Bronfenbrenner and Ceci (1994) indicate:

> 1. Especially in its early phases, and to a great extent throughout the life course, human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving biopsychological human organism and the persons, objects, and symbols in its immediate environment. To be effective, the interaction must occur on a fairly regular basis over extended periods of time. Such enduring forms of interaction in the immediate environment are referred to henceforth as proximal processes. (p. 572)
>
> 2. The form, power, content, and direction of the proximal processes affecting development vary systematically as a joint function of the characteristics of the developing person, of the environment – both immediate and more remote – in which the processes are taking place, and of the nature of the developmental outcomes under consideration. (p. 572)

In addition, Ceci, Rosenblum, de Bruyn, and Lee (1997) suggest:

> Proximal processes are defined as reciprocal interactions between the developing child and other persons, objects, and symbols in its immediate setting. In order to qualify as a proximal process, an interaction must both be enduring and lead to progressively more

> complex forms of behavior. The efficiency of a proximal process is determined to a large degree by the distal environmental resources ... Proximal processes are the engines that actually drive the outcome but only if the distal resources can be imported into the process to make it effective. (pp. 310-311)

Ceci, et al (1997) also indicate that distal processes provide:

> limits on the efficiency of proximal processes. First, the distal environment contains the resources that need to be imported into proximal processes for the latter to work maximally. The total environment is therefore a combination of distal process and proximal processes ... A second reason for the importance of the distal environment is that it provides the stability necessary to benefit from proximal processes. A large literature illustrates that the less stable the distal environment, the worse the developmental outcome, regardless of social class, ethnicity, or ability levels. (p. 312)

I have adopted the bio-ecological model to develop a general theoretical framework for my own investigation. That is, I construct a model that suggests possible relationships among family social status, family structure, parents' aspirations, parental involvement, classroom learning environments, and students' school-related outcomes. In the following section I consider research that has examined relations between distal family contexts and students' school outcomes.

Distal Family Context

The importance of distal family context is illustrated in a study by Rumberger (1995) who analyzed factors that affect students' drop out from middle schools. Rumberger observes:

> Family background is widely recognized as the most single important contributor to success in school. Although subsequent research found

> that much of the influence of family background was mediated through schools, in virtually all research on school achievement, family background still exerts a powerful, independent influence. Most empirical research on family background has focused on the structural characteristics of families, such as socioeconomic status and family structure. Research has consistently found that socioeconomic status, most commonly measured by parental education and income, is a powerful predictor of school achievement and dropout behavior. (p. 587)

In an Australian study, Williams, Long, Carpenter, and Hayden (1993) investigated the entry to higher education of year 12 graduates within the first few years following graduation from secondary school in the 1980s. The findings reveal that social background had strong associations with educational opportunities. They conclude:

> 1. Family background (measured by parents' occupations, parental education, and household possessions) continued to confer the advantage we have come to expect. These differences in participation came about because higher status families promote higher levels of achievement and provide higher levels of psychological support for their offspring to continue on in education.
>
> 2. Even after taking into account the advantages of family background, achievement and psychological support, an advantage persists for those from families in which parents are highly educated.
>
> 3. It helps to be rich. Year 12 graduates from the wealthiest 25 per cent of families enter higher education at rates from 20 percentage points above those from 'poor' families. However, part of the difference is due to wealth and part due to other aspects of family background related to wealth. (pp. 98-99)

Furthermore, Roscigno and Ainsworth-Darnell (1999) examined relationships among family background, the educational and cultural resources of families, and students'

achievement. Data were taken from NELS: 92 study in the U.S. Family background measures included a socioeconomic status composite, computed from family income, parental education, and parental occupation. Family cultural capital was measured by students' participation in cultural trips (museums) and cultural classes (art, music, dance, and similar activities). Family educational resources were assessed by the number of potentially educationally relevant items that were reported to be present in the home, such as a daily newspaper, an encyclopedia, a computer, more than 50 books, and a pocket calculator. They indicate:

> Cultural and educational resources and racial gaps in these attributes vary significantly as a function of family background and have strong and positive effects on both GPAs (grade point averages) and standardized achievement. Cultural capital and educational resources, however, only moderately explain racial and social-class gaps in performance. The most noteworthy are conditional effects based on race and class status. Black and low-SES students receive less return for cultural trips and educational resources than do their white and higher-SES counterparts. (p. 171)

In addition, after taking into account family capital variables and measures of teachers' evaluation of students, Roscigno and Ainsworth-Darnell found that family socioeconomic status continued to have a significant direct association with the achievement measures.

Hao and Bonstead-Bruns (1998) investigated relationships between parents' and children's educational expectations, and the academic achievement of immigrant and native students. Data were taken from the NELS: 88 study in the U.S. Eighth graders were from four immigrant groups (Chinese, Filipino, Korean, and Mexican) and three native groups (Mexican, black, and white). They indicate "Our results confirm the importance of parental education, income, and occupation … lower SES,

immigrant children are more likely to attend public schools that have many minority and low-SES students. These schools tend not only to be of lower quality and produce students whose achievement is low but to reduce the positive effect of shared family expectations on achievement" (p. 193).

Dumais (2002) examined associations between family social status, cultural capital, gender, and students' school success. Data were from the NELS: 88 study in the U.S. Cultural capital in this study was the sum of the number of activities (e.g., art lessons, music lessons, dance lessons, public library visits, concerts, and art museums) in which the student participated. Family socioeconomic status included fathers' and mothers' educational level, fathers' and mothers' occupations, and family income. The findings reveal that:

> Cultural capital within the higher SES group had more of a positive impact on grades for female students than for male students. That is, high-SES males, who by their position in the class structure, are the most likely to be educationally and occupationally successful, do not need cultural capital as much as do females in the same class position. (p. 61)

In two Israeli investigations, Orr and Dinur (1995) investigated relationships between actual and perceived parental social status, and adolescent self-concept. They conclude "parental social status was significantly related to school achievement, and perceived social status was related significantly to social self-concept" (p. 613).

Considine and Zappalà (2002) examined relationships between social and economic disadvantage and Australian students' academic performance. Data were from a sample of 3,329 students who were on The Smith Family's 'Learning for Life' (LFL) program in 1999. The sample included students from Years 1 to 12 from State schools

in NSW, Victoria, Queensland, South Australia, and the ACT. The findings "support the notion that the 'social' and the 'economic' components of the socioeconomic status equation have distinct and separate influences on educational outcomes. While financial assistance to schools and families in need is important, policies and programs that also assist low-income parents in providing appropriate psychological and educational support for their children should also be promoted" (p. 129).

A cross-national analysis by Baker, Goesling, and LeTendre (2002) investigated relations among socioeconomic status, school quality, national economic development, and students' academic achievement. They indicate "In all of the countries in the sample, family-background variables are much more significant predictors of students' achievement than are school resource variables. The significant effects of family background persist even after controlling for the quality of school resources and national levels of economic development" (pp. 303-304).

In addition, De Graaf, De Graaf, and Kraakamp (2000) investigated the association between parental cultural capital and educational attainment in The Netherlands. Cultural capital is defined by participation in beaux arts and parental reading behavior. The study examined whether cultural capital works especially in favor of children from high social status backgrounds or whether it serves as a path to mobility for children from low status backgrounds. Using data from the Netherlands Family Survey, 1992-93 which included 1,653 adults, the findings suggest that "Children from higher social origins do well at school and that the cultural habits of their parents do not contribute that much to their success … The impact of financial resources on educational careers is considerably smaller than the impact of parental cultural resources" (p. 108). That is, the results indicate that while children from higher social

status families tend to do well at school, their parents' cultural habits contribute little to that success. In contrast, parental reading in low status families is an important predictor of children's educational attainment. It is suggested that the findings provide support for the cultural mobility hypothesis, which proposes that the effect of cultural capital on academic success is strongest for students from low social status families. The study concluded, however, that while children from low social status backgrounds may take advantage of their parents' cultural resources, especially reading behavior, their educational attainment is still lower than that of children from high social status backgrounds.

Hanley and McKeever (1997) examined relationships between social class and the allocation of secondary and tertiary education places in state-socialist Hungary. The findings show that "the children of professionals were, in general, more likely than the children of cadre administrators to advance to higher educational levels in state-socialist Hungary. The persistence of inequalities in the allocation of education in state-socialist societies derived primarily from the inequitable distribution of cultural capital in the population and only secondarily from the inequitable distribution of social capital" (p. 15).

Lareau (2002) examined the relation between social class and childrearing in black families and white families in U.S. The study is based on interviews and observations of children, aged eight to ten, and their families. Lareau indicates:

> Middle-class parents engage in concerted cultivation by attempting to foster children's talents through organized leisure activities and extensive reasoning. Working-class and poor parents engage in the accomplishment of natural growth, providing the conditions under which children can grow but leaving leisure activities to children

> themselves. These parents also use directives rather than reasoning. Middle-class children, both white and black, gain an emerging sense of entitlement from their family life … Middle-class children gained individually insignificant but cumulatively important advantages. Working-class and poor children did not display the same sense of entitlement or advantages. (p. 747)

These international studies indicate the importance of including family social status in a theoretical framework to explain differences in students' school-related outcomes. In the following section I consider research that has examined relationships between intermediate family contexts and students' school-related outcomes.

Intermediate Family Context: Sibling Structure

Between relatively remote or distal social contexts and proximal family settings there are intermediate family contexts that may be related to children's outcomes. The idea of different regions of family influences was introduced by Lewin (1935) in one of the earliest theoretical orientations proposed for the examination of children's learning environments (see Marjoribanks, 2002a).

Lewins' field theory proposes that the environment surrounding individuals might be considered to be differentiated into regions classified along a continuum of nearness-remoteness to give an indication of the influence that one environmental region has on another. That is, between contexts such as social status and settings defined by adult-child interactions, there are other social structures that influence children's development. In this study I used the sibling structure of families as an intermediate measure of family capital.

Social scientists have had a long-standing fascination with exploring relations between the sibling structure of families and measures of children's behavior. The resource dilution hypothesis, for example, proposes that sibling variables are related to the cultural and material resources parents provide for their children. It is then suggested that such variations in the amount of family educational resources provided for different siblings are associated with differences in students' cognitive and affective outcomes. That is, the greater the number of children in a family the more they have to share family resources and the lower their performance on those outcomes influenced by the diluted family resources (e.g., see Downey, 1995, 2001; Guo & VanWey, 1999a, 1999b; Marjoribanks, 2001; Marjoribanks & Kwok, 1998; Marjoribanks & Mboya, 2000).

One of the most significant social-psychological models used to examine relationships between sibling variables and cognitive growth is the confluence model developed by Zajonc and Markus (1975). They propose that the cognitive development of individuals in any period is determined by influences such as the number of siblings in families, the age spacing among siblings, and whether individuals are only or last children in families (e.g., Zajonc, 1976, 2001; Markus & Zajonc, 1977; Zajonc & Bargh, 1980; Zajonc & Mullally, 1997). In an analysis by Zajonc and Bargh (1980), theoretical predictions, based on the confluence model, were made for data from six national surveys. They conclude:

> Our findings extend those of the original confluence model simulation by demonstrating that six dissimilar aggregate intellectual performance data patterns are entirely consistent with a single underlying model. The model is clearly able to fit aggregate data from widely different populations, despite differences in abilities measured, tests utilized, or age at testing ... The most pronounced differences among the data examined were those associated with

> birth order effects. Some data sets were characterized by intellectual scores that decreased with birth order, while in other data sets intellectual performance either did not vary with birth order, or had a shallow positive parabolic relationship with it. Some of these variations in birth order effects depend on the spacing between successive births which are reflected in the estimates. Another component of these variations, however, depends on the age of testing. The age of testing has a significant influence over birth order effects. (p. 360)

Zajonc (2001) suggests that "Like other features, birth order affects differential distribution of society's resources, power, and status. If there is a belief within a culture that such personal attributes as intelligence, leadership, initiative, and so forth are positively associated with birth rank, then social practices and institutions will tend to confirm and reinforce such beliefs" (p. 495). The confluence theory is, however, not without its critics. Rodgers, Cleveland, van den Oord, and Rowe (2000) examined relations among birth order, family size, and intellectual development. Data were from the National Longitudinal Survey of Youth (NLSY) in the U.S. The study concludes:

> Results of the analysis of the NLSY data support the belief that low-IQ parents make large families and are inconsistent with the belief that large families make low-IQ children. They are, further, inconsistent with the more complex predictions of the confluence model. We are not aware of any large national data source containing within-family information that has been used for an analysis of this type. Previous work on national data sources has been cross-sectional and has led to many spurious attributions of the effect of birth order on intelligence. (p. 610)

Armor (2001) analyzed the Peabody Picture Vocabulary Test (PPVT) data from the NLSY and found a different within-family result than Rodgers et al. (2000). Armor concludes:

> In my own regression analyses, birth order has significant effects on math, reading, and verbal ability after controlling for the list of family and parenting characteristics; family size has significant effects on reading and verbal ability. The effect of mother's IQ has significant effects on all three test scores, but the effect is reduced by about one half after controlling for other family characteristics. The parenting variables of cognitive stimulation and emotional support have the second strongest effects on test scores after mother's IQ. In other words, a number of family and parenting characteristics contribute significantly to a child's academic ability, and the importance of mother's IQ is diminished when these other influences are taken into account. (p. 522)

In this study, I use sibship size and birth order as measures of intermediate family contexts and as predictors of children's school-related outcomes. In the next section I consider research that has examined relations between immediate family capital contexts and students' school-related outcomes.

Immediate Family Context

In the development of a general social theory, Coleman (1988, 1990, 1997) examines the concept of social capital when he addresses the complexity of relationships among distal social contexts, immediate family settings, and individuals' behavior. He suggests that family influences are analytically separable into components such as economic, human, and social capital. Human capital provides parents with resources to create supportive proximal learning settings and it can be measured by indicators such as parents' educational attainment. Wilson and Musick (1997) indicate that "human capital is a shorthand term for those resources attached to individuals that make productive activities possible" (p. 698).

In contrast, family social capital is defined by the resources individuals may access through social ties (Frank & Yasumoto, 1998). It is the amount and quality of academically-oriented interaction between parents and children that provide children with access to parents' human capital. Coleman (1997) suggests that if the human capital possessed by parents is not complemented by strong and positive social relations in families then it is irrelevant to children's educational outcomes whether parents have a great deal, or small amount, of human capital.

Social capital may be considered to have two elements: the social relationships that allow individuals to obtain possible access to economic, human, and cultural resources; and the amount and quality of the resources. Portes (1998) indicates that through social capital, individuals can gain access to economic capital and "they can increase their cultural capital through contacts with experts or individuals of refinement (i.e. embodied cultural capital); or alternatively, they can affiliate with institutions that confer valued credentials (i.e. institutionalized cultural capital)" (p. 4). In families, the potentially valuable social capital related to children's successful schooling includes (a) the amount and quality of interest, support, encouragement and knowledge other family members have about education, and (b) the extent that such resources are transmitted to the child in interactions with family members (see Marjoribanks, 2002a).

Darling and Steinberg (1993) propose that to understand family influences "one must disentangle three different aspects of parenting: the goals toward which socialization is directed; the parenting practices used by parents to help children reach those goals; and the parenting style, or emotional climate, within which socialization occurs" (p. 488). They suggest that parenting practices are best understood as being related to

reasonably circumscribed outcomes such as various forms of academic achievement, independence, or cooperation with peers. Darling and Steinberg indicate:

> Parenting attributes influence the child's development through different processes. Parenting practices have a direct effect on the development of specific child behaviors (from table manners to academic performance) and characteristics (such as acquisition of particular values, or high self-esteem). In essence, parenting practices are the mechanisms through which parents directly help their child attain their socialization goals. (p. 493)

Teachman, Paasch, and Carver (1997) examined the effects of various measures of financial, human, and social capital on the likelihood of dropping out of school. Data were from the NELS: 88 study in the U.S. The findings indicate that "both more general measures of social capital (attending a Catholic school, family structure) and more specific measures of social capital (parent-child and parent-school interaction) are related to dropping out of high school ... social capital interacts with the financial and human capital of parents to determine school continuation" (p. 1343).

Marjoribanks (2002b) examined relationships among family background, individual characteristics, proximal learning settings, and adolescents' aspirations. The findings suggest:

> 1. The predictors combine to have large associations with adolescents' educational aspirations and small relationships with occupational aspirations.
>
> 2. There are family country-of-origin differences in the linear and curvilinear nature of the relationships among individual characteristics, proximal learning settings and adolescents' aspirations. (p. 33)

In a further investigation, Marjoribanks (2002c) investigated relationships among individual characteristics, proximal learning environments, aspirations, and the likelihood that adolescents from different social status and ethnic backgrounds decide to stay in school. Participants were 6,778 Anglo Australian, 350 Asian, and 472 European students who were in Year 9 when the study began. The analysis indicates:

1. Adolescents from middle social status backgrounds and Asian families are more likely to stay in school than are students from lower social status backgrounds and Anglo Australian families, and boys have higher odds of dropping out than do girls.

2. Adolescents' academic self-concept and achievement, perceptions of learning environments, and aspirations combine to have a large independent association with the decision to stay in school.

3. There are significant differences in the relationships among individual characteristics, proximal learning environments, and aspirations for adolescents from different ethnic groups and among those students who decide to stay in or drop out of school. (p. 368)

Kim (2002) investigated the relationship between parental involvement and children's educational achievement in Korean American families, and concludes that "parental involvement as a form of social capital mediates the relationship between parental financial and human capital and the recreated human capital of Korean-American children" (p. 536). In addition, Parcel and Dufur (2001) examined social capital at home and at school and the relation between social capital and students' achievement. They reveal that "parental and child human capital are persistent and important

determinants of improvements in reading and math achievement" (p. 899). The study indicates that stronger home environments promoted math achievement and reading achievement.

Khattab (2002) examined relationships among social capital, students' perceptions, and educational aspirations. Data were collected from 5,274 students from ninth and eleventh grades in 42 Palestinian high schools in Israel. The findings reveal that "Social capital and students' perceptions of educational success exert significant influence on students' aspirations, suggesting that family social capital plays an important role in developing minority students' aspirations, especially by acting as a channel for the transmission of parents' values, norms, knowledge and expectations to their children" (p. 85).

For the development of a theoretical framework for my study, I defined proximal family social capital by children's perceptions of their parents' aspirations for them and of their parents' involvement in their education at home and in school. Grolnick and Slowiaczek (1994) have observed that in environmental research, phenomenological experiences need to be stressed "as the child must experience the resources for them to have their influence. Such a viewpoint represents the child as an active processor of information rather than a possible recipient of inputs" (p. 238). Similarly, Wentzel (1994) concluded that adolescent's outcomes "may be more highly related to their own perceptions of parenting than to what parents think they are doing in the home" (p. 264). Furthermore, Bronfenbrenner and Ceci (1994) claim that the effects of proximal processes on outcomes are more powerful than the influences of distal social context, with proximal processes "reducing, or buffering against, environmental differences in developmental outcome" (p. 574). That is, in the

development of my theoretical model I propose that family structure and immediate family contexts mediate or, partially mediate, the relationships between family social status and students' outcomes.

Bronfenbrenner and Ceci (1994) indicate the importance of investigating how various settings, such as families and schools embedded in differing environmental contexts, might be related to measures of development. In my analysis, as well as examining family environment, I investigated proximal school learning environments, and in the following section I consider research that has examined relations between proximal school environment contexts, and students' school-related outcomes.

Proximal School Environments

In developing a network analysis of social capital, Stanton-Salazar (1997) examined the different opportunities students from various social and cultural contexts have in forming relationships with people who control institutional resources. These resources in schools include, for example, access to mentoring, availability of career-oriented material, and knowledge of the impact on school success of the grouping of selected students into academically-oriented programs. Stanton-Salazar suggests "Social relationships and networks are societal entities governed by social structure; we can regularly depend upon these entities for resources and support precisely because of their social structural properties" (p. 8). In addition, he proposes that for students from dominant social groups their social networks are potential pathways to privilege and power. Stanton-Salazar observes "Middle-class children and adolescents are systemically embedded in familial and school-based networks replete with opportunities for institutional support. Within institutional arenas such as the school, they and their parents are known to engage regularly in instrumental actions directed

toward privileged access of special services and opportunities" (p. 11). In his network analytic theory, Stanton-Salazar also suggests that children of minority groups need to acquire a bicultural network orientation that allows them to interact with school and community personnel in ways that prevent members of institutions from adopting exclusionary or discriminatory behaviors. Furthermore, the network analysis suggests that opportunities for minority group students to engage in academically-supportive interactions with teachers and other school personnel are often affected by school structures that are alienating and exclusionary.

Lau and Leung (1992) observed that the simultaneous analysis of family and school learning environments and their relative importance for children's outcomes continues to be rare. In their study, Lau and Leung (1992) examined family and school settings. Data were collected from 1,668 secondary school students in Hong Kong. The findings show that:

1. Positive parent-child relation was found to associate with higher self-concept in the general and specific domains. Some noticeable associations between school-child relation and self-concept were found. The relationship between general self-concept and relation with school was found to be weak, but that between academic and social self-concept and relation with school was stronger, especially in girls.

2. Parent- and school-child relations were related negatively with self-reported delinquency as well as objective school records of misconduct.

3. Parent-child relation tends to have a closer connection to adolescents' self development whereas school-child relation seems to have a closer linkage to academic development.

4. Relations with school tended to have differential effects on the psychosocial development of boys and girls. (p. 199)

Kim, Fisher, and Fraser (2000) examined the relationship between classroom environment and teacher interpersonal behavior in secondary science classes in Korea. Data were from 543 grade eight students in 12 different secondary schools. They conclude:

1. An examination of mean scores on learning environment scales showed that Korean science classroom environment was perceived to have lower levels of teachers support, involvement and cooperation relative to other scales of the WIHIC (What is Happening in this Class Questionnaire). Interpersonal behavior of the science teachers was shown to be directive and involved less leadership, helping/friendly, and understanding behaviors than in Australia and Singapore.

2. When simple and multiple correlation analyses were used to investigate associations of classroom environment and interpersonal teacher behavior with student's attitudinal outcome, significant positive relationships emerged for most scales of the WIHIC.

3. There were significant differences statistically and educationally between boys' and girls' perceptions of the learning environment and teacher behavior. Relative to girls, boys perceived their learning environments and their teachers' interpersonal behavior more favourably. Furthermore, the boys reported more favourable attitudes toward their science classes. (p. 18)

Fisher and Waldrip (1999) investigated relationships between teacher-student interactions, students' perceptions of their culturally sensitive learning environment, and their attitudes towards science and enquiry skills. Data were taken from 3,785 science students in 186 classes in 67 Australian secondary schools. They conclude:

> Students who were more likely to see congruence between what they learnt at school and home tended to have teachers who were leaders, friendly and helpful or strict. Teachers that displayed strong leadership were more likely to have classes where congruence between school and home learning was perceived, students deferred to others to state their ideas, preferred model learning and were competitive. With a helping and friendly teacher, students perceived equity, liked to work in collaboration, there was congruence between school and home learning, students favoured modeled learning and were more likely to challenge the teacher. (p. 94)

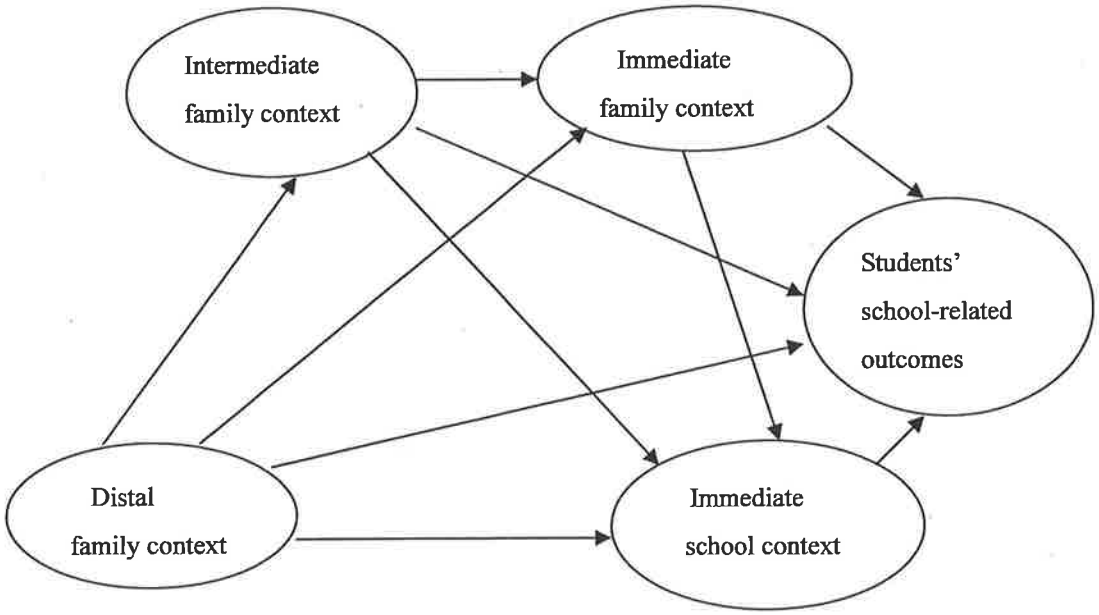
In addition, Wentzel (2002) examined the relationship between teachers' teaching styles and students' adjustments. Data were collected from 452 sixth graders from suburban middle schools. Teachers were measured with respect to their modeling of motivation and to Baumrind's parenting dimensions of control, maturity demands, democratic communication, and nurturance. Student adjustment was defined in terms of their social and academic goals and interest in class, classroom behavior, and academic performance. The study indicates "the five teaching dimensions explained significant amounts of variance in student motivation, social behavior, and achievement. High expectations (maturity demands) were a consistent positive predictor of students' goals and interests, and negative feedback (lack of nurturance) was the most consistent negative predictor of academic performance and social behavior" (p. 287). Wentzel concludes "teacher influences on students' adjustment to school also supports a conclusion that school-based interventions to promote social competence and academic excellence might profit from insights gained from work with families and parent intervention programs" (p. 299).

As I indicated earlier, the bio-ecological model suggests that intervening intermediate and immediate family and school contexts are likely to mediate the effects of distal

family contexts on students' school-related outcomes. I adopt this general model of relationships among distal family contexts, intermediate and immediate settings, and students' outcomes as a general theoretical framework for my study, and I present the framework in Figure 1.

Figure 1

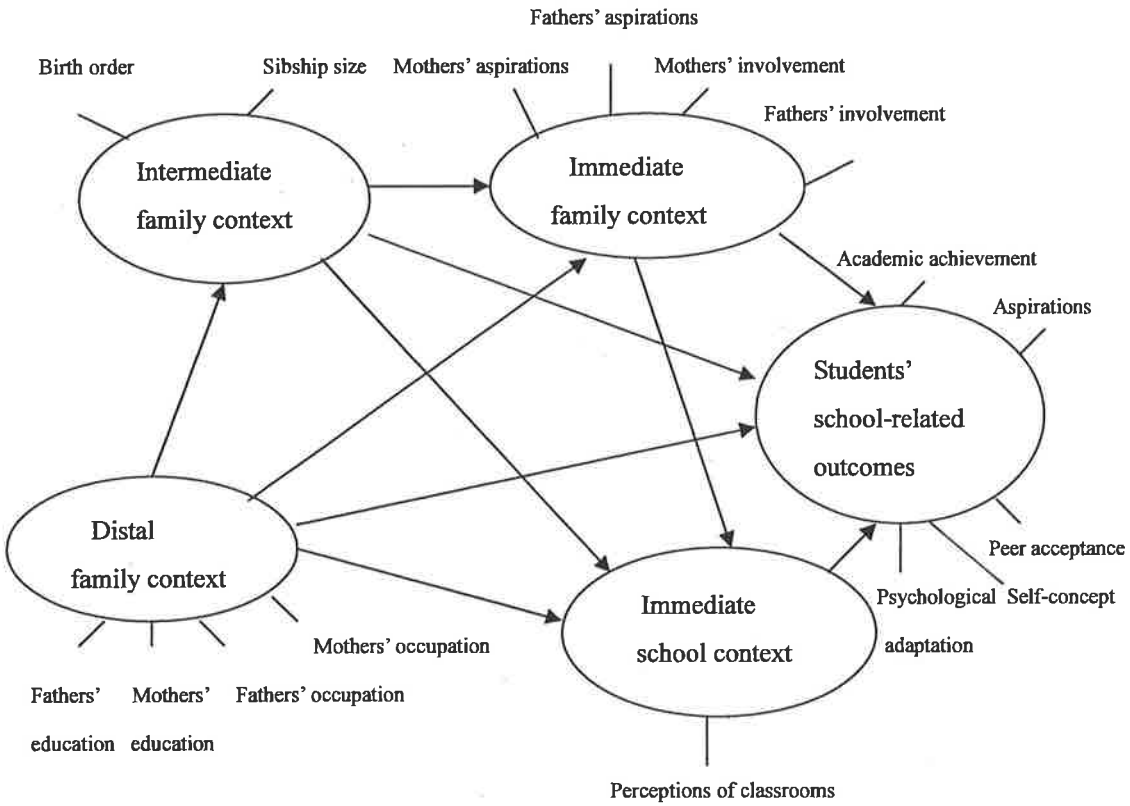
General Theoretical Framework



From the literature that I have reviewed, I define the predictor and outcome variables in the general framework with a number of indicators. Those indicator variables are presented in the Model for Analysis, that I have presented in Figure 2. In my analysis, I examine relations among the indicator variables that define the underlying constructs.

Figure 2

Model for Analysis



From the model and from the literature I have presented, I generated the following hypotheses that I examine in the study.

Hypothesis 1: Mothers are more involved in their children's education than are fathers.

Hypothesis 2: Parents of middle social status have higher aspirations and are more involved in their children's education, than are parents of lower social status.

Hypothesis 3: Measures of family structure (sibship size and birth order) are related to parents' aspirations and to their involvement in their children's education.

Hypothesis 4: Children whose parents have high aspirations and who are highly involved at home and in school, perceive their school environment more favourably.

Hypothesis 5: Children in middle social status families have higher academic achievement, stronger aspirations, and more positive affective outcomes than do children from lower social status families.

Hypothesis 6: Measures of family structure (sibship size and birth order) are related to children's academic achievement, aspirations, and affective outcomes.

Hypothesis 7: Children who perceive that their parents have high aspirations and are involved in their education and who perceive their school favourably, have higher academic achievement, stronger aspirations, and more positive affective outcomes, than do children who have less positive perceptions.

Hypothesis 8: The intervening family and school variables in the theoretical model mediate the relationships among family social status, and children's academic achievement, aspirations, and affective outcomes.

Discussion

In my analysis of the model I used quantitative and qualitative approaches. For the quantitative investigation, the data are analysed using multiple regression techniques to examine relationships among distal family contexts, intermediate family contexts, immediate family contexts, immediate school contexts, and students' school-related outcomes. In the qualitative analysis, a number of parents, students, principals, and teachers were selected for a more in-depth analysis of the impact of families on students' outcomes in school and at home. In addition, principals and teachers were interviewed to examine their attitudes about parental involvement in school and at home. But as Lieberson (1992) suggests "What we really need is an effort to integrate these methods, to take advantage of both procedures and combine their outcomes. If we are truth-seekers, then there should not be a qualitative truth and quantitative truth" (p. 3). That is, in my investigation of the theoretical framework, I attempt to integrate quantitative and qualitative approaches to the analysis of data.

In the following chapter I indicate the nature of the sample, and the measures and interviews I used, in my examination of the hypotheses.

CHAPTER 3

METHODOLOGY

1. Sample

(a) For the quantitative analyses of the hypotheses, data were collected in 2001 from 261 grade six Taiwanese students, 128 boys and 133 girls, from four primary schools in the Taichung city school district. The average age of the children was approximately 11 years. I selected the schools so that two were in the city and two in suburban locations. In addition, the intake into the schools reflected the social status background of families in the city. That is, the schools were selected to reflect the social structure of urban Taiwanese families. Each student completed two questionnaires and two academic achievement tests. The first questionnaire included schedules to assess family social status, family structure, and parents' involvement in their children's education. In the second questionnaire there were schedules to measure children's self-concept, aspirations, peer-acceptance, psychological adaptation, and perceptions of their schools' learning environments. The academic achievement tests measured Chinese language and mathematics performance. Each questionnaire took 40 minutes to complete while the academic tests each took 40 minutes to complete.

(b) For the qualitative investigation of the hypotheses, 20 parents (10 fathers and 10 mothers) and 10 students were selected from the 261 grade six families, for a more in-depth analysis of their experiences and views on parental involvement in children's schooling, as well as the impact of father versus mother involvement on students' outcomes. The parents were chosen so that they reflected the wide range of family social status differences in the schools. Each parent and student was interviewed using

the same open-ended questionnaire. In addition, four principals and eight teachers were interviewed to examine their attitudes about parental involvement in schools. For each principal and teacher, the same open-ended questionnaire which complemented the parent and student scale, was used. Generally, each interview took approximately one hour to complete.

2. Quantitative Methodology

Measures

In this section I indicate the nature of the instruments that were used to measure the different constructs in the theoretical model shown in Figure 2. Where appropriate I present the factor structure and the alpha reliability of the measures. To examine factor structures I used principal component analysis, with varimax rotation. I found, however, that for each measure the factor structures could be explained by using the general factor from the initial factoring, and that rotation provided no further understanding of the measures.

2.1 Predictor measures

(a) Family Social Status

The children were asked to indicate the occupations and educational attainment levels of their parents. Occupations were scored on an index that ranks occupations in the Taiwanese context (Yang, 2001). The occupational attainment scores ranged from 1=semi-technical and non-technical worker to 5=high rank professional and administrative personnel. Educational attainment scores ranged from 1=finished primary school to 6=postgraduate school. Each social status index loaded strongly on a general factor as shown in Table 3.1.

Table 3.1

Factor Structure for Family Social Status Scale

Item	Factor Loading
1. Indicate the highest education level of your father	.89
2. Indicate the highest education level of your mother	.86
3. Write down the name of your father's job	.85
4. Write down the name of your mother's job	.63

I defined family social status as an equally weighted composite of the four status indices and the alpha reliability coefficient for the family social status scale was .83.

(b) Family Structure

Family structure was assessed by measures of the birth order of each child in the study and the number of children in each child's family.

(c) Parents' Aspirations

Parents' aspirations were assessed by asking the children to indicate the educational aspirations they perceived their parents had for them, as well as their parents' idealistic and realistic occupational aspirations for them. Educational aspirations were scored on a scale ranging from 1=leave school as soon as possible to 6=graduate from postgraduate school. Occupational aspirations were scored using the same 5-point scale that I adopted to assess parents' occupations. The factor structure of the aspiration scores is shown in Table 3.2.

Table 3.2

Factor Structure for Parents' Aspirations Scale

Item	Factor Loading	
	Father	Mother
1. How much education does your father/mother want you to receive?	.64	.64
2. What job or occupation would your father/mother really like you to have?	.89	.86
3. What job or occupation does your father/mother really expect you to have?	.86	.87

I combined the separate aspiration scores to generate overall father and mother aspiration scores. The alpha reliability coefficient of the fathers' aspirations scale was .72, while for mothers' aspirations it was .70.

(d) Parents' Involvement at Home

I used the Marjoribanks Perceived Family Environment Scale (Marjoribanks, 1994; 2002a) to assess the children's perceptions of the support they received at home from their fathers and mothers in relation to their education. Each item was rated on a four-point scale ranging from 1=I strongly disagree to 4=I strongly agree. The factor structure of the items for fathers and mothers is presented in Table 3.3.

Table 3.3

Factor Structure for Parents' Involvement at Home Scale

Item	Factor Loading	
	Father	Mother
1. My father/mother is very interested in my schoolwork	.81	.69
2. My father/mother often helps me with my homework	.73	.61
3. My father/mother often speaks to me about what I have done at school	.78	.67
4. My father/mother often praises me for things I do	.75	.69
5. My father/mother gives me great encouragement to stay at school	.85	.80
6. My father/mother often tells me of the importance of getting a good education	.67	.54
7. My father/mother often shares out of home activities with me	.69	.63

Because each item loaded strongly on general factors, I constructed parent involvement at home scores from equally weighted composites of the seven items. The alpha reliability estimates for the fathers' involvement at home scale was .87, while for mothers' involvement at home it was .78.

(e) Parents' Involvement in School

Parents' involvement in school was measured by five items that were rated on a four-point scale ranging from 1=never to 4=always. In Table 3.4, the loadings show that each item loaded strongly on general factors for fathers' and mothers' involvement in school.

Table 3.4

Factor Structure for Parents' Involvement in School Scale

Item	Factor Loading	
	Father	Mother
1. How often has your father/mother attended open house at your school	.82	.81
2. How often has your father/mother acted as a volunteer in your school or class	.65	.69
3. How often has your father/mother attended scheduled parent-teacher conferences	.79	.81
4. How often has your father/mother attended an activity, such as an art exhibition or sporting event, at your school	.69	.76
5. How often does your father/mother attend school functions	.54	.42

The alpha reliability for the fathers' involvement in school scale consisting of the five items was .72, while for mothers' involvement in school it was .75.

(f) School Learning Environment

The Marjoribanks School Learning Environment Scale (Marjoribanks, 1994; 2002a) was used to assess the children's perceptions of their school learning contexts. In the scale, there are four contexts identified as (1) the regulative context which is defined by the nature of authority relationships in an environment, (2) the instructional context, where the child learns about the objective nature of objects and persons, and acquires skills of certain kinds, (3) the imaginative or innovative context where children are encouraged to experiment and recreate their world on their own terms, and (4) the interpersonal context were children are made aware of affective states – their own and those of others. For each context, 10 Likert-type items were selected to form the subscales. The regulative context scale which measures perceptions of the

warmth or severity of authority relationships in a school is assessed by items of the form, "In this school, most teachers seem to think that students are always up to mischief and they punish even small misbehaviors". Items used to measure perceptions of the academic orientation of a school's instructional context are of the form, "It often seems that the teachers in my school are not very interested in whether we learn or not". The imaginative school context scale is composed of statements such as, "Most of my teachers encourage us to use a lot of imagination in our schoolwork". Perceived friendliness and pastoral quality of the interpersonal context is assessed by items such as, "This is a very caring school – teachers and students care greatly about each other".

From the 40 items, seven items were deleted as they had loadings less then .40 on a general factor. The final factor structure is shown in Table 3.5. Rotated factoring provided no better structure than that provided by the general factor.

Table 3.5
Factor Structure for School Learning Environment Scale

Item	Loading
1. Most of the teachers in this school are very interested in the personal problems of students	.66
2. Generally, those in charge in this school are not very patient with the students	.54
3. Often, the teachers in my classes give the impression that they are not very interested in what they are teaching	.48
4. Most of my teachers encourage us to use a lot of imagination in our schoolwork	.50
5. This is a very caring school - teachers and students care greatly about each other	.64
6. Most of my teachers put a lot of energy and enthusiasm into their teaching	.57

7. In this school our teachers encourage us to think about exciting and often, unusual careers	.65
8. This school is very impersonal place - the teachers do not seem to want to get to know the students	.64
9. There is a very enjoyable feeling in this school - teachers do not make too many unpleasant rules that have to be obeyed	.53
10. In most of my lessons I feel that I learn quite a lot	.51
11. Outside of classes most of the teachers are very friendly and find a lot of time to talk to students	.37
12. Sometimes students in this school are punished by teachers without the students really knowing the reasons for being punished	.58
13. Most of my classes are very well planned by teachers	.58
14. Most of my teachers keep encouraging us to be very imaginative in all that we do	.67
15. Most of my teachers seem to be very interested in what they are teaching	.57
16. Teachers are always trying out new and often exciting ways of doing things in this school	.60
17. In this school, teachers are genuinely concerned with students' feelings	.67
18. Teachers, in this school, often make students take the blame for things whether they did them or not	.65
19. Most of my teachers do not seem to prepare their lessons very well	.60
20. In this school, teachers give very little encouragement to anyone who wants to do things differently	.60
21. A great thing about this school is the personal interest taken in the students by the teachers	.65
22. Our teachers often discuss with us why the school has certain rules and why they are important	.43
23. It often seems that the teachers in my school are not very interested in whether we learn or not	.51
24. Most of my teachers give students a lot of encouragement to be on their own and they allow them to do things by themselves	.65
25. In this school, most teachers seem to think that students are always up to mischief and they punish even small misbehaviors	.53
26. Teachers in this school really push us to the limits of our abilities	.65

27. If we want to do things in our own way in this school, most of the teachers help us and give us great encouragement	.66
28. Most of my teachers do not seem to care much about how the students feel about things in the school	.64
29. If students disagree with school rules then it is possible to discuss the disagreements with teachers and possibly have the rules changed	.44
30. Most of my teachers give homework that is really useful in helping me to understand my schoolwork	.64
31. This school is full of teachers with very imaginative and different ways of thinking about things - it is a very exciting place to be	.60
32. As well as being concerned about regular schoolwork, most of the teachers in this school are very concerned about students' personal problems	.69
33. Most of my teachers know their subject material very well and they are able to present it in an interesting manner	.60

A school learning environment score for each student was obtained by adding the scores on the 33 items, and the alpha reliability of the factor scale was .94.

2.2 Outcome Measures

(a) Self-concept

Items from a self-concept scale constructed by Marsh and Yeung (1997a) were adapted for the present study. After using principal component analysis, a 13-item scale was constructed to measure children's self-concept, and the loadings for each item are shown in Table 3.6.

Table 3.6
Factor Structure for the Self-Concept Scale

Item	Factor Loading
1. Mathematics is one of my best subjects	.58
2. I always do well in mathematics	.67

3. I get good marks in mathematics	.64
4. I do badly in mathematics tests	.53
5. I learn things quickly in Chinese classes	.44
6. I get good marks in Chinese	.44
7. I like my family very much	.52
8. I like my school very much	.54
9. It is easy for me to make friends	.45
10. I feel my family does not care for me	.41
11. My family loves me	.56
12. I am well liked by others of my age	.65
13. I like the way I look	.49

From the 13 items, a self-concept score for each child was generated and the alpha reliability of the scale was .79.

(b) Peer-Acceptance

Items from a peer-acceptance scale constructed by Hung (1995) were used in the present study, and after using principal component analysis a 14-item scale was constructed. The loadings for each item are shown in Table 3.7.

Table 3.7
Factor Structure for the Peer-Acceptance Scale

Item	Factor Loading
1. I often cry	.44
2. I would like to change the way I look	.51
3. I get hurt easily when someone shouts at me	.44
4. I am not happy with my appearance	.56
5. I often play alone	.49
6. I often feel my classmates scorn and bully me	.68
7. I do not know how to play with my classmates	.70
8. I do not like my close friends to play with the other classmates	.56
9. I often cannot understand what my classmates are talking about	.62

10. I do not have any good friends	.61
11. I do not know how to praise my classmates although I feel they are good	.56
12. My classmates do not invite me to attend their activities	.61
13. I am infuriated when my classmates use nasty words or are unpleasant to me	.52
14. Although I often play with my classmates, I still feel lonely	.58

The alpha reliability of the peer-acceptance scale was .83.

(c) Psychological Adaptation

Items from a psychological adaptation scale constructed by Hung (1995) were used in the present study. After using principal component analysis, a nine-item scale was constructed to measure children's psychological adaptation, and the loadings for each item are shown in Table 3.8

Table 3.8
Factor Structure for the Psychological Adaptation Scale

Item	Factor Loading
1. I am often sick	.61
2. I feel I am healthy	.59
3. I feel I look well	.50
4. I feel my figure is excellent	.43
5. I feel I lack energy	.60
6. I feel I am too lazy to do anything	.47
7. I often feel I have a headache	.63
8. I often feel dizzy	.51
9. I often feel I have a stomach ache	.63

The alpha reliability of the psychological adaptation scale was .69.

(d) Children's Aspirations

The children's educational and occupational aspirations were assessed by asking the following questions:

1. What level of education do you **expect** to achieve?
2. If at all possible what job or occupation or type of work would you **really like** to have when you are about 25 years old?
3. Being realistic, what job do you think you will **really have** when you are about 25 years old?

Educational aspirations were scored on a six-point scale ranging from 1=leave school as soon as possible to 6=graduate from postgraduate school. Occupational aspirations were scored using the same index that I adopted to assess parents' occupations and parents' occupational aspirations (Yang, 2001).

(e) Academic achievement

The academic achievement tests that I used are from The Secondary School Scholastic Aptitude Test published by the National Normal University (2000). The Secondary School Scholastic Aptitude Test includes Verbal Reasoning and Mathematics Reasoning measures and they are assessed at five different levels. In this study I adopted the Verbal Reasoning Test at level 1 to assess Chinese language academic achievement. The test comprises 60 questions and lasts 40 minutes. It has an alpha reliability of .87. In addition, I adopted the Mathematics Reasoning Test at level 1 to assess mathematics academic achievement. The test includes 35 questions and takes 40 minutes to complete. The alpha reliability of the Mathematics Test is .84.

The factor structures and reliabilities that have been reported suggest that a set of acceptable measures had been constructed to test the hypotheses of the study. I use these measures in the following Chapter to investigate the hypotheses that were generated in Chapter 2, and to test the overall theoretical model that was presented in Figure 2. In the Appendix, I present the Chinese and English versions of the full scales that were completed by the children.

3. Qualitative methodology

Studies by Smolicz (1999) and Marjoribanks (2002a) have indicated the value of seeking to understand the point of view of actual participants in the phenomena being investigated. In this study, the perceptions of a small number of individuals from each of the key groups of respondents were explored through in-depth interviews. The aim was to identify responses that were positive about parental involvement at home and in school and those that were negative, and to understand the underlying reasons for these attitudes. That is, the qualitative part of this study aimed to tap into the consciousness of those participants who were interviewed, in order to add a more sensitive understanding to the quantitative analyses.

The respondents interviewed were selected by the researcher, on the basis of careful reading of the questionnaire responses. Those that appeared to represent interesting cases meriting further investigation were approached and asked if they would be prepared to be interviewed. Principals and teachers who were approached were very willing to be involved. Parents were more reluctant, but eventually it was possible to identify ten couples, together with their children, who were interesting cases and prepared to be interviewed. One interview schedule for parents and children was developed and another, from the point of view of the school, was constructed for

principals and teachers.

For such analyses, interview data can be examined in relation to concrete and cultural facts. Smolicz (1999) indicates that concrete facts are "social and economic facts, which are abstracted by the respondents directly from their own daily lives and which are conventionally described as strictly 'objective'" (p. 300). In contrast, cultural facts are "statements and expressions which have their origins in the attitudes, tendencies and aspirations of the respondents and directly reveal the subjective aspects of the lives of the individuals concerned" (p. 300). Since "concrete fact" data about the parents' educational and occupational background had already been gathered through the questionnaire, the interviews focused on open-ended questions about the nature and extent of parental involvement in their children's learning at school and home, and their perceptions of school environments in the past and currently. The parents were also asked to comment on any differences they noticed between firstborn and laterborn children, between girls and boys, and any differences in fathers' and mothers' involvement in children's learning. The school interview schedule for principals and teachers focused on their views of current levels of parental involvement and their assessment of how important and useful this was for their children. Their opinions were also sought on differences between firstborn and laterborn children, boys and girls, and fathers' and mothers' involvement in children's learning.

All the interviews were taped and subsequently transcribed and translated into English for the purposes of analysis. The responses to each question were first summarized into tables for each group of respondents, from which it was possible to clarify responses that were positive and negative towards parental involvement.

The interviews schedules were as follows:

For parents

1. Could you please tell me how you are involved in your child's school?
2. How important do you find this involvement?
3. What activities do you most like being involved in at school?
4. What activities do you find most difficult being involved in at your child's school?
5. Why do you take the trouble to be involved in your child's education? Or why are you not more involved in your child's education?
6. From your experience, what differences are there in learning at school between boys and girls?
7. What differences in learning at school do you notice between first and laterborn children in the family? Why?
8. Do you think some parents are more likely to decide to be involved in school activities if their child is a boy? Why?
9. Do you think that some parents are more likely to decide to be involved in school activities if they relate to their first child? Why?
10. How do you support your child's school learning at home?
11. How useful do you think it is when you support your child's learning at home?
12. What learning activities do you most like doing at home?
13. What learning activities do you find most difficult to be involved in with your child at home?
14. What educational level would you like your child to reach?
15. How important do you think education is for your child's future?
16. What occupation would you like your child to have at 25 years of age?
17. How important do you think having a certain occupation is for your child's future?
18. What do you think is most important for your child: academic achievement in say Chinese language, mathematics, and natural science achievement, or having positive affective orientations in characteristics such as self-concept, peer-acceptance, and psychological adaptation?

19. Why do you think that? (in relation to item 18).
20. What are the most positive aspects of the learning environment in your child's school?
21. How important do you think your child's school learning environment is for your child?

For children

1. Could you please tell me how your parents are involved in your school?
2. How important do you find this?
3. What activities do you like your parents to be involved in at your school?
4. What activities do you not like your parents to be involved in at your school?
5. Why do you think your parents take the trouble to be involved in your education? Or why are your parents not more involved in your education?
6. From your experience, what differences are there in learning at school between boys and girls?
7. What differences in learning at school do you notice between first and laterborn children in families?
8. Do you think that some parents are more likely to decide to be involved in school activities if their child is a boy? Why?
9. Do you think that some parents are more likely to decide to be involved in school activities if they relate to their first child? Why?
10. How do your parents support your school learning at home?
11. How useful do you think it is when your parents support your learning at home?
12. What learning activities do you most like your parents to help you with at home?
13. What learning activities do you not like your parents to help you with at home?
14. What educational level would you like to reach?
15. How important do you think this is for your future? (in relation to item 14).
16. What occupation would you like to have at 25 years of age?
17. How important do you think this is for your future? (in relation to item 16).

18. What do you think is most important for you: academic achievement in say Chinese language, mathematics, and natural science achievement, or having positive affective orientations in characteristics such as self-concept, peer-acceptance, and psychological adaptation?
19. Why do you think that? (in relation to item 18).
20. What are the most positive aspects of the learning environment of your school?
21. How important do you think your school learning environment is for you?

For teachers

1. Could you please tell me how parents are involved in your school?
2. How important do you find this?
3. What activities do you like parents to be involved in at your school or in your classroom?
4. What activities do you find most difficult for parents to be involved in at your school or in your classroom?
5. Why do you think some parents are not more involved in their child's education? Or why do you think parents like to be involved in their child's education?
6. Why do you think some teachers do not like parents to be involved in their children's classroom?
7. How supportive is the principal of parents being involved in schooling?
8. From your experience, what differences are there in learning at school between boys and girls?
9. What differences in learning at school do you notice between firstborn and laterborn children in families?
10. Do you think that some parents are more likely to decide to be involved in school activities if their child is a boy?
11. Do you think that some parents are more likely to decide to be involved in school activities if they relate to their first child?
12. How do you think parents support their child's school learning at home?
13. How useful do you think it is when parents support their child's learning at home?

14. What learning activities do you think parents are best at doing at home?
15. What learning activities do you think are most difficult for parents with their child at home?
16. What do you think is most important for children: academic achievement in say Chinese language, mathematics, and natural science achievement, or having positive affective orientations in characteristics such as self-concept, peer-acceptance, and psychological adaptation?
17. Why do you think that? (in relation to item 16).
18. What do you think are the most positive aspects of the learning environment of your school?
19. How important do you think these are for your students?

For principals

1. Could you please tell me how parents are involved in your school?
2. How important do you find this?
3. What activities do you like parents to be involved in at school?
4. What activities do you find most difficult for parents to be involved in at school?
5. Why do you think parents are not more involved in their child's education? Or why do you think parents like to be involved in their child's education?
6. How supportive are your teachers in relation to parents being involved in schooling?
7. From your experience, what differences are there in learning at school between boys and girls?
8. What differences in learning at school do you notice between firstborn and laterborn children in families?
9. Do you think some parents are more likely to decide to be involved in school activities if their child is a boy?
10. Do you think some parents are more likely to decide to be involved in school activities if they relate to their first child?
11. How do you think parents best support their child's school learning at home?
12. How useful do you think it is when parents support their child's learning at home?

13. What learning activities do you think parents most like doing at home?
14. What learning activities do you find are most difficult for parents to be involved in with their child at home?
15. What do you think is most important for children: academic achievement in say Chinese language, mathematics, and natural science achievement, or having positive affective orientations in characteristics such as self-concept, peer-acceptance, and psychological adaptation?
16. Why do you think that? (in relation to item 15).
17. What do you think are the most positive aspects of the learning environment of your school?
18. How important do you think these are for your students?

That is, the study adopted both quantitative and qualitative approaches to the analysis of the relationships between parental involvement in children's schooling, and the children's school-related outcomes. In the next chapter, I present the results from the quantitative investigation of the hypotheses of the study.

CHAPTER 4

RESULTS

QUANTITATIVE FINDINGS

In the first analysis I examine possible differences in mean scores between boys and girls on each of the predictor and outcome measures. Then in the following analyses, I investigate the hypotheses of the study.

(a) Differences in Mean Scores

In Table 4.1, the mean scores for boys and girls on each measure are presented with the *t*–values associated with the differences in scores. The findings show that there were no significant gender differences on any of the measures.

Table 4.1
Mean Scores on Predictor and Outcome Measures for Boys and Girls

Variable	Mean Scores		*t*-value
	boys (*n*=128)	girls (*n*=133)	
Family status	12.02	12.09	.14
Birth order	1.80	1.68	1.12
Sibship size	1.34	1.53	1.90
Fathers' involvement at home	21.36	21.08	.46
Mothers' involvement at home	22.57	22.93	.82
Fathers' aspirations	12.45	12.29	.48
Mothers' aspirations	12.71	12.49	.71
Fathers' involvement in school	8.63	8.72	.30
Mothers' involvement in school	10.16	10.79	1.57
School environment	114.59	115.46	.54

Chinese language	102.07	105.53	1.68
Mathematics	95.97	94.01	1.11
Self-concept	41.3	40.93	.54
Psychological adaptation	26.78	26.05	1.25
Peer-acceptance	43.38	44.20	.96
Educational aspirations	5.10	5.23	1.01
Occupational aspirations	3.20	3.23	.20

(b) Tests of the Hypotheses

Hypothesis 1: Mothers are more involved in their children's education than are fathers.

The results in Table 4.1 revealed that the mean scores of mothers' involvement at home, involvement in school, and aspirations were higher than those of fathers. I examined the significance of these differences in mean scores between mothers and fathers for boys and girls, to examine the first hypothesis.

In Table 4.2, the findings show that for both boys and girls, mothers had significantly higher involvement at home and involvement in school mean scores than did fathers. The differences in aspiration scores were not significant. That is, mothers were perceived by their daughters and sons to be more actively involved than their fathers in their education at home and in school. That is, the findings provided partial support for the first hypothesis.

Table 4.2

Differences in Mean Scores between Mothers and Fathers for Boys and Girls

Family Variable	Mean	Difference	*t*-value
Boys (*n*=128)			
Fathers' involvement in school	8.63	1.53***	7.21
Mothers' involvement in school	10.16		
Fathers' involvement at home	21.36	1.21***	3.44
Mothers' involvement at home	22.57		
Fathers' aspirations	12.45	$0.26^{n.s.}$	1.88
Mothers' aspirations	12.71		
Girls (*n*=133)			
Fathers' involvement in school	8.72	2.07***	10.24
Mothers' involvement in school	10.79		
Fathers' involvement at home	21.08	1.86***	5.48
Mothers' involvement at home	22.93		
Fathers' aspirations	12.29	$0.20^{n.s.}$	1.65
Fathers' aspirations	12.49		

***p<.001

Hypothesis 2: Parents of middle social status have higher aspirations and are more involved in their children's education, than are parents of lower social status.

Hypothesis 3: Measures of family structure (sibship size and birth order) are related to parents' aspirations and to their involvement in their children's education.

In Table 4.3 the findings show that for boys and girls, family social status had large zero-order correlations with fathers' and mothers' aspirations. In addition, family

social status had medium associations with parents' involvement in school, while family social status had a small significant association with mothers' involvement at home for their sons. The results also revealed that birth order had medium zero-order correlations with fathers' and mothers' aspirations for their sons, while sibship size had a medium significant association with fathers' involvement for their sons in school. In addition, birth order and sibship size had small significant associations with mothers' involvement for their daughters in school. In general, the findings indicated that while family social status was related to the family environment scores, there were few significant associations between family structure and the other family measures. That is, the findings provided general support for hypothesis 2. In contrast, except for parents' aspirations for boys and mothers' involvement in school for girls, there was little support for the hypothesis linking family structure and the family environment variables.

Table 4.3

Relationships Between Family Social Status and Family Structure with Parents' Aspirations and Involvement in Their Children's Education

	Fathers' aspirations	Mothers' aspirations	Fathers' involvement at home	Mothers' involvement at home	Fathers' involvement in school	Mothers' involvement in school
			Boys (n=128)			
Family status	.53***	.43***	.14	.21*	.35***	.33***
Birth order	-.38***	-.31***	-.15	-.13	-.12	-.08
Sibship size	-.43***	-.40***	-.06	-.11	-.20*	-.15

	Girls (n=133)					
Family status	.52***	.47***	.13	.12	.26**	.32***
Birth order	-.12	-.09	-.09	.06	-.17	-.22**
Sibship size	.02	.01	.03	.03	-.14	-.18*

*p<.05 **p<.01 ***p<.001

Note: In the analyses in this chapter, the size of correlations are referred to as small, medium or large in relation to the effect sizes proposed by Cohen (1992).

Hypothesis 4: Children whose parents have high aspirations and who are highly involved at home and in school, perceive their school environment more favourably.

The zero-order correlations in Table 4.4 show that for boys, perceptions of fathers' and mothers' aspirations and mothers' involvement at home had medium significant associations with their perceptions of school learning environments. In addition, mothers' aspirations and parents' involvement at home had medium significant relationships with girls' school learning environments. Children's perceptions of their parents' involvement in school were not, however, related to their perceptions of school learning environments. That is, the findings show that hypothesis 4 was only partly supported.

Table 4.4

Relationships Between Family Influences and Children's Perceptions of Their School Learning Environment

Family influences	School environment
Boys (n=128)	
Fathers' aspirations	.20*
Mothers' aspirations	.27**
Fathers' involvement at home	.16
Mothers' involvement at home	.34***
Fathers' involvement in school	.04
Mothers' involvement in school	.08
Girls (n=133)	
Fathers' aspirations	.10
Mothers' aspirations	.20*
Fathers' involvement at home	.34***
Mothers' involvement at home	.32***
Fathers' involvement in school	.14
Mothers' involvement in school	.10

*p<.05 **p<.01 ***p<.001

Hypothesis 5: Children in middle social status families have higher academic achievement, stronger aspirations, and more positive affective outcomes than do children from lower social status families.

Hypothesis 6: Measures of family structure (sibship size and birth order) are related to children's academic achievement, aspirations, and to their affective outcomes.

Hypothesis 7: Children who perceive that their parents have high aspirations and are involved in their education and who perceive their school favourably, have higher academic achievement, stronger aspirations and more positive affective outcomes, than do children who have less positive perceptions.

In the following analyses, I examine the hypotheses initially for boys. The findings in Table 4.5 show that boys in middle social status families had higher Chinese language and mathematics achievement, more positive self-concept, and higher aspirations, than did other boys. Social status was not related to peer-acceptance and psychological adaptation. Sibship size and birth order had small to medium significant associations with Chinese language achievement, mathematics achievement, self-concept, and educational and occupational aspirations, but was not related to peer-acceptance and psychological adaptation. That is, firstborn and boys from small families had higher academic achievement, more positive self-concept, and higher aspirations than did other boys.

Fathers' and mothers' involvement at home had medium associations with self-concept, and small associations with educational aspirations, while mothers' involvement at home was related to occupational aspirations. Fathers' and mothers' involvement at home and in school had small to medium significant associations with Chinese language, mathematics achievement, self-concept, and educational and occupational aspirations.

In addition, fathers' and mothers' aspirations had significant medium to large associations with boys' Chinese language and mathematics achievement, self-concept, peer-acceptance, psychological adaptation (not for fathers' aspirations), and

educational and occupational aspirations. The boys' perceptions of their school learning environments had medium to large associations with self-concept, peer-acceptance, psychological adaptation, and educational and occupational aspirations. That is, boys' perceptions of their school learning environments were related to their affective outcomes but not to the academic achievement scores. Except for the peer-acceptance and psychological adaptation measures, the zero-order correlations provided initial tentative support for hypotheses 5, 6, and 7, in relation to boys.

Table 4.5

Relationships Between Predictor Variables and Outcomes (Boys, n=128)

	Outcomes						
Predictor variables	Chinese	Mathematics	Self-concept	Peer-acceptance	Psychological-adaptation	Educational aspirations	Occupational aspirations
Family status	.48***	.48***	.28***	.09	-.03	.39***	.43***
Sibship size	-.20**	-.26**	-.18*	.03	-.04	-.34***	-.25**
Birth order	-.23**	-.22*	-.30***	-.15	-.11	-.32***	-.25**
Fathers' involvement at home	.25**	.24**	.36***	.06	.14	.20*	.13
Mothers' involvement at home	.29***	.28***	.45***	.10	.12	.23**	.32***
Fathers' involvement in school	.28***	.30***	.22*	-.04	-.07	.19*	.23**
Mothers' involvement in school	.35***	.28***	.26**	.07	-.002	.23**	.26**
Fathers' aspirations	.44***	.43***	.44**	.19*	.09	.67***	.58***
Mothers' aspirations	.37***	.38***	.44***	.18*	.23**	.68***	.49***
School environment	.12	.05	.48***	.32***	.31***	.30***	.30***

*p<.05 **p<.01 ***p<.001

In Table 4.6 the results are presented for the girls. They revealed that girls in middle social status families had higher academic achievement, more positive peer-acceptance, and higher aspirations than did girls from lower social status families. Birth order had a medium significant association with Chinese language and a small relation with mathematics achievement. Firstborn girls had higher academic achievement than did laterborn girls. Sibship size was not associated with any of the outcome variables. Parents' involvement at home had small to medium significant relations with academic achievement and affective outcomes. In addition, mothers' involvement at home had small significant relationships with girls' educational aspirations while fathers' involvement at home was associated with girls' occupational aspirations. Girls who perceived that their parents had higher involvement in school, had higher Chinese language and mathematics achievement scores (except for the association between fathers' involvement in school and mathematics performance), and more positive affective outcomes. Mothers' involvement in school had a small significant relation with girls' occupational aspirations. Furthermore, perceived parents' aspirations had medium to large significant associations with each of the outcome measures, except for the relation with girls' psychological adaptation. Girls' perceptions of their school learning environments were related to their affective outcomes and occupational aspirations but not to the academic achievement and educational aspiration scores. Except for the relations involving sibship size, the findings indicated that the environment variables, had a set of medium significant associations with the outcome variables. That is, the analyses provided tentative support for hypotheses 5, 6, and 7, in relation to girls.

Generally, the findings in Tables 4.3 to 4.6 provided partial support for the hypotheses of the study. Parents of middle social status were more involved in school than were

parents of lower social status background. Moreover, firstborn children had higher academic achievement than did laterborn children. Boys in small families had higher aspirations and more positive self-concept than did boys in larger families. In addition, the perceptions of school learning environments had medium associations with parents' involvement at home but were not related to parents' involvement in school. Parents who were perceived to have stronger involvement in school and who had higher aspirations, had children with higher academic achievement, stronger educational and occupational aspirations, and more positive self-concept. In addition, the findings show that there were few significant differences between boys and girls on the mean scores of the measures, while mothers appeared to be more involved than fathers in their children's education. The findings presented so for have examined only bivariate relationships and have not explored the complexity of the theoretical model constructed in Chapter 2. In the following section, I examine relationships among distal family contexts, sibling structure, proximal learning settings, and the students' cognitive, aspirational, and affective outcomes.

Table 4.6

Relationships Between Predictor Variables and Outcomes (Girls, n=133)

	Outcomes						
Predictor variables	Chinese	Mathematics	Self-concept	Peer-acceptance	Psychological-adaptation	Educational aspirations	Occupational aspirations
Family status	.41***	.36***	.10	.20*	.15	.36***	.31***
Sibship size	-.10	.003	-.01	-.07	.13	-.01	-.02
Birth order	-.33***	-.21*	-.09	-.09	.02	-.10	-.15
Fathers' involvement at home	.24**	.26**	.49***	.18*	.41***	-.05	.22*
Mothers' involvement at home	.28***	.28***	.53***	.31***	.40***	.19*	.16
Fathers' involvement in school	.24**	.13	.28***	.28***	.36***	.14	.11
Mothers' involvement in school	.44***	.26**	.29***	.29***	.32***	.13	.19*
Fathers' aspirations	.45***	.34***	.22*	.27**	.11	.51***	.57***
Mothers' aspirations	.41***	.38***	.28***	.32***	.08	.42***	.62***
School environment	.01	.09	.47***	.34***	.22**	.08	.17*

*p<.05 **p<.01 ***p<.001

(c) A Test of the Theoretical Mediation Model

Hypothesis 8: The intervening family and school variables in the theoretical model mediate the relationships among family social status and children's academic achievement, aspirations, and affective outcomes.

To test the overall theoretical model of the study I used multistage regression analysis. In the analysis, the variables from the theoretical model were added to multistage regression equations in four stages. First, relations between family background and outcomes were examined. In the second stage, the regression models included the measures of family structure. In the third stage the more refined family measures were included. The full regression models, in the fourth stage, included the measure of school learning environment.

In such regression analyses, two equally important questions are asked. First, whether the increment in explained variability or the prediction of an outcome associated with adding further variables is significant or important. Second, whether the regression coefficients that describe relationships between predictors and outcomes differ between regression models. That is, are regression relationships stable across specifications or do they differ when later variables are added to successive models (Clogg, Petkova, & Haritou, 1995).

The appropriate test of attenuation between models examines differences in unstandardized weights with adjustments being made to standard errors (Clogg *et al.*, 1995). Therefore, in the present analysis unstandardized regression coefficients are presented to show possible mediation effects. In addition, I have presented the standardized on beta weights to show the relative strength of each measure, in each

regression equation.

If mediation occurred in the analyses then the relationship between family social status and a particular outcome would be reduced when associations involving the proposed intervening variables and outcome measure are taken into account. As Baron and Kenny (1986) indicate, variables function as mediators to the extent that they account for the relationships between predictors and outcomes. If full mediation occurred then the relationships between family social status and each outcome would become non-significant after controlling for the associations between the intervening variables and outcomes. However, if the relationships were reduced, but remained significant, then partial mediation would be demonstrated.

When I tested for possible multicollinearity among the measures, I found that the measures of involvement at home, involvement in school, and aspirations, for mothers and fathers, each correlated strongly. As a result, I combined the mother and father measures on each of these variables and in the analyses included measures that were labeled as parents' involvement at home, parents' involvement in school, and parents' aspirations. Because the earlier analyses had shown no gender-related differences in the outcomes and had indicated a similarity in the patterns of zero-order correlations among the predictors and outcomes, I undertook the regressions investigations using only the total sample. In addition, the analysis of boys and girls would have involved relatively small sample sizes for the use of multivariate regression approaches. It may be considered a limitation of the investigation that the regression analyses were conducted only for the total sample. In addition, ordinary least squares regression was used as the restricted sample size mitigated against the use of structural equation modeling.

(i) Chinese language achievement

In Table 4.7, the regression models show the relationships for Chinese language achievement. In Model 1, the results indicated that the Chinese language achievement of students from middle social status families were higher than those of students from lower social status families. The regression weights in Model 2 showed that birth order had significant associations with Chinese language scores. That is, the firstborn child had higher Chinese language scores than did laterborn children, after taking into account family social status. In Model 3, the measures of parents' involvement at home, parents' involvement in school, and parents' aspirations were added and they combined to be related to a medium amount of extra variance in Chinese language scores (extra $R^2 = 11.68\%$). In Model 4, the school environment measure was not related to Chinese language achievement.

The final results revealed that the associations among family social status, birth order, parents' involvement at home and in school, and parents' aspirations with Chinese language scores were all significant. The final R of .60, which is an index of the goodness-of-fit of the final regression model, demonstrated that for Chinese language there was an acceptable overall fit of the model to the data. In addition, the reduction of the b-weight from 1.92 to 1.01 indicated that the intervening variables mediated partially, the relationships between family social status and Chinese language scores. The beta weights in the final model showed that after taking into account the other predictors, parents' involvement in school and parents' aspirations had the strongest associations with differences in children's Chinese language achievement.

Table 4.7

Regression Coefficients for Relationships Among Predictor Variables and Chinese Language Achievement

	Chinese Language							
	Model 1		Model 2		Model 3		Model 4	
Predictor Variables	*b*	*β*	*b*	*β*	*b*	*β*	*b*	*β*
Family Status	1.92***	.44	1.75***	.40	.95***	.22	1.01***	.24
Birth Order			-3.80***	-.21	-3.34**	-.19	-3.41**	-.19
Sibship Size			1.21	.06	2.20	.11	2.22	.11
Parents' Involvement at home					.39***	.18	.45***	.20
Parents' Involvement in school					.88***	.28	.86***	.28
Parents' Aspirations					.94***	.27	.89***	.26
School Environment							.06	.05
R	.44***		.48***		.59***		.60***	
R^2%	19.71		23.13		34.81		35.40	
Effect size	.25[b]		.30[b]		.53[c]		.55[c]	
Extra R^2%			3.42		11.68		0.59	

Effect size: [a]small, [b]medium, [c]large

*p<.05 **p<.01 ***p<.001

(ii) Mathematics achievement

The regression models in Table 4.8 show the relationships for mathematics achievement. In Model 1, the results indicated that children from middle social status families had higher mathematics scores than did children from lower social status families. In Model 2, the findings showed that family structure was not related to the mathematics scores after taking into account the family social status differences. The results in Model 3 indicated that the addition of parents' involvement at home, parents' involvement in school, and parents' aspirations made a medium independent

contribution to the variation in mathematics achievement (extra R^2 = 7.97%). In Model 4, the school measure was not related to mathematics scores.

Table 4.8
Regression Coefficients for Relationships Among Predictor Variables and Mathematics Achievement

	Mathematics achievement							
	Model 1		Model 2		Model 3		Model 4	
Predictor Variables	*b*	β	*b*	β	*b*	β	*b*	β
Family Status	1.56***	.42	1.46***	.39	.90***	.24	.93***	.25
Birth Order			-1.72	-.11	-1.42	-.09	-1.39	-.09
Sibship Size			.06	.003	.75	.04	.64	.04
Parents' Involvement at home					.33**	.18	.39***	.21
Parents' Involvement in school					.44**	.16	.45**	.17
Parents' Aspirations					.81***	.27	.78***	.26
School Environment							.08	.07
R	.42***		.43***		.52***		.53***	
R^2%	17.64		18.75		26.72		27.67	
Effect Size	.15[b]		.23[b]		.36[c]		.38[c]	
Extra R^2%			1.11		7.97		0.95	

Effect size: [a]small, [b]medium, [c]large
*p<.05 **p<.01 ***p<.001

In general, the findings revealed that family social status, parents' involvement at home, parents' involvement in school, and parents' aspirations combined to have a large relationship with mathematics achievement. The final *R* of .53 demonstrated that for mathematics achievement there was an acceptable overall fit of the model to the data. In addition, the reduction of the *b*-weight from 1.56 to .93 indicated that the

intervening variables mediated partially, the relationships between family social status and mathematics achievement. The beta weights in the final model showed that family social status and parents' aspirations had the largest associations with differences in children's mathematics achievement.

(iii) Educational aspirations

The regression equations in Model 4.9 show the relationships for children's educational aspirations. In Model 1, the findings indicated that family social status had a medium significant association with educational aspirations. In Model 2, the results showed that after taking into account social status differences, birth order and sibship size were not related to the educational aspiration scores. In addition, the unstandardized regression coefficients in Model 3 revealed that parents' aspirations had a large significant association with children's educational aspirations. In model 4, the results showed that the addition of the perceptions of school environment made a small independent contribution to the variance in students' educational aspirations (extra $R^2 = 1.00\%$).

In the final model, the beta weights indicated that perceived parents' aspirations had large significant associations with children's educational aspirations. The final R of .63 demonstrated that for children's educational aspirations there was an acceptable overall fit of the final model to the data. Furthermore, the reduction of the b-weight from .10 to .02 indicated that perceived parents' aspirations mediated the relationships between family social status and children's educational aspirations.

Table 4.9

Regression Coefficients for Relationships Among Predictor Variables and Educational Aspirations

	Educational Aspirations							
	Model 1		Model 2		Model 3		Model 4	
Predictor Variables	*b*	*β*	*b*	*β*	*b*	*β*	*b*	*β*
Family Status	.10***	.37	.09***	.32	.02	.06	.02	.08
Birth Order			-.14	-.12	-.08	-.07	-.07	-.07
Sibship Size			-.06	-.05	-.007	-.005	-.02	-.01
Parents' Involvement at home					.0002	.002	-.004	-.03
Parents' Involvement in school					.004	.02	.004	.02
Parents' Aspirations					.12***	.56***	.12***	.54
School Environment							.009*	.11
R	.37***		.40***		.62***		.63***	
R^2%	13.46		15.60		38.56		39.56	
Effect size	.16[b]		.18[b]		.63[c]		.66[c]	
Extra R^2%			2.14		2.96		1.00	

Effect size: [a]small, [b]medium, [c]large

*p<.05 **p<.01 ***p<.001

(iv) Occupational aspirations

The regression models in Table 4.10 show the relationships for children's occupational aspirations. The results in Model 1 indicated that the children from middle social status families had higher occupational aspirations than did children from lower social status families. In Model 2, the findings showed that after taking into account social status differences, family structure had no association with the children's occupational aspirations. The results in Model 3 revealed that perceived parents' aspirations had strong associations with children's occupational aspirations. In Model 4, the perceptions of school environments had small significant relations with children's

occupational aspirations. The regression weights in the final model show that parents' aspirations and perceptions of school learning environments had significant relationships with children's occupational aspirations.

Table 4.10
Regression Coefficients for Relationships Among Predictor Variables and Occupational Aspirations

	Occupational Aspirations							
	Model 1		Model 2		Model 3		Model 4	
Predictor Variables	*b*	*β*	*b*	*β*	*b*	*β*	*b*	*β*
Family Status	.12***	.37	.11***	.34	.024	.08	.04	.11
Birth Order			-.15	-.11	-.08	-.06	-.07	.05
Sibship Size			-.01	-.01	.04	.03	.03	.02
Parents' Involvement at home					.01	.07	.01	.04
Parents' Involvement in school					.007	.03	.01	.03
Parents' Aspirations					.13***	.52***	.12***	.48
School Environment							.01*	.13
R	.37***		.39***		.60***		.61***	
R^2%	13.61		14.90		36.12		37.70	
Effect size	.16[b]		.18[b]		.57[c]		.59[c]	
Extra R^2%			1.29		21.22		1.58	

Effect size: [a]small, [b]medium, [c]large
*p<.05 **p<.01 ***p<.001

The final *R* of .61 demonstrated that for children's occupational aspirations there was a strong overall fit of the final model to the data. In addition, the reduction of the *b*-weight from .12 to .04 indicated that perceived parents' aspirations mediated the relationships between family social status and children's occupational aspirations. The

beta weights in the final model indicated that after taking into account the other predictors, parents' aspirations had the strongest relationship with children's occupational aspirations.

(v) Self-concept

The regression models in Table 4.11 show the relationships for self-concept scores. In Model 1, the findings indicated that children from middle social status families had higher self-concept scores than did children from lower social status families. The findings in Model 2 revealed that birth order was related to the children's self-concept scores. That is, firstborn children had more positive self-concept than did laterborn children, after taking into account family social status differences. In Model 3, parents' involvement at home, involvement in school, and aspirations combined to be related to a large amount of extra variation in children's self-concept scores (extra R^2= 27.27%). Perceived parents' support at home and their aspirations had strong associations with self-concept scores. In Model 4 the perceptions of school learning environment measure had significant associations with children's self-concept. The final R of .65 demonstrated that for self-concept there was an acceptable overall fit of the model to the data. In addition, the reduction of the b-weight from .27 to .02 indicated that the intervening variables mediated the relationship between family social status and children's self-concept. The beta weights in Model 4 showed that perceived parents' involvement at home and children's perceptions of school environments had the largest associations with self-concept.

Table 4.11

Regression Coefficients for Relationships Among Predictor Variables and Self-Concept

	Self-Concept							
	Model 1		Model 2		Model 3		Model 4	
Predictor Variables	*b*	*β*	*b*	*β*	*b*	*β*	*b*	*β*
Family Status	.27***	.19	.21*	.15	-.08	-.06	.02	.01
Birth Order			-.93*	-.16	-.59	-.10	-.43	-.07
Sibship Size			.12	.02	.16	.02	.02	.003
Parents' Involvement at home					.30***	.41	.24***	.33
Parents' Involvement in school					.08	.08	.08	.07
Parents' Aspirations					.29***	.26	.26**	.18
School Environment							.14***	.32
R	.19**		.24**		.57***		.65***	
R^2%	3.49		5.56		32.83		41.99	
Effect size	.04[a]		.06[a]		.49[c]		.72[c]	
Extra R^2%			2.07		27.27		9.16	

Effect size: [a]small, [b]medium, [c]large

*p<.05 **p<.01 ***p<.001

(vi) Peer-acceptance

In Table 4.12, the regression equations show the relationships for children's peer-acceptance. The findings indicated that family social status was related to the peer-acceptance scores. In Model 2, the results revealed that family structure had no association with the peer-acceptance. The results in Model 3 showed that parents' aspirations had a significant relationship with peer-acceptance, while the results in Model 4 indicated that the children's perceptions of their school learning environments had medium associations with peer-acceptance scores. Generally,

children who perceived their school learning environments more favourably had higher peer-acceptance.

Table 4.12
Regression Coefficients for Relationships Among Predictor Variables and Peer-Acceptance

	Peer-Acceptance							
	Model 1		Model 2		Model 3		Model 4	
Predictor Variables	*b*	*β*	*b*	*β*	*b*	*β*	*b*	*β*
Family Status	.26*	.14	.23*	.13	-.01	-.004	.10	.05
Birth Order			-.94	-.13	-.73	-.10	-.52	-.07
Sibship Size			.67	.08	.83	.10	.64	.08
Parents' Involvement at home					.07	.08	.01	.01
Parents' Involvement in school					.12	.09	.12	.10
Parents' Aspirations					.28**	.20	.19	.13
School Environment							.15***	.28
R	.14*		.18*		.30***		.40***	
R^2%	2.07		3.31		8.70		15.92	
Effect size	.02[a]		.03[a]		.10[a]		.19[b]	
Extra R^2%			1.24		5.39		7.22	

Effect size: [a]small, [b]medium, [c]large
*p<.05 **p<.01 ***p<.001

The final *R* of .40 demonstrated that for peer-acceptance there was an acceptable overall fit of the final model to the data. Furthermore, the reduction of the *b*-weight from .26 to .10 indicated that the intervening variables mediated the relationships between family social status and children's peer-acceptance. In addition, the beta weighs in Model 4 indicated that the children's perceptions of their school learning environments had the strongest association with peer acceptance scores.

(vii) Psychological adaptation

The regression models in Table 4.13 show the associations for psychological adaptation. In Model 1 and Model 2, the findings indicated that the family social status and family structure measures were not related to psychological adaptation. The results in Model 3 showed that parents' involvement at home had significant associations with the psychological adaptation scores, while the findings the Model 4 indicated that children's perceptions of school learning environments were related to their psychological adaptation.

Table 4.13
Regression Coefficients for Relationships Among Predictor Variables and Psychological Adaptation

	Psychological Adaptation							
	Model 1		Model 2		Model 3		Model 4	
Predictor Variables	*b*	*β*	*b*	*β*	*b*	*β*	*b*	*β*
Family Status	.07	.06	.07	.06	-.06	-.05	-.01	-.01
Birth Order			-.31	-.06	-.15	-.03	-.02	-.004
Sibship Size			.43	.07	.44	.08	.35	.06
Parents' Involvement at home					.16***	.25***	.14***	.22
Parents' Involvement in school					.07	.08	.07	.08
Parents' Aspirations					.09	.09	.05	.05
School Environment							.02**	.18
R	.06		.09		.32***		.37***	
R^2%	0.32		0.81		10.11		13.91	
Effect size	.003[a]		.01[a]		.11[a]		.16[b]	
Extra R^2%			0.49		9.30		3.80	

Effect size: [a]small, [b]medium, [c]large
*p<.05 **p<.01 ***p<.001

The final R of .37 demonstrated that for psychological adaptation there was only a modest overall fit the final model to the data. The beta weights in the final model showed that perceived parents' involvement at home and children's perceptions of school environments had the strongest associations with psychological adaptation.

(d) Conclusion

In general, the analyses in this chapter provided tentative support for the hypotheses of the investigation. Mothers tended to be more involved in their children's education than were fathers. After taking into account other variables, perceived parents' involvement at home, involvement in school, and aspirations were related to their children's aspirations. Parents' aspirations were the primary correlate of children's educational and occupational aspirations. Each of the affective outcomes was related to the children's perceptions of their school learning environments. In addition, self-concept and psychological adaptation had associations with parents' involvement at home while parents' aspirations were associated with children's self-concept. Birth order continued to be related to Chinese language achievement but was not associated with the other outcomes.

When I used multistage regression analysis to test the theoretical model of the study, the findings indicated that the associations between family social status and children's school-related outcomes were reduced when relationships involving the intervening variables were taken into account. The results for Chinese language and mathematics achievement indicated that the relationships were reduced, but remained significant, after the addition of the family and school measures indicating that partial mediation was demonstrated. In contrast, the relationships among family social status and

children's educational and occupational aspirations, self-concept, and peer-acceptance, became non-significant after controlling for the associations between the intervening variables and outcomes, indicating full mediation. That is, there was general support for the theoretical model which suggested that the relationships between family social status and children's school outcomes were mediated, or partially mediated, by measures of family and school learning environments.

That is, the quantitative analysis suggests the general propositions that: (a) children's academic achievement is related to their family social status and perceptions of immediate family learning environments, (b) children's aspirations are related to their parents' aspirations, and (c) children's affective school-related outcomes are associated with their perceptions of classroom learning environments and parents' involvement at home. These propositions indicate the differential nature of the relationships among family and school environments and measures of children's school outcomes.

These initial findings provide, however, only a general understanding of the relationships between parents' involvement in their children's education and their children's school-related outcomes. For a more detailed analysis of that involvement I interviewed parents, principals, teachers, and students. The results of the qualitative investigation are presented in the following chapters.

CHAPTER 5

QUALITATIVE RESULTS (1)

PARENTAL ASPIRATIONS AND INVOLVEMENT IN CHILDREN'S EDUCATION

INTRODUCTION

As part of the qualitative investigation four primary school principals, eight teachers, ten mothers, ten fathers, and ten students were interviewed to examine their experiences related to parental involvement in education. The questions that formed the basis of the interviews were presented in Chapter 3. For the analysis of the interviews, I have organized the qualitative findings into three chapters. In this chapter I examine relationships that relate to the first two hypotheses of the study. That is, I explore the relations between family social status and the proximal learning environments of families, and I investigate whether mothers and fathers differed in their involvement in their children's education. In chapter 6, I examine relationships between family structures and parental involvement with their children. In the final analysis of the qualitative data, in chapter 7, I investigate issues related to perceptions of school learning environments, and the school-related outcomes of children from middle and lower social status families.

PARTICIPANTS' BACKGROUND

For the qualitative analyses, the respondents were divided into two groups – those from middle social status backgrounds and those from lower social status. In the case of parents and students, the two background categories were based on parents' reported level of education and current employment. For the principal and teacher respondents, the categorization was based on the location of the school where they worked and the social status of the majority of parents. I labeled each participant in

relation to the categories shown in Table 5.1 to Table 5.4.

Table 5.1

Background Data for Parents and Students of Middle Social Status

	Family Respondents	
Middle Social Status	Education	Current Employment
Mother (a)	Graduate School	Housewife
Father (a)	Graduate School	Doctor
Student (a): Girl Firstborn with younger brother		
Mother (b)	High School	Private investor
Father (b)	University	Secretary
Student (b): Boy Firstborn with younger sister		
Mother (c)	University	Housewife
Father (c)	University	Doctor
Student (c): Girl Middle sibling with two sisters		
Mother (d)	High School	Private company
Father (d)	University	Engineer
Student (d): Girl Laterborn with elder brother		
Mother (e)	Teachers College	Primary school teacher
Father (e)	Graduate School	Government
Student (e): Girl Firstborn with younger sister		

Table 5.2

Background Data for Principals and Teachers from Middle Social Status Schools

	School Respondents			
	Location of School	SES of Most Parents	Teaching Qualification	Gender
Principal (A)	Inner City Area	Well-Educated Professionals	Graduate School	Male
Teacher (a)	Inner City Area	Well-Educated Professionals	Teachers College	Female
Teacher (b)	Inner City Area	Well-Educated Professionals	University	Female
Principal (B)	Inner City Area	Well-Educated Professionals	Graduate School	Female
Teacher (c)	Inner City Area	Well-Educated Professionals	Teachers College	Female
Teacher (d)	Inner City Area	Well-Educated Professionals	Teachers College	Female

Table 5.3

Background Data for Parents and Students of Lower Social Status

	Family Respondents	
Lower Social Status	Education	Current Employment
Mother (f)	High School	Nurse
Father (f)	High School	In China
Student (f): Boy Firstborn with younger brother		
Mother (g)	High School	Private company
Father (g)	High School	Private company
Student (g): Girl Firstborn with younger sister		

Mother (h)	Junior High School	Factory worker
Father (h)	Junior High School	Factory worker
Student (h): Girl Middle sibling with elder sister and younger brother		
Mother (i)	High School	Baby-sitter
Father (i)	High School	Private company
Student (i): Girl Laterborn with elder brother		
Mother (j)	Junior High School	Housewife
Father (j)	Junior High School	Cement factory worker
Student (j): Boy Firstborn with younger sister		

Table 5.4

Background Data for Principals and Teachers from Lower Social Status Schools

	School Respondents			
	Location of School	SES of Most Parents	Teaching Qualification	Gender
Principal (C)	Surrounding Suburbs	Semi-Skilled, Unskilled workers	Teachers College	Male
Teacher (e)	Surrounding Suburbs	Semi-Skilled, Unskilled workers	Teachers College	Female
Teacher (f)	Surrounding Suburbs	Semi-Skilled, Unskilled workers	Teachers College	Female
Principal (D)	Surrounding Suburbs	Semi-Skilled, Unskilled workers	Graduate School	Male
Teacher (g)	Surrounding Suburbs	Semi-Skilled, Unskilled workers	Teachers College	Female
Teacher (h)	Surrounding Suburbs	Semi-Skilled, Unskilled workers	Teachers College	Male

In the analysis of the interview data, the comments of the parents and students from each family group are presented together. In the same way, the statement of each principal is followed by those of teachers from the same school. Presented in this way, the qualitative data provide a multi-faceted insight into the family-school nexus for children of middle status background, on one hand, and those of lower social status, on the other.

In this chapter, I explore the hypotheses that related to possible differences in fathers' and mothers' involvement in their children's education, and the relationships between family social status, parents' aspirations, and parental involvement in their children's education. That is, I examine the hypotheses that stated:

Hypothesis 1: Mothers are more involved in their children's education than are fathers.

Hypothesis 2: Parents of middle social status have higher aspirations and are more involved in their children's education, than are parents of lower social status.

The investigation focuses predominantly on the comments of the parents from the two social status groups. The comments of students, principals, and teachers about their perceptions of the involvement of parents are used as supporting, and complementary evidence. In addition, the analyses of the first two hypotheses are intertwined as I present quotes from the interviews.

Middle social status: parental aspirations

The interview data on parental aspirations for their children evoked fairly simple and direct answers. Four of the middle status parents [Mother (a), Father (b), Mother (d),

and Father (e)] wanted their children to go to university. Two parents explained this in some detail:

Mother (a)

> I insist that degrees for children are still important. So I hope that my children can go to university. I feel that degrees do not just mean certificates, sometimes represent self-fulfillment. They need to do their best.

Father (b)

> If children have a higher degree, it means that they can easily find a good job. In addition, Chinese traditional culture makes parents do their best to provide children to have a higher degree, although at present some people think degrees do not represent ability. But I still want our children to have a higher degree.

However, there were three middle status parents [Father (a), Mother (e), and Mother (f)] who claimed no specific aspirations for their children, saying it should "depend on the children themselves".

Father (a)

> My daughter is smart and diligent. She always does every thing very well. I know she wants to go to university. Just depend on her choice.

The other common response from parents was to explain that they expected their "children to do their best" without having any more specific aspirations for them. Three middle social status parents [Mother (b), Father (c), and Mother (c)] expressed this view.

Mother (b)

> I feel that children need to do their best. Do not just let them go, they are too young to decide which is right or wrong.

Asked about what kinds of occupations they would like their children to have in the future, four parents claimed that it "depends on their children's decision" [Father (b), Mother (b), Father (c), and Father (d)]. However, one middle status parent made it clear that the range of options she considered appropriate for her daughter was limited.

Mother (a)

> My daughter is good at Chinese language and literature, my daughter plans to become a writer or doctor. It depends on her decision.

Most parents thought a job for their children was very important, for later survival and social reasons.

Mother (e)

> They could afford to live by themselves. In addition, a job represents a social status. As a result, I hope my children have good jobs.

These comments are consistent with the findings of some earlier investigations which have indicated that family social background has significant relations with parents' aspirations (Hao & Bonstead-Bruns, 1998; Marjoribanks, 1997, 2002b; Qian & Blair, 1999). Hao and Bonstead-Bruns (1998) suggested that "One important determinant of the agreement between parents' and children's educational expectations is parental influence, which includes: providing economic resources to achieve higher goals, serving as role models of achievement, encouraging specific goals for the child, and recognizing and praising behaviors that lead to high achievement" (p. 176). The parents' responses on aspirations gave evidence of these types of behaviors.

Lower social status: parental aspirations

Only two of the lower status parents [Father (i) and Mother (i)] explained that they

hoped that their children would go to university.

Mother (i)

> I hope that my children can pass the entrance examination of university. I feel the degree still important in Taiwan. We want our children to get higher degree and have good jobs in the future. I do not want to see them the same as us. It is too difficult for my husband and I look for a good job.

Father (i)

> Sometimes I feel it is not fair for us. I mean that higher social status level parents who seem more important than us in the primary school. Of course, I hope my children can get higher degree in the future. I know it is not easy for them, especially now there are a variety education reforms in Taiwan education, sometimes it is good for higher social status families not for us.

Four of the lower status parents expressed the view that they would respect their children's decisions on future careers [Father (h), Mother (h), Father (j), and Mother (j)].

Mother (h)

> Depend on children's decisions and their ability. We hope that they can have higher degree, but her academic outcomes are not good enough. We cannot give her any help, now homework and courses in primary school are more complicated than before. So, after school she goes to cram school.

Mother (j)

> My son is a good boy, he knows how to deal with his homework. Also, he can take care of his younger sister. We do not know about their future, we respect their decision.

Moreover, Father (g) and Mother (g) stressed that their children needed to do their best.

Mother (g)

> We feel children need to do their best. This generation is too lucky, they have good life and good education. I do not have an exact idea

what they need to achieve. But I think they have to do their best.

When talking about what kinds of occupations they wanted their children to have in the future, five parents claimed that this would depend on what their children decided [Mother (f), Mother (g), Mother (h), Father (i), and Father (j)].

Mother (f)

> My two sons' personalities are very different, the elder son is sensitive and smart. I feel it is too early to talk about what kinds of jobs I want him to have. Depend on his ability and his decision.

Mother (g)

> I do not know how to answer the question. Depend on her decision. If she can find a job which suitable for her and she likes it, this is wonderful.

There were two of the lower social status parents who hoped that their children would become teachers. Perhaps their expectations reflected the situation in earlier years in Taiwan, when young people could attend teachers colleges without paying fees.

Father (g)

> My kid wants to be a teacher.

Father (h)

> I hope that my kid will be a teacher or work for the government.

Summary

The interviews indicated that a greater number of the middle status parents wanted their children to go to university, than did lower social status group parents. The difference in parental aspirations may be understood in terms of opportunities for university study that are available for children from the two social groups. Children from lower status families in Taiwan are generally only able to attend university if they do well at the entrance examinations for public universities, where fees are

comparatively low. Children of middle social status families, however, tend to expect their parents to pay the high fees charged by private universities.

Middle social status parents' involvement in children's education

The interview questions on parental involvement in their children's learning provided quite extensive data, not only from the family responses of parents and children, but also from the responses of principals and teachers in the schools. In the discussion that follows, data from families in each social status group are considered first, followed by the views expressed by principals and teachers.

Family data

There were six parents and three students from middle social status backgrounds who indicated high parental involvement at home and in school. They indicated:

Family (a): Mother (a)

> When I gave birth to a baby I quit my teaching job. Then I could take care of my children myself. Sometimes, my daughter's teacher wants parents to do a favor for her, such as attending school excursions, school functions, and class activities. I always do my best to help her. I think that the parental involvement is very important for my daughter and for me, because I can understand my daughter - what she is learning and what she does in the school. I also can see the other students' behaviors and their interactions.

Student (a)

> My mother was a high school teacher; she quit her job because she wanted to take care of us herself. Now she is a housewife and is involved in all school activities, so she understands everything in our school, when I have questions, she can help me immediately. But my father is a doctor; he is busy and seldom comes to school.

Family (b): Father (b)

> I do not need to work, so I go to school very often and do many things for my son and daughter. Of course, I also can do something

for my children's teachers. I am an active person; as a result, I like to attend any kind of activities in the classroom and at school.

Mother (b)

In the past, my parents took me to school, that was all. They did not care what I was doing in the school, but now I can see what my children do at school. I feel that it is very good, because my children and I have very good relationships at home.

Student (b)

My father does not need to work; he often goes to school and does every thing for my teacher. Actually, he invests in many companies. He does not need to go to the company. But when I was little, my father had a job; I needed to go to cram school after school. I hated going to cram school. Sometimes I also did not want to go to primary school. Finally, my father quit his work. So now my father could be involved in most of the school functions. Sometimes my sister and I have activities at the same time. My parents would attend separately. My mother is a secretary in a private company, but she always does her best to attend our school activities.

Family (c): Mother (c)

I think that parental involvement at home and in the school is very important for my children. If my children have any problems I will help them to resolve them immediately, especially some behavioral problems. Of course, I also pay attention to their homework, but that is not the most important in my opinion. I feel if children like school and want to go to school, they will have good school outcomes.

Family (d): Mother (d)

I do my best to participate in my children's school events, although I have a job. I teach the Chinese idioms in my daughters' class in the morning before I go to the company. I can find my children's problems and help them immediately.

Family (e): Mother (e)

Parental involvement at home and in the school is very important. For example, the new mathematics teaching method, initially I was confused about what the method was, but I attended the seminar in

the school, and now I can understand what my children are learning.

Student (e)

> My mother often comes to my class and discusses things with my teachers, because she is also teaching in our school. My mother teaches in our school, so she can attend every activity.

There were some parents of middle social status background who had little involvement in their children's schooling. All the parents in this group were fathers. In three cases they clearly expressed the view that parental involvement in school was a good thing, but explained that the demands of their job strictly limited their opportunities to participate.

Father (a) [a doctor]

> I seldom attend school functions. I think, however, that parental involvement in the school is very important.

Father (c)

> I am a doctor and work in a different city, so I seldom attend my daughter's school activities.

Father (d)

> I agree that parental involvement in the school and at home is very important. In the school, parents can communicate with teachers face to face, and we can understand children's life in the school. But my job does not allow me to go to my children's school on weekdays.

Another father (e) felt that his presence at school was not really necessary, given his wife was actively involved. "My wife is a primary school teacher, so I seldom care about my children's school life". Three of the fathers, however, mentioned the way they supported their children at home – often by talking with them about what was going on at school.

Father (a)

> Although I seldom go to school, my wife and children always talk to me about school matters. Sometimes I check and tutor my children's homework, especially mathematics and natural science.

Father (d)

> At home, I like to listen to my children talk about every thing, which is related to their school.

Father (e)

> At home, sometimes I will ask them about school life and help them to finish their homework.

Two student respondents in this group provided interesting insights into their experiences of parental involvement. Student (d) recognized that her parents only had limited time to participate in school activities, but considered that they were always prepared to support her learning in any way that was needed.

Student (d)

> My parents sometimes attend parent-teacher conferences and sports. The other activities they do not have time to attend. They will come if they know I need it and they can do me a favour. In addition, they do help my teacher in some things. My father sometimes checks my homework. If I have questions, my father can teach me.

The second student found herself in the situation of having a mother who, as a primary school teacher, was very interested in her children's schooling. She, however, was in a class where the teacher did not encourage parental participation, so the mother used to go instead to her sister's classroom. As a result, she felt that her mother paid more attention to her younger sister.

Student (c)

> My mother always goes to my younger sister's classroom. My sister has many problems; she does not like to go to school and always gets bad marks in school. My mother seldom comes to my classroom,

> because my third grade teacher does not like parents coming into the classroom. In addition, I have fewer problems than my younger sister. So my mother seldom comes to my classroom.

It is interesting to note, however, her positive comments about the contribution of other students' parents in her fourth and fifth grade classes. Her first sentence also makes it clear that it was generally mothers who came into the school.

Student (c)

> My classmates' mothers often come to the classroom. They teach us some interesting programs, such as traditional poems and things about special festivals. They teach us how to make traditional food [such as, dumpling, Chinese cake]. I feel it is good and interesting.

Although Student (c)'s father was too busy to visit the school, she did consider that he was supportive in doing homework, when she needed it.

Student (c)

> My father is a doctor and works far from Taichung city, he seldom comes to our school. Sometimes my father teaches me how to do my homework, but I always can do homework by myself.

Student (a), after listing all the activities that her mother arranged for her, commented "sometimes, I feel that I am very busy and tired". In contrast, Student (b) was aware that all the additional educational support he received was related to a long-term goal: "My parents want my sister and me to go to a private junior high school".

Much research has demonstrated that parents with higher social status are more likely to be involved in their children's schooling than are parents of lower social status (e.g., Ho & Willms, 1996; Lareau 1987; Lareau & Horvat, 1999; Lareau & Shumar, 1996; Nord et al. 1997; Parcel & Dufur, 2001;West & Noden 1998). Nord et al. (1997), for example, indicate "In general, families with more financial resources

show greater levels of involvement … Children have the most favorable outcomes if both of their parents exhibit high involvement" (pp. 24-53). In the present analysis, mothers revealed considerable involvement in their children's schooling, which is consistent with the findings of West and Noden (1998). They concluded that "mothers generally assume overriding responsibility for their children's education" (p. 1). The present findings certainly reflected the importance of mothers, as all but one of the interviewed parents who was highly involved in their children's schooling was a mother.

However, there was one father (b) who indicated extensive and on going involvement with his son's schooling activities. In this instance, it was the father's freedom from the constraint of regular office hours that enabled his high level of involvement. The son's comments reveal a very interesting response to his father's involvement. He spoke at length comparing the school schedule for him, when his father was working with what had been happening since his father stopped work and began being involved with school activities. His remarks point to his appreciation of his father's support in school activities. In general, the initial findings indicated that in middle social status families, while both parents were interested in their children's education, mothers were more actively involved than were fathers.

The interview data are also useful in helping us to understand why the parents became involved in their children's schooling. The emphasis was on helping their children's learning and understanding what they were being taught at school. Several parents also expressed the view that this involvement improved their relationships with their children.

Some parents explained in detail the nature of the school activities in which they were involved. They attended parent-teacher conferences or meetings, sports events, excursions, special seminars for parents, while some were involved in classroom teaching.

Mother (a)

> I am a member of the Parents' Association and a volunteer in the school.

Father (b)

> I teach Chinese traditional poetry in the morning time.

Mother (d)

> I teach the Chinese idioms in the morning.

Outside the school, the parents indicated that they spent considerable time supporting their children's learning by supervising their homework.

Mother (a)

> I help my children to complete their homework, such as searching for data and information from the internet, library, and museum.

Father (b)

> I supervise them to finish their homework. My responsibility is mathematics and natural science; my wife's is Chinese language.

Mother (e)

> I help my children to finish their homework.

In addition, some parents described the additional activities and experiences which they organized for their children after normal school hours or in the holidays.

Mother (a)

> In the holidays, some other parents and myself, who are good friends, we take children to go to visit places, such as Puli, the paper factory,

the china factory or visit some special art performances and exhibitions.

Father (b)

I like to take the children to attend some programs and courses, such as swimming classes, 'do-it-yourself' activities in the National Natural Science Museum, and to see some art exhibitions.

Mother (b)

In the holidays we try our best to take the children to attend out of home activities.

Mother (e)

I also encourage my children to learn some programs, such as English and other programs and activities. In the holidays we often take our children out.

The activities that these families organized for their children, fit well into Bourdieu's (1984, 1998) concept of cultural capital. In addition, the comments of these middle social status respondents, illustrate how these families were able to provide what Marjoribanks (2002a, p. 17) has called "educational capital" to enhance their children's learning achievements. In his view educational capital includes both social and cultural capital. That is, "family educational capital indicates that parents or other family members provide supportive settings that allow children to gain access to those cultural resources associated with school success. In addition, strong family educational capital provides children with access to parents' aspirations and to the economic and human capital resources available in families, as well as to the resources of cultural contexts, schools and other institutions" (Marjoribanks, 2002a, p. 16).

The statements of the parents and students also pointed to the way the structural realities of life impinged upon parental involvement in schools. Father (a) was a busy doctor, with no time for a proper interview and rarely able to participate in school activities. This was in contrast to the father who enjoyed coming often to school because he had no work constraints. Several mothers commented that their work constraints limited their opportunities to participate in classroom activities.

The children's comments provided insights into the way they felt about their parents' involvement in the school. It should be noted that few research studies of parental involvement in schools have sought to include the views of students in this way. One of the exceptions is the study by Lin (2002c) whose investigation related to secondary school students. In the current study, the students' comments pointed to potential difficulties or negative influences of which teachers need to be aware. One student explained how her mother's presence led to jealousy from other students and placed pressure on her.

Student (e)

> My mother often comes to my class, sometimes my classmates are jealous of me, and I also get much pressure. My mother teaches me how to write homework and plans what kind of activities I need to attend.

School data

The interview data from Principal (a) and Teachers (a) and (b) who were all at the same middle social status school, situated in an inner city area, indicated high levels of parental involvement in the children's learning, both through participation in school activities and support for children at home. They described in some detail the ways in which they had parents participating in their school context.

School (a): Principal (a)

> In our school now there are a variety of activities both inside and outside the classroom in which parents are involved. These include not only the parent-teacher meetings, but also having them participate in classroom activities, especially, in relation to the celebration of festivals and reciting of traditional poetry.

Teacher (a)

> Every class has a parent-teacher organization. In my class, I am in a positive position, so if I want parents to help me to do something, such as parent-teacher meetings, sporting activities, students' performances, morning teaching and some excursions, I will tell the chairperson of the organization and he/she will arrange it. Sometimes, I feel I am lucky I could learn new knowledge from my students' parents. Some parents teach in the university, some of them are doctors. They often go to school and give children some programs and training courses.

Teacher (b)

> In my class, there are not only parent-teacher meetings and sports, they also include some excursions, such as, visiting the solar system in the National Natural Science Museum, when I teach the topic in relation to the solar system. Some activities need to have special knowledge. For example, there is a topic about 'insects' world'. One father teaches in the University about insects. So he gave a seminar to students and parents. In the morning, I need to attend the morning meeting with the other colleagues. I ask parents to teach students some programs, such as Chinese traditional poetry, or some programs that are planned by myself.

The principal and teachers also recognized how much the parents did in supporting their children's learning at home, even when the subject matter was unfamiliar to them.

Principal (a)

> At home, some parents help and teach their children to complete their homework. Other times parents do not exactly teach their children to do their homework. When their children do their

homework, parents just accompany them, and the children feel safer. However, in some parent-teacher meetings some parents suggest that they feel the new mathematics teaching methods are difficult. They try to ask teachers for some assistance but sometimes they feel that it is useless. Further, they feel their children's homework is getting complicated.

Teacher (a)

Most parents teach and check their children's homework at home. Some parents help their children to search for data or information through many methods. I feel that now parents provide their children with more support than before. On the other hand, some parents want to improve their children who have more knowledge and ability, as a result, they take their children to attend some course or activities, such as English, to play instruments and attend some activities. In addition, I think that parental support at home is very important. At home, if parents provide more support to their children, they have fewer problems. But some parents just focus on their children's mark. That would affect children's school life. Such children sometimes are easily made nervous and upset and have some negative behavior.

Teacher (b)

In my class, most parents will sign the diary and tutor their children's homework. I like to give students some different homework, such as when we visited the botanic park, I asked them to write a report about a 'plant'. They can choose a kind of plant to prepare the report. As a result, children need to collect some material or data from the internet or the botanic park. Sometimes, parents need to help them too.

However, both principal and teachers spoke also of the difficulties which were evident in the case of some parents.

Principal (a)

But our school functions often take place on weekdays; parents do not have time to come to school. Moreover, there are difficulties in parent-teacher and parent-parent interactions. Some parents want to tell teachers what to do and others resent this. Some parents form

groups that exclude others.

Teacher (b)

> On the other hand, some parents need to work; as a result, they could not attend school functions.

The principal made it very clear that he was strongly supportive of parental involvement in his school.

Principal (a)

> Six or seven years ago, there was an educational reform commencing in Taipei city. I went to visit several primary schools, and I found there were some policies and programs that were very good. One of the projects in this reform was asking teachers to cooperate with parents. There were many successful examples in Taipei city primary schools.

Both teachers made mention of the principal's leading role in this school reform.

Teacher (a)

> Our school is the first school that opened the door to welcome parental involvement. Initially, some teachers thought they could not handle the parental involvement matters. Further, our principal encourages us to attend some courses and training programs to improve our knowledge and teaching methods. It is getting better in our school now. Our principal feels that parents and teachers have a good interaction, and that is very important. But he thinks that teachers need to have their own plan, not just to listen to parents' opinions.

Teacher (b)

> Our principal encourages parents to attend the parent-teacher meetings, sports, and students' performances. But he does not agree with parents dealing with the chores of the classroom too much.

Teacher (b) also clearly expressed her own positive attitude to working with parents.

Teacher (b)

> I believe that teaching is not a closed-door matter; parents and teachers should be educational partners. They need to cooperate with each other.

There was recognition, however, that some teachers found it difficult to adapt to this new policy.

Principal (a)

> Some teachers know how to communicate with parents; they can handle everything very well. In addition, those teachers like to attend some training courses and programs. As a result, they have confidence and know how to plan their own teaching schedule and activities. Some teachers, however, do not like parents attending, they feel upset and burdened.

Teacher (b)

> In our school, some teachers are conservative, they do not want to learn new knowledge, and want to teach the same course with the same methods through their whole life. But some teachers did accept the new policy and wanted to change their mind.

Principal (b) and the teachers (c) and (d) in the other inner city school revealed a situation where parental involvement was recognized as an important trend.

School (b): Principal (b)

> I think it is a tendency, but teachers should not be forced [to be involved]. I believe that education should include school education and family education. I think that teachers need to open their minds and accept parents' suggestions. Because it is a trend, teachers cannot avoid the issue.

However, neither principal nor teachers appeared to embrace the new approach enthusiastically as a whole school policy, as was the case with Principal (a) and his teachers. For her part, the principal felt that it was a matter best left to the individual teacher to decide.

Principal (b)

> In our school, every teacher has his or her own teaching method; some teachers have many activities they need parents to attend, other teachers do not like parents to come to school too often. For me, it is up to the teachers.

How this worked out in practice is revealed in the contrasting comments of the two teachers. Teacher (c) was very supportive of parental involvement:

Teacher (c)

> In my opinion, if parents often attend school functions, their children have good relationships with their classmates and have higher achievement. In addition, our principal agrees to open the door to welcome parents to come in. Sometimes she likes to talk and discuss some educational policy and reforms with parents. In addition, she says that this is a policy of educational reform; teachers need to learn how to handle it, not just reject it.

In contrast Teacher (d) recognized that the principal was giving some encouragement to parental involvement, but leaving it up to each teacher to organize.

Teacher (d)

> Our principal always says that this is a tendency. Teachers need to accept it but have their own ideas and plan.

She felt that she had little need of help from parents in her classroom.

Teacher (d)

> I seldom need parents to help me to do something. But I still have parent-teacher meetings. I feel that it depends on the teacher's personality. Some teachers do not want parents to come to school

> and the classroom too often. Some of the teachers like to communicate with parents. Now, however, teachers understand that it is a tendency, they need to accept that parents will be involved at school.

The teacher recognized that at first teachers were often uncomfortable with the presence of parents in their classroom.

Teacher (d)

> Many teachers disliked parental involvement in the beginning, but it is getting better now.

All three respondents from this school felt that the main difficulties encountered in actually implementing parental involvement at the school were on the parents' side. The points they emphasized were not so much the time factor, but parents' attitudes to being involved in school activities.

Principal (b)

> I feel that parental attitudes are mainly to blame. Those, whose children have no problems, feel that they do not need to attend. Other parents do not care enough about their children's education.

Teacher (c)

> Some parents have jobs so they could not come to school. In addition, some parents consider their children are getting mature, and need to learn how to deal with every thing [themselves].

Teacher (d)

> Parents think teachers could handle everything and believe teaching is a professional job. They could not help any more.

In relation to parents' supervision of home learning, Principal (b) concluded that parents often wished to help but were confused by the introduction of new curriculum and teaching methods.

Principal (b)

> I think most parents like to supervise their children to do their homework. Some parents told me the new mathematics teaching methods are more complicated than before. They do not know how to teach their children. In addition, parents are also confused about some new educational policies and why schoolbooks need to be changed every year.

Teacher (c) also pointed out the additional learning activities which many parents at her school expected their children to complete, in order to ensure they were accepted into the prestigious private junior high schools.

Teacher (c)

> There are many children who want to go to private junior high schools. So, they not only complete their homework, but they need to do many additional tests or exercises which are given by parents or tutors.

Summary

The interview data indicated that, in general, middle social status parents were involved actively in their children's education. Some parents were more involved at home than at school, but typically at least one parent was also involved at school. Also, the interviews indicated that mothers tended to be more involved when both home and school activities were taken into account.

Principals and teachers considered that parents, on the whole, were involved and a positive influence on their children's education. The two principals did, however, reveal different leadership strategies. Principal (a) expressed strong positive support for parental involvement in his school. In contrast, the interview data showed that Principal (b) always explained that parental involvement was a tendency but it was one that she did little to actually encourage.

Overall, the interview data provided a picture of middle social status parents who had high aspirations, were involved positively in their children's education, and sent their children to primary schools where involvement was supported.

Lower social status involvement in children's education

Family data

The interview data from respondents of lower social status families were quite different in tone to those from middle social status families. There was a sense of parents being pre-occupied with work and home responsibilities and having little time for participation in their children's learning. Only three parents and two students gave an indication of actual involvement in school-based activities.

Mother (j)

> I work at home, so sometimes I am involved in my children's school functions, but I do not know how I can help my son's teacher to do any teaching.

Mother (i)

> I would like to know what the educational reform differences are between now and the past. If the parent-teacher meetings are in holidays, I often attend and see the differences in new mathematics methods which are more complicated than before.

Father (i)

> I was involved in the sports meet once or twice. I need to work on weekdays. I think teachers will take care of children in the school. I do not know how to be involved in the school.

Student (i)

> I feel parental involvement in the school and at home for me is very important. My mother always does her best to attend my activities. But my father seldom comes to our school.

Student (j)

> My parents attend parent-teacher conferences, sporting activities and sometimes my mother goes to decorate the classroom. They want to come to school and see what I am doing, but they do not have time, because they work in a factory.

It is clear from each of these responses that the extent of parental involvement was comparatively low. The parents went to the school "sometimes", "once or twice" or "seldom". In addition, what is most noticeable about each of these comments is the particular constraints and difficulties which were mentioned. Mother (i) could attend parent seminars only if they were in the holidays. Her daughter recognized that her mother "did her best to attend school activities". In other cases, the difficulties related to the parents' sense of inadequacy and of having nothing that they could offer to the teacher.

Mother (h)

> I think teaching is a professional job, I cannot provide any help.

Father (h)

> I feel I do not have enough ability to help teachers to do anything.

Father (i)

> I think teachers will take care of children in the school. I do not know how to be involved in the school.

There were a few parents who expressed quite clearly the opinion that parental involvement was important, but they indicated that it was too difficult for them to become involved.

Father (g)

> Although I am busy and seldom go to school, I agree that parental involvement is very important.

Father (h)

> I think it is important, but I am very busy, and I feel I do not have enough ability to help teachers to do anything.

This last parental view was directly reflected in the daughter's comments.

Student (h)

> My parents always say that other parents have more time, more money and more knowledge. And they say that they do not know how to help the teacher to do anything ... My parents most of the time just sign my diary.

In the area of helping with homework, two mothers and one father gave an indication of a limited amount of direct involvement with their children and a difficulty in providing them with any real help.

Mother (g)

> At home, when they do their homework I try to read a book in the same room, I do not exactly help them to finish their homework. But if they have any questions which includes homework or other problems, they can ask me to help them to resolve it.

Father (g)

> In addition, I help my children to finish their homework.

Mother (i)

> I feel the research reports and learning sheets for my children are very difficult. Sometimes, they need to spend much time to complete their homework.

These descriptions of support for home learning stand in contrast to the more detailed and explicit support which the middle social status parents claimed to give to their children. There was only one student from lower social status families who reported that her parents provided home support, with homework and other visits, even

though she made no mention of their involvement in school activities.

Student (g)

> My parents check and teach me about my homework. Sometimes my mother takes us to attend other activities.

Another exceptional case was apparent in the respondents from Family (f). The comments of the mother and son reinforced one another and demonstrated the possibilities of providing social and educational capital through the extended family (Marjoribanks, 2002a). The mother had no time at all to support the son's learning, while the father was away working in China. However, the student did receive considerable support from an aunt.

Family (f): Mother (f)

> I think parental involvement is important. I do not have time to go to school. But, I am lucky; my son's teacher is very nice and tells me every thing about my son through the diary. My sister is a primary school teacher, so if my sons have any questions, they can call their aunty. In fact, after school they go to her home do their homework and wait for me to pick them up.

Student (f)

> My mother is a nurse; my younger brother, mother and I live with my grandmother, because my father works in China. Sometimes my mother attends the parent-teacher conferences. But she cannot participate in the other activities. My aunt is a teacher in our school. If I have any questions I can ask her to help me. In fact, after school my younger brother and I go to my auntie's home and wait for my mother to take us. My mother seldom comes to school, because she feels it is very boring.

It is also interesting to note that the son's teacher understood the mother's predicament and was prepared to communicate with her via the school diary. The extent of social capital working in the boy's favour is also revealed in the fact that the

boy's aunt and his class teacher were good friends and colleagues.

Another phenomenon revealed in some of the comments was the role of the "cram school". This is the name popularly given to coaching classes run by private individuals in their homes or in rented accommodation. Cram schools are designed to give students additional instruction in school subjects, focused primarily on helping students to complete their school homework.

Father (j)

> After school, children go to cram school, so they can finish their homework in the cram school.

Another busy mother explained the difficulties which led her to send her daughter to cram school.

Mother (h)

> I work in a factory. Sometimes, I need to work at night and on weekends. So, I am very busy. In addition, I think teaching is a professional job, I cannot provide any help. My children almost always can finish the homework by themselves; I seldom care about their homework

The daughter confirmed this,

Student (h)

> I always go to cram school after school.

The responses suggested that cram schools were used by lower status parents, mainly because they did not have the time or the knowledge to help their children complete the regular homework tasks. There are also indications that the cram schools serve the function of childminding for parents who have to work long hours in factory-type jobs.

School data

Principal (c) from a primary school in one of the surrounding suburbs, indicated that he personally supported parental involvement in their children's learning both at school and at home.

Principal (c)

> Our school teachers are young and prepared to be involved ... I believe if parents spend more time [helping their children] at home, they will have good relationships and the children will have fewer problems.

One of the teachers also reflected this positive attitude to parental involvement at school.

Teacher (f)

> Indeed, [it is important for] parents and teachers to learn how to communicate and interact. I believe that parental involvement is a good project, because when parents attend school functions, their children are more interested in school life. If teachers can have good relationships with parents, parents will be a good power for teachers.

The other teacher appeared much less enthusiastic.

Teacher (e)

> Our principal agrees with the new policy but does not encourage parents to attend too often.

Teacher (f) also commented on other teachers' responses to the new policy of encouraging parental involvement in the schools.

Teacher (f)

> In the beginning teachers did not know how to deal with the parental involvement in our school. Some parents were excited and interested in it. They wanted to tell teachers how to do it, because those parents

had already obtained some information from newspapers or magazines. Sometimes, we saw that the teachers felt upset.

The principal, on the other hand, felt that the difficulties of implementing the policy lay more with parents.

Principal (c)

> The problem is with parents, because most parents still think teachers need to teach and take care of their children in the school. All school functions are teachers' responsibilities. In our school, there are many parents who belong to lower social status, they think teaching is teachers' business, they only take children to school, that is all. Some parents think teaching is the teachers' job.

Even in the home situation, the teaching staff considered that the parents in their school did little to help their children's learning.

Principal (c)

> The things most parents like to do at home are sign the children's diaries and tutor their children's homework. In our schools, most parents are busy at their own work and do not pay attention to their children.

The principal and one of the teachers also made mention of the parents' tendency to make use of cram schools.

Principal (c)

> I often see some children go to the cram school and go to the PC game store. That is why there are so many children who drop out in junior high school.

Teacher (e)

> Some parents, however, take their children to cram school, because it is a useful place where there are tutors who can help their children to complete their homework. Parents do not need to do anything at home.

Principal (d) from the other primary school in an outlying suburb was rather more non-committal in his responses. He concluded that parental involvement in his school was minimal, because of difficulties on the parents' side.

Principal (d)

> Parents are almost only involved in the regular parent-teacher meetings and sporting activities. Some parents are really busy. Other parents are selfish and care only about their own children. Teachers at first disliked parents' involvement but now come to accept it.

The teachers' comments reinforced those of the principal.

Teacher (h)

> In the beginning, there were many teachers who disliked parental involvement. But now they are changing. Our principal encourages teachers to attend training courses to increase teachers' knowledge and ability.

Teacher (g)

> Our principal supports parental involvement but not too much.

Teacher (g), however, expressed views that were personally positive to parental participation in school activities.

Teacher (g)

> If teachers limit parents coming into the school then it is a shame. I feel teachers need to change their minds to adapt to the new society, because parents are good resources for teachers and parents can be teachers' assistants.

She went on to explain the difference in parental involvement in the early, as compared to the latter, grades which she had taught.

Teacher (g)

> A couple of years ago, I taught the first grade, where parents were

> more nervous and did not have experience about how to help their children to adapt to school life. So they liked to come to school and care about their children. But now I teach sixth grade students. I feel parents have more experience than before. As a result, some parents seldom come to school. But, some parents still assist in the morning teaching in the classroom and attend the school volunteer group.

Her discussion reflects research findings that parental involvement is greatest in the early school years (e.g., Greene, Halle, LeMenestrel & Moore 2001; Liu & Chien, 1998; Nord, 1998; Nord, Brimhall, & West, 1997; Nord & West, 2001).

In relation to parental support of children's learning at home, the principal said simply:

Principal (d)

> I think most parents help their children to finish their homework at home.

The comments from the teachers, however, provided important insights into curriculum and teaching changes which made it difficult for parents to provide much help to their children.

Teacher (h)

> Now teachers give students homework differently than before. Sometimes parents need to help children go to a museum, or library and some institutes to search for data and information. As a result, sometimes parents feel that they cannot provide any assistance

Teacher (g)

> Parents think that the new mathematics teaching method is more difficult than the past. They do not know how to teach their children at home. Some parents also say that the research reports are also difficult. Every time when their children want to write a report, parents need to ask their friends to help. In addition, the most difficult thing to handle is a learning sheet; sometimes they spend much time finishing it … but the educational policy is changeable

every year. They do not know what to do.

Summary

The interview data indicated that, in general, lower social status parents had limited involvement in their children's education. Quite often parents indicated that it was the teachers' task to teach their children. While mothers, in particular, indicated an interest in their children's education, they often expressed the opinion that they were unable to help.

Principals and teachers appeared to have a restricted enthusiasm for parental involvement. Overall, the interview data provided a picture of lower social status parents who had modest aspirations, were minimally involved in their children's education, and sent their children to primary schools where parental involvement was policy but, perhaps, not enthusiastically supported.

Conclusion

The interview data tended to support Lareau's (1987) finding that middle social status parents expect to be partners with teachers in their children's education and that there is an interconnectedness between parents and teachers. In contrast, lower social status parents have a greater expectation that teachers are the professionals and they will teach their children. That is, there is a sense of separation between parents and teachers. The picture that evolved from the interviews was that middle social status parents had high aspirations, were involved actively in their children's education, and were connected with the teachers. Also, mothers in middle social status families were more likely to be involved in school activities than were fathers. In contrast, lower social status parents had more modest aspirations for their children. Also, while parents, especially mothers, were interested in their children's

schooling, they often felt they were unable to be meaningfully helpful. Lower social status parents also tended to have a greater sense of separation from their children's schooling.

That is, the interviews provided tentative support for the first hypothesis, that mothers (especially those from middle social status families) are more involved in their children's education than are fathers. In addition, the interviews provided support for the second hypothesis, that parents of middle social status have higher aspirations and are more involved in their children's education, than are parents of lower social status.

In the following chapter, I examine the interview data in relation to family structures and parental involvement with their children.

CHAPTER 6

QUALITATIVE RESULTS (2)

FAMILY STRUCTURE INFLUENCES ON PARENTAL ASPIRATIONS AND INVOLVEMENT

The interview data analyzed in this chapter were used to examine the following hypothesis:

Hypothesis 3: Measures of family structure (sibship size and birth order) are related to parents' aspirations and to their involvement in their children's education.

In this study, I use sibship size and birth order as measures of intermediate family contexts and as correlates of children's school-related outcomes. During the interviews, however, parents were more interested in discussing birth order differences than they were in talking about family size. As a result, the analysis related to sibling structure concentrates on exploring birth order differences in parents' and children's behaviors.

The initial quantitative study examined possible gender differences in parents' aspirations and parental involvement, and suggested that there were no differences between boys and girls in relation to their perceptions of parents' involvement in their education or in school-related outcomes. I explored the matter further in the qualitative investigation, and I have included the responses about gender differences in this discussion of family structure.

Sibling structure differences

Family data

Parents' from both social status groups had a view that firstborn children developed certain characteristics often not observed in laterborn children. Such sibling differences in children's qualities were clearly an issue that was of interest to the parents, as almost all chose to make a comment about the differences.

Mother (a)

> My younger son always wants to do everything better than his sister. My daughter is generous. I often go to school, so I can easily recognize who is the firstborn child or laterborn child [in the class]. There are differences between firstborn and laterborn children.

Father (b)

> I think the firstborn children are more independent and positive. The laterborn children are more dependent and arrogant.

Mother (c)

> The firstborn children are independent and positive, the laterborn children are dependent and negative.

Father (c)

> My three daughters have different personalities, the eldest is independent, the middle is good, but the youngest is dependent and worse than her sisters. The firstborn child is independent and enthusiastic, the laterborn is wilful.

These latter parental comments were borne out by the remarks of the middle daughter about her younger sister.

Student (c)

> My older sister is independent now she is in the U.S. My younger sister does not like to go to school. So my mother always says 'why are you not the same as your older sister'.

Mother (e)

> The firstborn children are like a sponge; they learn everything very quickly, but the laterborn is opposite.

Father (e)

> The firstborn child does every thing very quickly, but the youngest is very slow.

Father (g)

> The firstborn children are honest and sincere, the laterborn children are wilful.

Mother (h)

> My three children are different, the firstborn children are more independent and can take care of their siblings. The laterborn children are dependent and need someone to care of them.

Mother (j)

> The firstborn child is independent and cares about other persons, the laterborn is dependent.

Father (j)

> My son shows every consideration to his [younger] sister.

Asked to explain whether they treated their children differently according to their birth order, two mothers explained how they tried to adopt the same approach to their children.

Mother (a)

> When I had my daughter [first child], I did not have any experience about taking care of children, although I taught in high school. There are differences between my own child and students. I read many books but still felt much pressure. But when I had my son, I had more experience. So, my daughter always says that I put more pressure on her than her younger brother. In fact, I do not know whether I put pressure on her or not. But I try to treat them with the

same attitude.

Mother (e)

> Although my two children are different, I do my best to treat them with the same attitude.

A father indicated that he and his wife treated their children differently because of their different personalities.

Father (d)

> We always give the two children different treatment, because we think not only that there are differences between the firstborn and laterborn children, [but also] the different children always have their own different personality. So I always treat them in different ways depending on the different situation.

One father did recognize that there were differences in the way he interacted with his two children.

Father (b)

> Because my son is older than my daughter, when they were little, I liked to say that 'you are an older brother, you need to' ... I admit sometimes I like my daughter more than my son. But I try to do everything with the same attitude.

It is worth noticing that none of the lower status parents responded to this question in the interviews. That is, they indicated that they preferred not to offer an opinion about the influence of birth order position.

Sibling structure differences

School data

Statements from the majority of the teachers reinforced the view that firstborn children differed from their siblings. One principal referred to her own family

experiences in claiming:

Principal (a)

> Firstborn children are more independent, the youngest is more dependent. I have two sons, the older son is very independent and can take care of his younger brother. Before the younger son does anything at all he needs to ask his mother, until now when he is already a university student.

Teacher (a)

> The firstborn children are more independent than the laterborn children.

Teacher (c)

> The firstborn child is independent and cares for the other students.

Teacher (d)

> The firstborn child is independent, the middle child often will be ignored and the youngest is dependent

Teacher (g)

> The firstborn children have more pressure, and have more responsibility and are independent. The youngest child has more love from their parents, they tend to be dependent.

Teacher (h)

> Firstborn children find it easy to be a leader in a group and be independent. The youngest often need to ask someone's opinion.

There was one teacher who considered that:

Teacher (f)

> There is nothing special between firstborn children and laterborn children.

Two other teachers pointed to the critical importance of patterns of parenting in children's upbringing.

Teacher (b)

> It is because of parenting methods, they easily forgive the youngest.

Teacher (e)

> There are no differences; it depends on the parents' teaching methods.

There was an interesting comment from one teacher on the increasing occurrence of only children and the consequences of that in classroom behavior.

Teacher (c)

> But now in Taiwan many couples have only one child, who often does not know how to share with the other classmates. Sometimes, their relationships with classmates are not good.

Principal (b) explained her personal situation:

> For me, I treat my three children with the same attitude. My older daughter is smart and responsible. She knows that I am busy, she tries to do everything by herself and for her younger brother and sister. In this situation, I treat her not only as my daughter, but sometimes she is my friend.

Teacher (c) indicated further that:

> Parents often give firstborn children more pressure and responsibilities; sometimes parents are not aware of their attitude toward their children. One reason is that when they had the first child, they did not have any experience. So, they tend to place their hopes in their children. The other reason is that when they had the first child they compared it to other children. That is why most firstborn children have more pressure and responsibilities than the laterborn children.

Principal (a) indicated, however, that:

> There is a tendency to treat the firstborn children more strictly and give them more responsibilities. For laterborn children, parents

> easily forgive their careless behavior. Parents tend to attend school more often when the children are in lower grades, because they and their children do not have any experience in school learning. In fact, parents do not care about the birth order.

These last comments were elaborated further in Teacher (a)'s statement:

> Parents attend school activities not because of their children's birth order. Indeed, when their children go to school in first grade, both parents and children do not have any experience and also feel a little nervous. As a result, parents often go to school and communicate with teachers. When children are more mature, parents have many experiences of their children's education. They would like to decrease attending school functions. The key point is children's age not their birth order or gender, because parents considered their children were getting older and more mature and then they need to be independent.

Generally, the interview data suggested that in middle social status families, sibling structure had a modest impact on how parents, teachers, and principals perceived children. The findings suggested the proposition that firstborn children were perceived to be more independent, while laterborn children were perceived to be more dependent.

Gender differences

Family data

The family structure most commonly found in Taiwan is clearly explained in the comments of one the parents.

Mother (a)

> In Taiwan most parents have one or two children. They do not care whether their children are boys or girls, as a result, they treat boys and girls with the same attitude.

Asked if they treated their sons and daughters differently, two parents supported the view of mother (a) indicating that they treated their children the same, whatever their gender.

Mother (b)

> There is no difference between my son and daughter, but that may depend on parents' educational methods.

Father (b)

> I try to treat my son and daughter with the same attitude.

Father (b), however, did admit to feeling closer to his daughter:

> Sometimes I feel I treat my daughter better than my son, because she is lovely and cute. In addition, she always does her own thing very well ... In fact, my son is also good, studying hard and has a good relationship with his classmates and teacher.

This comment was reinforced by the son, who claimed:

Student (b)

> Sometimes I feel my father likes my younger sister more than me. But most of the time I feel they treat us with the same attitude.

The other student who replied to this question, said:

Student (a)

I do not feel there is any difference in our parents' treatment of my brother and myself.

When asked if there were any differences between boys and girls, three of middle status parents focused on differences in learning abilities. Both parents from family (a) expressed the view that:

> Boys are good at mathematics and natural science; girls are good at literature.

Another mother had the same opinion.

Mother (c)

> Girls are quiet and good at language and literature, boys are good at mathematics and calculation.

The other middle status parents focused more on differences in personality traits between their sons and daughters.

Father (b)

> My son is generous, my daughter works hard and positively.

Mother (b)

> Boys are mischievous and vigorous, girls are quiet and positive.

Mother (e)

> My daughter likes to play every kind of sport. She can do anything by herself. My son is dependent.

For the parents of lower status families, they also referred to differences in personality traits and learning abilities in their children.

Mother (f)

> Girls do everything more carefully than boys. In addition, girls are clever and cute, boys are mischievous.

Mother (g)

> I have two daughters, I think they are so cute and independent. Sometimes I see that my friends' sons are naughty and noisy.

Mother (j)

> My son can take care of his young sister and is smart. My daughter is arrogant.

Student (b) suggested definite gender differences in learning and personality characteristics:

> Boys are good at mathematics, calculation, science and extrovert, naughty, like to help the other classmates and like any kind of games and sports. Girls are good at Chinese language literature, memory and are quiet, and like to help teachers to do something, and are clean and neat.

Gender differences

School data

One principal and teachers from all schools perceived differences between the boys and girls in their classes. Their comments focused both on learning abilities and personality traits. Some were balanced in their evaluation of the particular strengths of each gender.

Principal (a)

> Girls are lovely, clean, neat and hard working. Boys, on the other hand, are vigorous, active and naughty. However, in academic achievement I think that girls and boys are the same.

Teacher (a)

> Girls have more responsibilities than boys. In academic achievement, girls have better marks than the boys. But boys are good at sports.

Teacher (b)

> Girls are quiet, have stable emotion and study hard. In addition, girls are good at memory and language. Boys are good at calculation and mathematics.

Teacher (h)

> Girls are good at literature, art and performance. Boys are good at sports and mathematics.

Other teachers revealed a preference for the girls in the classes.

Teacher (c)

> Although I feel there are no differences in intelligence, boys easily forget to bring something to school and sometimes are careless compared to the girls.

Teacher (e)

> Girls like to help teachers to do something. And they are careful.

Teacher (f)

> Most girls work hard, and are clean and neat.

Teacher (g)

> Girls are good at literature, language and decorating the classroom. Boys are careless and have more energy.

Only one teacher expressed a dissenting view, claiming that other factors also needed to be considered.

Teacher (d)

> There are differences which depend on the different personality and birth order. Sometimes firstborn girls are different from the laterborn girls. So it's hard to say.

One male principal, drawing on experiences within his own family, felt that parental upbringing was also a factor.

Principal (c)

> Such differences depend on the parents' educational methods. Some parents pay attention to daughters, such as their manner and their safety, which cause daughters sometimes to be afraid of doing anything. I have two daughters I give them more chances to do things that they like to do. My firstborn daughter is studying in National Taiwan University and majors in law. She has confidence and is independent. The younger daughter is good at art. She has many awards from primary school.

There were three teachers who provided insightful comments on changing parental attitudes to sons and daughters in Taiwan.

Teacher (c)

> I feel recent parents have only one or two children. They do not care whether it is boy or girl. Sometimes, they like girls more than boys, because parents feel girls are lovely, caring and more likely to live with parents, even though they are married [In Taiwan, still there are some parents who like to live with their sons or daughters, even though they are already married].

Teacher (d)

> In my class, I find some parents pay more attention to girls. For boys, they easily forgive their bad behavior. But in school achievement, I feel now parents treat girls and boys with the same attitude. We can see there are more females who have good achievement in our society, such as, in Taichung primary schools, there are many female principals now. I find now parents' thinking is different than in the past. In my class, there are some parents who just have only one or two daughters.

In contrast, one male teacher from a primary school in a lower social status suburb, felt that the old attitudes were still evident among some parents.

Teacher (h)

> Now most parents treat their girls and boys with the same attitude. But sometimes, in our parent-teacher meetings, there are still some parents who ask for their boys to have better academic achievement than girls, because they still feel that girls will marry and become housewives or become someone's wife. Boys need to get high degree and have a good job.

In general, the interviews indicated that gender had a modest relationship with the perceptions of parents, teachers, and principals. The findings suggested that they perceived learning ability and personality characteristic differences between boys

and girls. Generally, girls were perceived to have positive qualities such as being clean, quiet, and neat, whereas boys were often perceived as being good at mathematics and as being more boisterous in their behaviors.

Conclusion

The comments of parents, children, principals, and teachers provided useful insights into the way Taiwanese families regard sibling structure and gender differences among their children. Some parents did reveal that they favored one child rather than another. The choices appeared to be based on personality characteristics, rather than on gender or birth order. There was little evidence that parents had higher aspirations for firstborn children or for their sons. In addition, there were no real suggestions that greater educational support or help in learning was provided to firstborn as against laterborn children, or to boys as against girls. Typically, middle social status parents considered that firstborn children were more independent than laterborn children. In addition, the data suggested that girls were considered to have qualities such as being cute, neat, clean, and being good at language-based subjects, whereas boys were perceived to be more boisterous and better at mathematics. Overall, the findings provided little support, however, for Hypothesis 3, that measures of family structure are related to parents' aspirations and to their involvement in their children's education.

In the following chapter, I explore issues related to perceptions of school learning environments, and the school-related outcomes of children from middle and lower social status families.

CHAPTER 7

QUALITATIVE RESULTS (3)

PERCEPTIONS OF SCHOOL ENVIRONMENTS AND CHILDREN'S SCHOOL OUTCOMES

In this chapter I use the qualitative data to examine hypotheses 4 to 7. While the children are the primary subject of these hypotheses, I also present information that relates to the hypotheses from parents and school personnel. Following the pattern of presentation in chapters 5 and 6, the interview data in this chapter are presented in two sections – one for middle social status families and school data, the second for lower social status families and school data.

Hypothesis 4: Children whose parents have high aspirations and who are highly involved at home and in school, perceive their school environment more favourably.

Middle social status

Family data

Children from middle social status backgrounds described their school environment positively in terms of abundant resources, fine facilities, good policies, and supportive teachers.

Student (a)

> Our school is near the National Natural Science Museum, and we often go there to collect data and do science experiments. Sometimes there are special exhibitions, and our teacher takes us to see them. In addition, my teacher is very good; she works hard and treats us very patiently.

Student (b)

> Our school has a big playground; it is good, because in Taichung city, many primary schools are very small. In addition, opening the door to welcome parents to come into the school is a good policy.

Student (e)

> Our school is a new school, so we have new classrooms, new playground, and new computers and new instruments. I feel I am very lucky to use this new equipment. Most of our teachers are very young, so we have many out of school activities. I like them.

Student (c)

> Teachers are very good, although my third grade teacher always gave us too much homework that was very boring. But now my teacher gives us homework that is very interesting, although sometimes we need to search for information and collect data, but I feel it is better than before.

Student (d)

> My teacher is very nice and works hard. She always knows how to give us interesting classes and homework. But sometimes she easily loses her temper.

The following data relate to school learning environments as perceived by parents, principals, and teachers. When asked to comment on the most positive aspects of the school learning environment for their children, two parents from middle social status background claimed that today's teachers were expected to behave very differently from teachers in the past.

Mother (a)

> Some of the teachers are very conservative. I mean those teachers who want to close the classroom and teach students by their own way, they do not like parents to go into the school or classroom. Because of educational reforms, those teachers need to change their minds to welcome parents to come into the school or classroom. In fact, parents can be a positive power for teachers. Provided that teachers have their own teaching method and plan, I believe parents and teachers can maintain good relationships. In addition, parents can provide support to teachers.

Mother (d)

> I feel now that teachers are different from the past. They have new teaching methods and skills, such as I teach Chinese idioms in my daughter's class in the morning. I feel my daughter's teacher is very good. She spends much time collecting additional material to support her teaching. So I feel teachers are getting better.

Two other parents stated that there were good interactions between their children, themselves, and teachers in the school.

Father (b)

> Parents and teachers have good interactions and relationships in my children's school. My children's teacher has much experience in teaching. She knows how to teach and keeps good relationships with children and parents. I always see that she works hard. Even after school, she still stays in the classroom to handle class matters.

Mother (b)

> Parents and teachers have good cooperation in my children's school. If teachers open their mind and welcome parents, it is good for teachers and students, because parents have many resources that can be provided to the school and classroom.

One mother, who was teaching in a primary school, expressed the view that teachers had more pressure from parents and principals.

Mother (e)

> I think teaching in primary school is more complicated – I have more pressure. For me, I am a mother and also a teacher, so I can understand parents' expectations and the teachers' situation. I try my best to support my daughter's teacher. On the other hand, I tell myself I need to receive the parents' suggestion and comments. Sometimes I feel very stressed.

Another mother described the differences between her two daughters' teachers and the advantages of a principal who was positive.

Mother (c)

> My younger daughter's teacher is more open minded than my second daughter's teacher. Moreover, I feel the principal is better than before, I mean she likes to talk with parents, and sometimes she can accept parents' suggestions. In addition, there are some good seminars in the school just for parents. I think that it is good for parents to understand how to interact with children or how to supervise their homework and sometimes also be introduced to the latest educational policy.

School data

Principal (a) described in some detail his school's involvement with parents.

> Our school is the first school that has the parental involvement project; our teachers have many experiences in relation to it. Other teachers often come to our school to collect information and obtain some experiences from our teachers. As a result, some teachers in our school consider attending some programs or courses to improve their own knowledge and skills. In addition, some parents transfer their children to our school, because they are interested in parental involvement. Some parents do their best to support their teachers and the school's functions.

The other principal and all the teachers from the inner city area primary schools, focused on the good relationships that existed between colleagues and with the principal in their schools.

Principal (b)

> I feel that there are many good teachers in our school. They like to attend new training courses and obtain new information. In addition, they like to share their own teaching materials. Sometimes, they plan some activities in the weekend or the holidays, such as observing special birds, and attending activities in the National Science Museum and some art exhibitions.

Teacher (a)

> The best aspect of our school is the relationship with colleagues; we have good relationships and can share teaching materials and teaching experiences. And the principal also gives us more power and authority to plan our own programs.

Teacher (b)

> Teachers have good relationships with each other; our school is the first school to have parental involvement. As a result, our teachers have many experiences about it. Sometimes, we will share our own materials or documents with each other. Sometimes, we go to the same excursion destination on the same day.

Teacher (c)

> We have good relationships between colleagues. Our principal is very smart, she knows how to let teachers have good co-operation and to achieve the best results. In addition, we are getting more parents who know how to contribute their knowledge and time to help teachers and children.

Teacher (d)

> Our principal treats teachers, students and parents very well, he lets teachers have their own space and teaching plan.

Teacher (a) described her school's use of nearby community resources.

> Our school is near the Chinese Traditional Medicine University, the National Natural Science Museum and the Botanic Park. As a result, we have abundant resources.

Interview data revealed that most parents and students in middle social status families had positive perceptions of school environments. Those aspects included the school's physical environment, teachers' attitudes to students and teaching methods, principals' leadership strategies, and the relationships among children, parents and teachers. In addition, principals and teachers in the two schools, (a) and (b), indicated

that there were good relationships between teachers and parents.

Lower social status

Family data

The interview data from the lower social status parents and students tended not to be as detailed about school environments, as were those from middle social status families. Three children focused on the teachers.

Students (f)

> I have several good teachers in the school.

Student (h)

> My teacher is very young, she likes natural science. We often go to the National Natural Science Museum. She thinks that we can make some simple natural science experiments by ourselves. It is more interesting than reading.

Student (i)

> My teacher is good at sports and arts. He teaches us how to play several kind of ball games and to make crafts. I like art classes.

One student mentioned the range of activities available in his school.

Student (j)

> We have many traditional activities in our school, such as traditional martial arts. Our teachers are very young; they have many new ideas. For example, in some festivals they design some programs. They are very interesting.

Another student indicated that:

Student (g)

> My school is very small. We do not have any playground. Sometimes we need to have physical education in the classroom.

When lower social status parents were asked about school learning environments, they all commented on the new approaches to teaching, but recognized that this often meant more pressure as well.

Mother (j)

> Sometimes I participate in my son's school activities; there are a variety of activities in my children's school. So I feel now teachers and principals are different from before. They need to accept more challenges than in the past.

Two other parents felt that the new approaches were confusing for parents.

Mother (f)

> Teachers are not the same as before, they do their best to make the teaching activities lively, not the same as in the past, when students just sat in the classroom and listened to the teachers. In contrast, now teachers give students more 'living' knowledge. As a result, when children want to do their homework, they need to search for data and information through a variety of methods. In addition, some educational reforms are very good, such as opening the door to welcome parents. But some of the educational policies are not good, such as the new mathematics teaching methods and some high school and university entrance policies. Those policies make us confused and nervous.

Mother (i)

> In the past when I was a primary school student, I felt school life was simple and boring, we just sat in the classroom and listened to the teacher. But now I often receive a note from my children's school, there are many activities which need to be supported by parents. I feel my children's school life is more interesting, but I believe teachers have more pressure. On the other hand, parents also got some pressure from teachers and children.

School data

Teachers, from the lower social status suburbs, expressed the view that they had a good principal and colleagues. Their comments are short and direct, focusing mainly on teacher co-operation.

Teacher (e)

> Teachers are all young, so they could communicate and cooperate easily.

Teacher (f)

> Teachers could help each other and we have a good principal.

Teacher (g)

> Our school teachers work hard and parents are getting better now.

Teacher (h)

> Our principal is democratic. In addition, if he has some new information and knowledge, he will provide those to us.

Principal (d) who was from a newly established school, stated:

> Our school has good new facilities; I feel that such equipment and resources are most important.

Another principal claimed that the most important aspect of his school was what he called:

Principal (c)

> The interaction between colleagues, and specifically between young teachers and innocent children [in contrast to what he called the sophisticated children of the inner city schools].

It is interesting to note that most parents and children in lower social status families suggested a constructive school ethos with young and active teachers, and a variety of activities in their schools. In addition, principals and teachers in the two surrounding suburb schools tended to restrict their remarks to the fact that there were good relations between teachers and they had young teachers and good students.

Summary

The middle social status children perceived a variety of advantages in their school learning environments, including abundant resources, fine facilities, good policies, and supportive teachers. The comments of parents and teachers in the middle social status group strongly supported the children's views. In contrast, lower social status students tended to focus their comments on good teachers. The restricted nature of the responses was one of the most stricking features of the data gathered from both students and teachers in the lower social status group. Middle social status children may have perceived their schools to have more resources than the lower social status children, but those latter students perceived their teachers quite favourably. That is, the interview data provided only limited support for the hypothesis that: Children whose parents have high aspirations and who are highly involved at home and in school, perceive their school environment more favourably.

Hypotheses 5 and 7

Hypotheses 5 and 7, focused on children's academic achievement, aspirations, and affective outcomes. The interview data did not provide direct corroborative evidence for the correlations among the variables in the hypotheses but rather provided an understanding to what these outcome variables meant in the every day life of respondents from the two social status groups. As a result, I deal with these

hypotheses as an interrelated set to be examined. There were no data, however, that could allow an investigation of the relationship between family structure and school-related outcomes.

Hypothesis 5: Children in middle social status families have higher academic achievement, stronger aspirations, and more positive affective outcomes than do children from lower social status families.

Hypothesis 7: Children who perceive that their parents have high aspirations and are involved in their education and who perceive their school favourably, have higher academic achievement, stronger aspirations, and more affective outcomes, than do children who have less positive perceptions.

It should be noted that hypothesis 8, which also includes these outcomes variables, was not included in the qualitative analysis, as it was chiefly concerned with the nature of the statistical relationships in the theoretical model of the study.

Middle social status children

Children's aspirations

All students from middle social status families explained that they wanted to go to university or graduate school. Their comments also included details about their parents' expectations and the achievements of other family members.

Student (a)

> My parents both have higher degrees; I hope I can go to graduate school. In addition, my parents always tell us that the degree is still very important. If my younger brother and I have a higher degree, it means we can easily choose a job in the future.

Student (b)

> My parents think marks are very important because if my younger sister and I have good marks in the primary school, we can easily pass the examination of the private junior high school. As a result, we can also easily go to university. In fact, I can understand my parents who spend a lot of time accompanying us and hoping we can achieve good results in the future. Although sometimes I hate to do so many additional tests, it may be good for our future.

Student (c)

> My mother wants my younger sister and me to go the U.S., because my elder sister is studying there. I hope I can achieve good academic results and go to the U.S. My elder sister says that there is less homework in the U.S. and more activities there. I hope I can go to the U.S.

Student (e)

> My mother is a primary school teacher and thinks that educational background is very important. She hopes I can go to the Teachers College or Normal University. For me, I think to be a teacher is not bad, because my mother has a summer vacation and a winter vacation.

Asked about what kinds of occupations they wanted to have, three of the five children from middle social status families already knew what profession they wanted to achieve.

Student (a)

> I would like to be a doctor, because my father is a doctor. My parents hope that my younger brother or I can go to medical school and be a doctor. They always say that doctors have a good reputation. But if I have the other choice, I would like to be a writer or designer, because I like to write and design. I often write articles and stories, sometimes I also draw the picture in my stories. My teachers and classmates like to read my stories. Perhaps I can be a doctor and write stories in my spare time.

Student (b)

> I plan to be a doctor, because I can make much money. I feel that money is very important. My grandfather gave my father much money, as a result, my father has much time to do his favourite things, such as taking us to school, playing tennis and attending English courses. But I would like to be a doctor, because patients need to listen to my advice. I would feel that I am very important for them.

Student (e)

> I want to be a teacher, because I see my mother's day to day life is good. She can have her own job and can take care of my younger sister and me. Although I feel sometimes I have many pressure from my mother, I still hope I can pass the examination for Teachers College.

The other two students from middle social status families were not yet sure what career they wanted to follow. One, however, was aware of what his parents wanted.

Student (c)

> Now I do not know, it depends on what school I can attend. Perhaps I will be a doctor (that is my parents' hope).

Lower social status children

Children's aspirations

All the students from lower social status families made the statement that they wanted to go to university. Only two, however, discussed in any detail what that might mean for themselves and their families.

Student (j)

> I hope I can go to university. I would like to be a writer. But my parents said that if I can write a novel the same as 'Harry Potter', then that is not bad. It can make much money. My parents always say that they hope my younger sister and I can have higher degrees and good jobs in the future.

On the other hand, one student gave an indication of how difficult it would be for his parents to send him to university.

Student (f)

> I want to go to university, but because only mother is working, I am afraid that she could not afford it. My aunty says that if my younger brother and I can pass the entrance examination to public universities, she will support us to go to the university.

The occupational aspirations of these last two respondents were consistent with the above statements. Student (j) claimed he wanted to be a writer. In contrast, Student (f) stressed that he would like to be a certified accountant (the same as his uncle), because then he could make much money and have a good reputation.

Another student expressed the view that she would like to be a teacher.

Student (i)

> I would like to be a teacher, because I can teach my students many kinds of things. I feel that is a good experience. I addition, my parents always say that a teaching job is very suitable for girls, because teachers have a stable salary and can take care of their families.

The other students explained that they had not yet decided what career they would have after learning school.

Summary

Children from middle social status families and lower social status families both expressed that they would like to get higher degrees and have good occupations in the future. Middle social status children appeared, however, to be more certain about their aspirations and tended to have occupational aspirations that they felt would be

supported by parents. In addition, while the lower social status students often had high educational aspirations, they tended to be related to lower levels of the professional occupational hierarchy. That is, the qualitative data provided support for the quantitative analysis that there were social status differences in the nature of the aspirations of the children. Middle status children, in general, aspired to very high status professional positions, whereas lower status children had high, but more modest professional aspirations.

In the following section I examine what students, parents, and school personnel considered about other school-related outcomes.

Middle social status

School-related outcomes: family data

As part of the interview, all respondents were asked to comment on the relative importance of academic achievement as against affective outcomes in school learning.

One student indicated that both academic and affective outcomes were important.

Student (b)

> I feel that both are very important, each aspect is good. They are the mark of a good student.

The other students, however, claimed that affective outcomes were more important than academic achievement.

Student (a)

> Friendship, peer interaction and confidence are more important than academic achievement, because if students have good grades but no friends, they would be pitiable.

Student (c)

> Peer-acceptance is more important. Good grades enable one to attend a good school, but if there are no friends, it is too bad.

Student (d)

> A good child needs to have good behavior, then he/she can adapt to future life. Psychological adaptation for children is important.

Student (e)

> Every person needs to have good friends, so I feel that peer acceptance is the most important. Positive self-concept is also important. Sometimes I do not have positive self-concept. Such as last semester my teacher thought I had good Chinese speech ability. She wanted me to attend a contest, but I felt my ability was not good enough. I did not want to attend the contest, but my mother encouraged me to participate it. So I think a positive self-concept is very important.

Most parents claimed that both academic achievement and affective outcomes were important and inter-related.

Mother (a)

> If children have good relationships with their peers and have confidence and positive affective orientations then that is important, but I think that academic achievement is good as well.

Father (b)

> I think that academic and affective achievements are both important. In the past, academic achievement just meant 'marks', but teachers' teaching method is not the same as before. Such as my son's teacher often gives students different kinds of homework to do. As a result, my son can do very good reports and often attends some contests, such as the traditional opera contest. I believe that academic achievement is very important for our society, because if my children have good academic achievement then they can easily pass the examination of a private junior school. In addition, they have more opportunities to go to university. Educational background is still

important in our society. On the other hand, I admit that affective achievement is also important; children need to have good relationships with their classmates and have a positive self-concept, and psychological adaptation. But I still believe if children have good academic achievement, then they will also have good affective achievement.

Mother (b)

Children need to have good interactions with their friends, positive self-concept, and psychological adaptation. But they also need to have good academic achievement.

Mother (e)

Academic achievement not only includes Chinese language, mathematics, social science and natural science, but also includes their behavior in the school and at home, and how to co-operate in their classroom. So I feel the academic and affective achievement are both important.

Father (e)

Both are important, there is no conflict between academic achievement and affective achievement. To be a good boy or a good girl, they need to have good academic achievement and affective achievement. Sometimes it is hard to say which is the most important, I feel that both are important, especially in the modern society.

One father, however, described his own experiences, and as justification for claiming that affective achievement was more important than academic outcomes.

Father (a)

I think my daughter is a good girl. She has excellent academic achievement, but she is too quiet, so I think self-concept for her is more important than academic achievement. For other children, I think affective achievement is more important than academic achievement. For example, when I was young, my parents asked that I have a high mark in every subject. Yes, I was almost able to

> achieve a high mark in every subject, so now I am a doctor, but I was not happy in my school life. As a result, I want my children have a happy life when they still are young.

Similar comments were made by other parents.

School-related outcomes: school data

Both the principals from the inner city area claimed that affective outcomes were more important than academic achievement.

Principal (a)

> Affective achievement is more important than academic achievement. Children need to have good affective achievement, such as good interaction with peers, more confidence, and positive self-concept.

Principal (b)

> I believe that affective achievement is more important than academic achievement, now is not the same as the past. A degree does not mean everything. We can easily find that there are more young students who do not have good marks at academic achievement, but still find their own 'world'. For instance, there was a young boy who did not have good academic achievement and even quit his study. But he is good at computer games. Last year he was the champion for computer games in an international competition. And now our Education Ministry wants to make a computer game course in special education. As a result, in my opinion, sometimes, parents need to respect children's decisions.

Two of the teachers agreed that affective outcomes were more important than academic achievement.

Teacher (b)

> I feel both are important, but affective achievement is more important than academic achievement. Now is not the same as before; a degree is important but ability is also important. I found some people who have good degrees but do not know how to interact with people, it will be a big problem. So I hope my students have good peer acceptance, and positive self-concept.

Teacher (c)

> Now is not the same as the past, affective achievement is more important than academic achievement, because society is changeable and getting complicated, not only children getting a higher degree can have good future. In addition, if students only have higher grades in academic achievement but do not know how to interact with classmates or share with peers, it will be a big problem in the future. Students need to adapt to the society of the future, the school is just like a small society, and children need to learn how to interact with their classmates and how to adapt to new programs. One day they will go into society, they need to adapt easily to the society. So parents need to change their thinking, now is not the same as before, academic achievement is not the only thing for children.

The other teachers, however, indicated that both outcomes were important.

Teacher (a)

> I think both are important. For my children I hope they have higher educational background, that is they need to pass the entrance examination of university. As a result, they need to have good academic achievement then they can pass the examination. On the other hand, affective achievement is also important, children need to have positive self-concept and peer-acceptance.

Teacher (d)

> Affective achievement is becoming important, it is true, but academic achievement is also important. Especially, teachers are now trying to change their teaching methods. As a result, academic achievement does not just mean marks. Sometimes it means children's knowledge and intelligence. I feel children need to have good academic and affective achievement.

Lower social status

School-related outcomes: family data

Two students from lower social status background stated academic and affective outcomes were both important.

Student (f)

> I think both are important. Students need to have good academic achievement and they also need to have many friends and good affective achievement.

Student (i)

> I think that good boys need to have good academic and affective achievement.

The other students thought that affective achievement was more important.

Student (g)

> To be a good person is more important than school grades.

Student (h)

> Peer-acceptance and self-concept are important for students.

Student (j)

> It is getting to be that there are more bad younger students doing bad things in our society. My parents always say that the secondary schools have problems. So I think academic achievement is not the only thing I need to deal with.

Repeated in the students' comments was the perception that being "good" as opposed to being "bad" was the most important ideal to be aimed for. Three of the lower social status parents stated that affective achievement was more important than academic achievement. Their comments also demonstrated a concern for the moral dimensions of their children's development and a fear that their children might be caught up in the patterns of bad behavior that were emerging among some young people in Taiwan.

Mother (h)

> Good behavior is more important than academic achievement. I can see some children who have higher academic achievement in the

school, but they do not know how to interact with their classmates and sometimes they are selfish. So I hope that my children have good affective achievement.

Mother (i)

Fundamental morality is more important. Now in Taiwan there are some abnormal behaviors happening in young people, such as suicide, stealing, and some behaviors which you can not imagine. So I admit the educational background is very important but good behavior is more important than academic achievement.

Mother (j)

I want my children not to become bad boys, because there are more young people becoming drug addicts or attending underworld gangs. So I hope my children have a stable life in the future, that is all.

School-related outcome: school data

One principal gave his opinion:

Principal (c)

I think both are important, but parents and teachers should not just focus on marks. That will put many pressures on children. So children need to have good relationships with their friends and positive self-concept at first, then parents and teachers can improve the children's academic achievement.

The other principal also claimed the good relations were very important.

Principal (d)

Now is not the same as before. Good relationships with people are very important. I find in our school, many students who do not have higher academic grades, have good interaction with classmates and a positive self-concept. The most important thing is they are very happy. I think it is the most important.

Three of the teachers were of the view that academic and affective outcomes go hand in hand and should be developed together.

Teacher (e)

> If children can have higher academic achievement and good affective achievement, it is the best. I think that affective achievement is more important than academic achievement.

Teacher (f)

> Both are important. You need to admit that degrees are still important in Taiwan. But for children, peer-acceptance and positive self-concept are also important.

Teacher (g)

> For little children, peer acceptance is very important. But sometimes I find children with higher academic achievement also have more friends. May be these two achievements have a high correlation. Because I find many students who have higher academic achievement also have good affective achievement.

The other teacher gave details of the importance of affective development in his experiences.

Teacher (h)

> I feel children need to have positive self-concept and good relationships with classmates. Sometimes academic achievement is not so important. For me, I did not have very good academic achievement in primary school. But it was getting better, when I was in junior high school.

Summary

The qualitative findings, did not directly assess the relationship between social status and scores on academic and affective outcomes. Instead, when the students were confronted with general questions about school outcomes, they provided quite sophisticated responses comparing the relative value of the outcomes. Children from the two social status groups generally suggested that academic and affective

outcomes were both important. There were a number of children, parents, and school personnel who suggested that while both were important, affective outcomes were more important than academic achievement. The quantitative results suggested that the relationships between family social status and children's school outcomes were mediated, or partially mediated, by measures of family and school learning environments. That is, while the quantitative analysis might have indicated social status variations in the nature of differences in the scores on academic and affective outcomes, the qualitative analysis suggested that there were few overall family status differences in how children perceived the importance of different outcomes.

Conclusion

The analysis of the qualitative data in Chapters 5 to 7, indicated that between middle social status parents and schools there was a partnership developed for the educational benefit of the children. In contrast, for lower social status parents there was more of a separation, with parents expecting teachers, to teach their children. Middle social status parents tended to have higher aspirations and were more involved in their children's education, at home and in school, than were lower social status parents. Also, mothers (especially those from middle social status families) were more involved in their children's education than were fathers. Typically, parents of middle social status had higher aspirations and were more involved in their children's education, than were parents of lower social status.

The qualitative findings indicated few family structure and gender differences in how parents treated their children. Middle social status parents did tend to consider that firstborn children were more independent than laterborn children. In addition, the interviews suggested that girls were considered to have qualities such as being cute, neat, clean, and being good at language-based subjects, whereas boys were perceived

to be more boisterous and better at mathematics.

In the final set of analyses, the interview data suggested that most children perceived their school environments favourably. In addition, while most children had quite high educational and occupational aspirations, middle social status children aspired to particularly high status positions whereas lower social status children had more modest professional aspirations. Finally, there were few social status differences in how children, parents, and school personnel considered the importance of academic and affective outcomes of schooling. While some of the respondents considered them of equal importance, others emphasized one orientation over the other.

That is, the qualitative analyses enriched the quantitative investigations and in the final chapter I present the findings from the two sets of analyses.

CHAPTER 8

CONCLUSION

The purpose of this study was to examine relationships among parental involvement in children's schooling, school learning environments, and the school-related outcomes of students from different social status backgrounds. For the analysis, I constructed a theoretical model that suggested possible relationships among family social status, family structure, parental involvement, classroom learning environments, and students' outcomes. The model suggests that intervening intermediate and immediate family and school contexts mediate, or partially mediate, the effects of distal family contexts on students' academic achievement, self-concept, aspirations, peer acceptance, and psychological adaptation. From the model, I generated a number of hypotheses that I examined using quantitative and qualitative data. In the initial section of this chapter, I present the results of those investigations in relation to each hypothesis.

(a) Testing of the hypotheses

Hypothesis 1: Mothers are more involved in their children's education than are fathers.

The quantitative analysis of the hypothesis indicated that for both boys and girls, mothers had significantly higher involvement at home and involvement in school mean scores than did fathers. That is, mothers were perceived by their daughters and sons to be more actively involved in their education at home and in school than were their fathers.

The qualitative investigation showed that mothers (especially those from middle social status families) were more likely to be involved in their children's education than were fathers.

That is, the two sets of analyses provided tentative support for Hypothesis 1. The findings are consistent with investigations, which suggest, for example, "virtually all the parental involvement in cooperative initiatives with schools relates to mothers: parents' power means, 'mother power'" (CERI, 1997, p. 56). In addition, West and Noden (1998) indicate "mothers generally assume overriding responsibility for their children's education. Furthermore, mothers with higher levels of education are more likely to use workbooks and employ private tutors to support their children's education; attendance at parents' evenings and informal discussion with teachers" (p. 1). In an analysis by Nord, Brimhall, and West (1997), they suggest that in two biological-parent families, mothers are more likely to be involved in their children's school education than are fathers.

Hypothesis 2: Parents of middle social status have higher aspirations and are more involved in their children's education, than are parents of lower social status.

The quantitative analysis indicated that for boys and girls, family social status had large associations with fathers' and mothers' aspirations. In addition, family social status had medium associations with parents' involvement in school, while family social status had a small significant association with mothers' involvement at home for their sons.

The interviews indicated that parents from both middle and lower social status backgrounds had quite high aspirations for their children. A greater number of the middle status parents, however, wanted their children to go to university, than did lower social status group parents. The difference in parental aspirations may be understood in terms of opportunities for university study that are available for children from the two social groups. Children from lower status families in Taiwan are generally only able to attend university if they do well at the entrance examinations for the National University, where fees are comparatively low. Children of middle social status families, however, tend to expect their parents to pay the high fees charged by private universities.

The responses from the interviews, provided more support for the proposition that parents' social status is related to their level of involvement in children's schooling. Generally, middle social status parents had greater resources (e.g., time and knowledge) to comply with teachers' requests for parental participation. These parents also indicated the importance of education for their children and their interest in their children's learning, even when they could not attend school activities. In contrast, lower social status parents with little education, had less knowledge about their children's education and had limited time to participate in their children's learning. Although they expressed a general recognition of the importance of education, they were not able to provide the level of personal support and understanding of learning issues that was evident among the middle status parents.

The interviews also indicated how students, principals, and teachers had different perceptions of parental involvement in children's learning at home and in school. In particular, children from middle social status families indicated that their parents

were more likely to participate in school activities and to support their learning at home, than did children from lower social status families. Furthermore, principals and teachers from inner city middle social status schools indicated that parents were more interested in their children's learning at home and in school, than were parents from the lower social status suburb schools. In addition, the comments of teachers from the suburb schools provided important insights into recent curriculum and teaching changes, that made it difficult for parents to provide help to their children.

That is, the analyses provided initial support for Hypothesis 2: while parents from middle and lower social status families expressed positive aspirations, it was the middle social status parents who became more involved in their children's education. These findings are consistent with investigations which have indicated that parents of middle social status are more likely to be involved in their children's schooling than are parents of lower social status (e.g., Ho & Willms, 1996; Lareau 1987; Lareau & Horvat, 1999; Lareau & Shumar, 1996; Marjoribanks, 2002a; Nord et al., 1997; Parcel & Dufur, 2001;West & Noden 1998).

Hypothesis 3: Measures of family structure (sibship size and birth order) are related to parents' aspirations and to their involvement in their children's education.

The quantitative results indicated that birth order had medium associations with fathers' and mothers' aspirations for their sons, while sibship size had a medium significant association with fathers' involvement for their sons in school. Moreover, birth order and sibship had small significant associations with mothers' involvement for their daughters in school. In general, the quantitative findings provided little support for the hypothesis linking family structure and the other family measures.

The qualitative data showed that parents from both social status groups had a view that firstborn children developed certain characteristics often not observed in laterborn children. In general, firstborn children, in relation to laterborn children, were perceived to have more positive qualities such as being independent, enthusiastic, sincere, and responsible. Such sibling differences in children's qualities were clearly an issue of interest to the parents, as almost all chose to make a comment about the differences. In addition, statements from the majority of the teachers reinforced the view that they felt firstborn children differed from their siblings. The comments of parents, children, principals, and teachers provided useful insights into the way Taiwanese families regard sibling structure and gender differences among children. Some parents did reveal that they favored one child rather than another. The choices appeared to be related to personality characteristics. There was little evidence that parents had higher aspirations for firstborn children or for sons. In addition, there were no real suggestions that greater educational support or help in learning was provided to firstborn as against laterborn children, or to boys as against girls. Generally, the interview data suggested that sibling structure had a small impact on how parents, teachers, and principals perceived children. The findings suggested the proposition that firstborn children were perceived to be more independent, while laterborn children were perceived to be more dependent.

That is, the findings provided little support for Hypothesis 3, that family structure is related to parents' aspirations and to their involvement in their children's education.

Hypothesis 4: Children whose parents have high aspirations and who are highly involved at home and in school, perceive their school environment more favourably.

The quantitative results showed that fathers' and mothers' aspirations, and mothers' involvement at home had medium significant associations with their sons' perceptions of school learning environments. In addition, mothers' aspirations and parents' involvement at home had medium significant relationships with girls' school learning environments. Children's perceptions of their parents' involvement in school were not, however, related to their perceptions of school learning environments.

The qualitative data showed that parents and students from middle social status backgrounds, perceived a variety of advantages in their school learning environments, including abundant resources, fine facilities, good policies, and supportive teachers. In addition, principals and teachers in the inner city schools indicated that there were good relaitonships between teachers and parents. In contrast, lower social status parents and students tended not to be as detailed in their comments about school environments, as were those from middle social status families. Generally, they focused their comments on the quality of teachers. The restricted nature of the responses was one of the most stricking features of the data gathered from both students and teachers in the lower social status group. Principals and teachers in the two surrounding suburb schools, for example, tended to restricit their remarks to the fact that there were good relations between teachers and they had young teachers and good students. In general, the qualitative findings suggested that while middle social status children may have had a very positive perception of their schools, lower status children also perceived their teachers favourably.

That is, the quantitative and interview data provided only limited support for Hypothesis 4, that children whose parents have high aspirations and who are highly involved at home and in school, perceive their school environment more favourably.

Hypothesis 5: Children in middle social status families have higher academic achievement, stronger aspirations, and more positive affective outcomes than do children from lower social status families.

Hypothesis 6: Measures of family structure (sibship size and birth order) are related to children's academic achievement, aspirations, and affective outcomes.

Hypothesis 7: Children who perceive that their parents have high aspirations and are involved in their education and who perceive their school favourably, have higher academic achievement, stronger aspirations, and more positive affective outcomes, than do children who have less positive perceptions.

When boys were examined, the quantitative results showed that boys in middle social status families had higher Chinese language and mathematics achievement, more positive self-concept, and higher aspirations, than did other boys. Social status was not related to peer-acceptance and psychological adaptation. Sibship size and birth order had small to medium significant associations with Chinese language achievement, mathematics achievement, self-concept, and educational and occupational aspirations, but was not related to peer-acceptance and psychological adaptation. That is, firstborn and boys from small families had higher academic achievement, more positive self-concept and higher aspirations than did other boys. Fathers' and mothers' involvement at home had medium associations with self-concept, and small associations with educational aspirations, while mothers' involvement at home was related to occupational aspirations. Fathers' and mothers' involvement at home and in school had small to medium significant associations with Chinese language, mathematics achievement, self-concept, and educational and

occupational aspirations. In addition, fathers' and mothers' aspirations had significant medium to large associations with boys' Chinese language and mathematics achievement, self-concept, peer-acceptance, psychological adaptation (not for fathers' aspirations), and educational and occupational aspirations. The boys' perceptions of their school learning environments had medium to large associations with self-concept, peer-acceptance, psychological adaptation, and educational and occupational aspirations. That is, boys' perceptions of their school learning environments were related to their affective outcomes but not to the academic achievement scores. Except for the peer-acceptance and psychological adaptation measures, the analyses provided initial support for Hypotheses 5, 6, and 7, in relation to boys.

When girls were examined the quantitative results showed that girls in middle social status families had higher academic achievement, more positive peer-acceptance, and higher aspirations than did girls from lower social status families. Birth order had a medium significant association with Chinese language and a small relation with mathematics achievement. Firstborn girls had higher academic achievement than did laterborn girls. Sibship size was not associated with any of the outcome variables. Parents' involvement at home had small to medium significant relations with academic achievement and affective outcomes. In addition, mothers' involvement at home had small significant relationships with girls' educational aspirations while fathers' involvement at home was associated with girls' occupational aspirations. Girls who perceived that their parents had higher involvement in school, had higher Chinese language and mathematics achievement scores (except for the association between fathers' involvement in school and mathematics performance), and more positive affective outcomes. Mothers' involvement in school had a small significant

relation with girls' occupational aspirations. Furthermore, perceived parents' aspirations had medium to large significant associations with each of the outcome measures, except for the relation with girls' psychological adaptation. Girls' perceptions of their school learning environments were related to their affective outcomes and occupational aspirations but not to the academic achievement and educational aspiration scores. Except for the relations involving sibship size, the findings indicated that the environment variables, had a set of medium significant associations with the outcome variables. That is, the analyses provided general support for Hypotheses 5, 6, and 7, in relation to girls.

The interviews indicated that children from middle social status families and lower social status families both expressed that they would like to get higher degrees and have good occupations in the future. Middle social status children appeared, however, to be more certain about their aspirations and tended to have occupational aspirations that they felt would be supported by parents. In addition, while the lower social status students often had high educational aspirations, they tended to be related to lower levels of the professional occupational hierarchy. That is, the qualitative data provided support for the quantitative analysis that there were social status differences in the nature of the aspirations of the children. The qualitative findings, did not directly assess the relationship between social status and scores on academic and affective outcomes. Instead, when the students were confronted with general questions about school outcomes, they provided quite sophisticated responses comparing the relative value of the outcomes. Children from the two social status groups generally suggested that academic and affective outcomes were both important. There were a number of children, parents, and school personnel who suggested that while both were important, affective outcomes were more important

than academic achievement. That is, while the quantitative analysis might have indicated social status variations in the scores on academic and affective outcomes, the qualitative analysis suggested that there were few overall family status differences in how children perceived the importance of different outcomes.

Hypothesis 8: The intervening family and school variables in the theoretical model mediate the relationships between family social status, family structure, and children's academic achievement, aspirations, and affective outcomes.

To test the overall theoretical model of the study, I used multistage regression analysis. Because this hypothesis examined the full theoretical model, I only used quantitative analysis to examine it. The associations between family social status and children's school related outcomes were either mediated, or partially mediated, when relationships involving the intervening variables were taken into account. The results for Chinese language and mathematics achievement indicated that the relationships were reduced, but remained significant, after the addition of the family and school measures, indicating that partial mediation was demonstrated. In contrast, the relationships among family social status and children's educational and occupational aspirations, self-concept, and peer-acceptance, became non-significant after controlling for the associations between the intervening variables and outcomes, indicating full mediation. Family social status was not related to psychological adaptation. That is, there was general support for the theoretical model which suggests that the relationships between family social status and children's school outcomes are mediated, or partially mediated, by measures of children's perception of family and school learning environments.

In general, the analysis suggested the general proposition that: (a) children's academic achievement is related to their family social status and perceptions of immediate family learning environments, (b) children's aspirations are related to their parents' aspirations, and (c) children's affective school-related outcomes are associated with their perceptions of classroom learning environments and parents involvement at home. These propositions indicate the differential nature of the relationships among family and school environments and measures of children's school outcomes.

These findings are consistent with previous investigations (e.g., Marjoribanks, 1997, 2002a, 2002b; Marjoribanks & Mboya, 1998, 2001). Marjoribanks (2002a) indicates, for example, that "The relationships between family background and students' school outcomes are mediated, in part, by relations involving family and school capital, individual characteristics and school outcomes" (p. 21).

(b) Implications of the study for research

The mediation model that was developed, provides an initial framework to examine family background differences in students' school-related outcomes. In general, the predictors were associated with medium to large amounts of variance in the outcome variables. Also, the intervening variables mediated, or partially mediated, the relations between family social status and the cognitive, aspirational, and affective outcomes. The proposed model, however, has a number of limitations. In a more complete model, peer group, neighborhood effects, and the organization of community resources need to be included. Further, school environment should be refined to involve measures such as the quality of instruction, teachers' knowledge of content and pedagogy, and teachers as caring professions. Students' individual

characteristics need to be expanded to include qualities such as students' knowledge and learning strategies, engagement with instruction, and their sense of personal control.

The quantitative analysis of the study is limited by its cross-sectional and correlational design. In addition, the measures used were self-report scales. It would have been preferable to have had data from parents to compare with the information provided by the children. A strength of the study, however, is that the restricted quantitative analysis is complemented by a qualitative investigation. The interviews of students, parents, teachers, and principals provided information that could be used to enhance the statistical findings. In relation to aspirations, for example, middle and lower social status parents tended to have positive expectations for their children. Middle social status parents, however, tended to indicate in the interviews that they expected quite high status occupations for their children, whereas lower status parents were more contented with lower professional occupations. That is, by integrating quantitative and qualitative approaches, the study has taken advantage of both research orientations, and provided a more enriched understanding of the relations between family social status, proximal learning environments, and outcomes.

In addition, the study has gone beyond much other family and school environment research, and included measures of cognitive, aspirational, and affective outcomes. Because of the different relationships involving aspirations, they were separated in the analyses from the other noncognitive outcomes. The quantitative and qualitative analyses indicate that there are varying sets of relations between learning environments and the different outcome measures. The environmental variables

combined to have stronger associations with children's achievement and aspirations, then with their peer acceptance and psychological adaptation. That is, the investigation indicates the differential nature of the relationships among family and school variables and measures of individuals' school outcomes. The research indicates the challenges that confront schools when they attempt to construct learning environments to influence, in particular, the affective outcomes of children.

The study suggests that future research related to families and schools might adopt quantitative and qualitative approaches, and examine multiple outcomes. In addition, such research should involve assessments of peer influences and include more refined measures of teacher-student interactions. Such studies should also obtain more information directly from parents. When such refinements are incorporated in future research, we will have a more enriched understanding of the complexities of family background differences in children's school-related outcomes.

(c) Implications for parents and schools

Educational reform encouraging greater parents' participation in their children's learning is a major challenge facing schools in Taiwan. This study indicates that there is a significant relationship between parental involvement and children's school-related outcomes. The findings emphasise the need for Taiwanese schools to continue to develop parent-teacher partnerships for the benefit of children's learning.

The analysis indicated, for example, that between middle social status parents and schools there was a partnership developed for the educational benefit of the children. In contrast, for lower social status parents there was more of separation, with parents expecting teachers, to teach their children. Middle social status parents tended to

have higher aspirations and were more involved in their children's education, at home and in school, than were lower social status parents. Also, mothers (especially those from middle social status families) were more involved in their children's education than were fathers. Typically, parents of middle social status had higher aspirations and were more involved in their children's education, than were parents of lower social status.

The literature that has been reviewed in this study, and the analyses that have been conducted suggest the need for parents to be meaningfully involved in their children's education. As Epstein and Sanders (2000) suggest:

> Shared responsibilities and overlapping influence mean that parents do not bear the entire burden of figuring out how to become and remain involved in their children's education across the years of schooling. Rather, schools share this burden and must create programs and conditions that inform, consult, assist, and involve all families in their children's education and development every year. Also, community groups, agencies, and individuals are not left to operate in geographic or in social isolation. Rather, educators, parents, and members of communities combine efforts to create a coherent program to help students succeed. (p. 287)

An example of forming such partnerships is provided in an analysis of Spanish families, for example, where Martínez González and Corral Blanco (1996) indicate:

> It can be said that, in general, both parents and children give great value to formal education, possibly as a consequence of social pressure (to be able to pass grades, to have a diploma and to take a qualified job). The importance given to education led parents to be involved in their child's school learning process, and also led children to expect this involvement from their parents. For some forms of involvement, parents and children are in such strong agreement that we could talk about the existence of *family behaviour*

> *patterns* (that apply to both, parents and children) orientated to reach academic and professional goals ... The relationship between these issues and formal education led to consideration of this last one as *an academic family value*. The great interest and importance given by parents and children to education influences their interaction to the point that, in many cases, and in different ways and grades, formal education determines the atmosphere of the family interaction. From this conclusion, the need to establish effective ways to help parents to be involved in their child's school learning process emerge. These ways could be those of promoting real and friendly *cooperation between families and schools*, and that of *parents' education for effective parenting.* (p. 81)

In addition, Martínez, Marques, and Souta (1994) suggest that two kinds of strategies should be developed by schools in order to increase parent-teacher cooperation.

> The first has to do with informative and consultative actions; through them parents and children could acquire relevant information about family issues that influence parent-teacher relationships, parent-children relationships, learning processes and school achievement. The second ones have a formative nature; they are more structured and long term, and should be contextualised in the school. They are related to implementing programmes in schools to increase parents' involvement. Through formal and informal activities performed at schools, these programmes would allow parents to understand better the educative reality of the schools and to feel they belong to them. (p. 54)

In Taiwan, we must move forward to develop the concept of shared responsibilities between families and schools. From such shared responsibilities, parents from all social backgrounds may begin to understand better the educative reality of their children's schools. The present study suggests, that if parent-teacher partnerships become really meaningful, then the academic, aspirational, and affective outcomes of children from all family backgrounds are likely to be enhanced. It should be a goal of

Taiwanese schools to ensure that such enrichment occurs for all students. This research has been a contribution to understanding the challenges that confront parents, teachers, and principals as they attempt to improve the educational experiences of all Taiwanese children.

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APPENDICES

APPENDIX A

FAMILY STRUCTURE AND FAMILY SOCIAL STATUS SCALE

1. Your name : _____

2. Your school : _____

3. Gender : ☐ male ☐ female

4. At home you live with: ☐ Both parents ☐ Just my mother
   ☐ Just my father ☐ Just relatives

5. How many brothers and sisters do you have? _____

6. How many brothers and sisters are older than you? _____

7. Indicate the highest education level of your **father**?

☐ Finished primary school
☐ Finished junior high (secondary) school
☐ Finished high school
☐ Graduated from junior college
☐ Graduated from university
☐ Graduated from graduate school

8. Indicate the highest education level of your **mother**?

☐ Finished primary school
☐ Finished junior high (secondary) school
☐ Finished high school
☐ Graduated from junior college
☐ Graduated from university
☐ Graduated from graduate school

9. Write down the name of your **father's** job (e.g., teacher, doctor, waiter):

_____

10. Write down the name of your **mother's** job (e.g., teacher, doctor, waitress):

_____

APPENDIX B

PARENTS' INVOLVEMENT IN THE FAMILY
AND PARENTS' ASPIRATIONS SCALE

- Please read each statement and decide on your answer. There are four possible answers to each statement: "I strongly agree", "I agree", "I disagree", "I strongly disagree".
- Choose your response to each statement and put a (∨) in the box that comes closest to indicating how you feel about the statement.
- One example is given below:

Example:	I strongly agree	I agree	I disagree	I strongly disagree
I love my parents	√			

		I strongly agree	I agree	I disagree	I strongly disagree
1.	My **mother** is very interested in my schoolwork	☐	☐	☐	☐
2.	My **mother** often helps me with my homework	☐	☐	☐	☐
3.	My **mother** often speaks to me about what I have done at school	☐	☐	☐	☐
4.	My **mother** often praises me for things I do	☐	☐	☐	☐
5.	My **mother** gives me great encouragement to stay at school	☐	☐	☐	☐

6.	My **mother** often tells me of the importance of getting a good education	☐	☐	☐	☐
7.	My **mother** often shares out of home activities with me	☐	☐	☐	☐

8. How much education does your **mother** want you to receive?
   - ☐ Leave school as soon as possible
   - ☐ Finish junior high school
   - ☐ Finish high school
   - ☐ Graduated from junior college
   - ☐ Graduated from university
   - ☐ Graduated from graduate school

9. What job or occupation would your **mother really like** you to have if at all possible, when you at about 25 years old?
   Print the name of the expected job: _____.

10. What job or occupation does your **mother really expect** you to have when you are about 25 years old?
    Print the name of the expected job: _____.

		I strongly agree	I agree	I disagree	I strongly disagree
11.	My **father** is very interested in my schoolwork	☐	☐	☐	☐
12.	My **father** often helps me with my homework	☐	☐	☐	☐

13. My **father** often speaks to me about what I have done at school	☐	☐	☐	☐
14. My **father** often praises me for things I do	☐	☐	☐	☐
15. My **father** gives me great encouragement to stay at school	☐	☐	☐	☐
16. My **father** often tells me of the importance of getting a good education	☐	☐	☐	☐
17. My **father** often shares out of home activities with me	☐	☐	☐	☐

18. How much education does your **father** want you to receive?
    - ☐ Leave school as soon as possible
    - ☐ Finish junior high school
    - ☐ Finish high school
    - ☐ Graduated from junior college
    - ☐ Graduated from university
    - ☐ Graduated from graduate school

19. What job or occupation would your **father really like** you to have if at all possible, when you at about 25 years old?
    Print the name of the expected job: _____

20. What job or occupation does your **father really expect** you to have when you are about 25 years old?
    Print the name of the expected job: _____.

APPENDIX C

PARENTS' INVOLVEMENT IN THE SCHOOL SCALE

1. How often have the following people attended open house at your school?

	never	occasionally	usually	always
a. Father	☐	☐	☐	☐
b. Mother	☐	☐	☐	☐
c. Other relative	☐	☐	☐	☐

2. How often have the following people acted as a volunteer in your school or class (like telling a story, decorating or cleaning a classroom, correcting your homework).

	never	occasionally	usually	always
a. Father	☐	☐	☐	☐
b. Mother	☐	☐	☐	☐
c. Other relative	☐	☐	☐	☐

3. How often have the following people attended scheduled parent-teacher conferences?

	never	occasionally	usually	always
a. Father	☐	☐	☐	☐
b. Mother	☐	☐	☐	☐
c. Other relative	☐	☐	☐	☐

4. How often have the following people attended an activity, such as an art exhibition or sporting event, at your school?

	never	occasionally	usually	always
a. Father	☐	☐	☐	☐
b. Mother	☐	☐	☐	☐
c. Other relative	☐	☐	☐	☐

5. How often does your **mother** attend school functions?

☐ Never ☐ occasionally ☐ usually ☐ always

6. How often does your **father** attend school functions?

☐ Never ☐ occasionally ☐ usually ☐ always

7. How often do your other relatives attend school functions?

☐ Never ☐ occasionally ☐ usually ☐ always

8. When your **mother** attends your school activities, how does it:

(a) help you with your relationships with teachers

☐a lot ☐a little ☐not at all

(b) help you with your schoolwork

☐a lot ☐a little ☐not at all

(c) help you with your relationships with classmates

☐a lot ☐a little ☐not at all

(d) help you to adjust to school life

☐a lot ☐a little ☐not at all

9. When your **father** attends your school activities, how does it:

(a) help you with your relationships with teachers

☐a lot ☐a little ☐not at all

(b) help you with your schoolwork

☐a lot ☐a little ☐not at all

(c) help you with your relationships with classmates

☐a lot ☐a little ☐not at all

(d) help you to adjust to school life

☐a lot ☐a little ☐not at all

APPENDIX D

PERCEPTIONS OF SCHOOL LEARNING ENVIRONMENTS SCALE

In the following questionnaire there are statements about the support your teachers have given to you in relation to your schooling.

- Please read each statement and decide on your answer. There are four possible answers to each statement: "I strongly agree", "I agree", "I disagree", "I strongly disagree".
- Choose your response to each statement and put a (√) in the box that comes closest to indicating how you feel about the statement.
- One example is given below:

Example:

	I strongly agree	I agree	I disagree	I strongly disagree
I love my school	☐	√	☐	☐

	I strongly agree	I agree	I disagree	I strongly disagree
1. Most of my teachers make this school a very exciting place in which to learn	☐	☐	☐	☐
2. Most of the teachers in this school are very interested in the personal problems of students	☐	☐	☐	☐
3. Generally, those in charge in this school are not very patient with the students	☐	☐	☐	☐

4. Often, the teachers in my classes give the impression that they are not very interested in what they are teaching	☐	☐	☐	☐
5. Most of our teachers encourage us to use a lot of imagination in our schoolwork	☐	☐	☐	☐
6. This is a very caring school - teachers and students care greatly about each other	☐	☐	☐	☐
7. Quite often teachers embarrass and upset students in my classes for not knowing the correct answers to questions	☐	☐	☐	☐
8. Most of my teachers put a lot of energy and enthusiasm into their teaching	☐	☐	☐	☐
9. In this school our teachers encourage us to think about exciting and often, unusual careers	☐	☐	☐	☐
10. This school is a very impersonal place - the teachers do not seem to want to get to know the students	☐	☐	☐	☐
11. There is a very enjoyable feeling in this school - teachers do not make too many unpleasant rules that have to be obeyed	☐	☐	☐	☐

12. In most of my lessons I feel that I learn quite a lot	☐	☐	☐	☐
13. This school is full of fairly dull and uninteresting students and teachers - generally, it is not a very exciting place to be	☐	☐	☐	☐
14. Outside of classes most of the teachers are very friendly and find a lot of time to talk to students	☐	☐	☐	☐
15. Sometimes students in this school are punished by teachers without the students really knowing the reasons for being punished	☐	☐	☐	☐
16. Most of my classes are very well planned by teachers	☐	☐	☐	☐
17. Most of my teachers keep encouraging us to be very imaginative in all that we do	☐	☐	☐	☐
18. In this school most teachers spend much of their time in helping students with their schoolwork and personal problems	☐	☐	☐	☐

19. There are many rules and regulations in this school - you need permission to do almost anything	☐	☐	☐	☐
20. Most of my teachers seem to be very interested in what they are teaching	☐	☐	☐	☐
21. Teachers are always trying out new and often exciting ways of doing things in this school	☐	☐	☐	☐
22. In this school, teachers are genuinely concerned with students' feelings	☐	☐	☐	☐
23. Teachers, in this school, often make students take the blame for things whether they did them or not	☐	☐	☐	☐
24. Most of my teachers do not seem to prepare their lessons very well	☐	☐	☐	☐
25. In this school, teachers give very little encouragement to anyone who wants to do things differently	☐	☐	☐	☐

26. A great thing about this school is the personal interest taken in the students by the teachers	☐	☐	☐	☐
27. Our teachers often discuss with us why the school has certain rules and why they are important	☐	☐	☐	☐
28. If often seems that the teachers in my school are not very interested in whether we learn or not	☐	☐	☐	☐
29. Most of my teachers give students a lot of encouragement to be on their own and they allow them to do things by themselves	☐	☐	☐	☐
30. Students in this school try in many ways to be friendly, especially to newcomers	☐	☐	☐	☐
31. In this school, most teachers seem to think that students are always up to mischief and they punish even small misbehaviors	☐	☐	☐	☐

32. Teachers in this school really push us to the limits of their abilities	☐	☐	☐	☐
33. If we want to do things in our own way in this school, most of the teachers help us and give us great encouragement	☐	☐	☐	☐
34. Most of my teachers do not seem to care much about how the students feel about things in the school	☐	☐	☐	☐
35. If students disagree with school rules then it is possible to discuss the disagreements with teachers and possibly have the rules changed	☐	☐	☐	☐
36. Most of my teachers give homework that is really useful in helping me to understand my schoolwork	☐	☐	☐	☐
37. This school is full of teachers with very imaginative and different	☐	☐	☐	☐

ways of thinking about things - it is a very exciting place to be				
38. As well as being concerned about regular schoolwork, most of the teachers in this school are very concerned about students' personal problems	☐	☐	☐	☐
39. Teachers expect us to obey too many rules and regulations in this school	☐	☐	☐	☐
40. Most of my teachers know their subject material very well and they are able to present it in an interesting manner	☐	☐	☐	☐

APPENDIX E

STUDENTS' AFFECTIVE OUTCOMES SCALE

1. Your name : _____

2. Your school : _____

In the following questionnaire there are statements I would like you to react to:

- Please read each statement and decide on your answer. There are four possible answers to each statement: "I strongly agree", "I agree", "I disagree", "I strongly disagree".
- Choose your response to each statement and put a (√) in the box that comes closest to indicating how you feel about the statement.
- One example is given below:

Example:	I strongly agree	I agree	I disagree	I strongly disagree
I am good at sports	☐	☐	√	☐

A. SELF-CONCEPT SCALE

	I strongly agree	I agree	I disagree	I strongly disagree
1. Mathematics is one of my best subjects	☐	☐	☐	☐
2. I always do well in mathematics	☐	☐	☐	☐
3. I get good marks in mathematics	☐	☐	☐	☐
4. I do badly in mathematics tests	☐	☐	☐	☐

5.	I learn things quickly in Chinese classes	☐	☐	☐	☐
6.	Chinese is one of my best subjects	☐	☐	☐	☐
7.	I get good marks in Chinese	☐	☐	☐	☐
8.	I am hopeless in Chinese classes	☐	☐	☐	☐
9.	I like my family very much	☐	☐	☐	☐
10.	I like my school very much	☐	☐	☐	☐
11.	It is easy for me to make friends	☐	☐	☐	☐
12.	I feel my family does not care for me	☐	☐	☐	☐
13.	My family loves me	☐	☐	☐	☐
14.	I am well liked by others of my age	☐	☐	☐	☐
15.	I like the way I look	☐	☐	☐	☐

B. PEER-ACCEPTANCE SCALE

16. I often cry	☐	☐	☐	☐
17. I would like to change the way I look	☐	☐	☐	☐
18. I get hurt easily when someone shouts at me	☐	☐	☐	☐
19. I am not happy with my appearance	☐	☐	☐	☐
20. I am good at nearly everything I do	☐	☐	☐	☐
21. I often play alone	☐	☐	☐	☐
22. I often feel my classmates scorn and bully me	☐	☐	☐	☐
23. I do not know how to play with my classmates	☐	☐	☐	☐
24. I do not like my close friends to play with the other classmates	☐	☐	☐	☐
25. I often cannot understand what my classmates are talking about	☐	☐	☐	☐
26. I do not have any good friends	☐	☐	☐	☐

27. I do not know how to praise my classmates, although I feel they are good	☐	☐	☐	☐
28. My classmates do not invite me to attend their activities	☐	☐	☐	☐
29. I am infuriated when my classmates use nasty words or are unpleasant to me	☐	☐	☐	☐
30. Although I often play with my classmates, I still feel lonely	☐	☐	☐	☐

C. PSYCHOLOGICAL ADAPTATION SCALE

31. I am often sick	☐	☐	☐	☐
32. I feel I am healthy	☐	☐	☐	☐
33. I often feel I am shorter than my classmates	☐	☐	☐	☐
34. I feel I look well	☐	☐	☐	☐
35. I feel my figure is excellent	☐	☐	☐	☐
36. I feel I lack energy	☐	☐	☐	☐
37. I feel I am too lazy to do anything	☐	☐	☐	☐
38. I often feel I have a headache	☐	☐	☐	☐

39.	I often feel dizzy	☐	☐	☐	☐
40.	I often feel I have a stomach ache	☐	☐	☐	☐

D. CHILDREN'S ASPIRATIONS SCALE

41. What level of education do you **expect** to achieve?

- ☐ Leave school as soon as possible
- ☐ Finish junior high school
- ☐ Finish high school
- ☐ Graduated from junior college
- ☐ Graduated from university
- ☐ Graduated from graduate school

42. If at all possible what job or occupation would you **really like** to have when you are about 25 years old?
Print the name of the desired job: _____.

43. Being realistic, what job or occupation do you think you will **really have** when you are about 25 years old?
Print the name of the expected job: _____

Thank you very much indeed for completing these questions. Your help is appreciated greatly.

APPENDIX F

INTERVIEW QUESTIONS

For parents

1. Could you please tell me how you are involved in your child's school?
2. How important do you find this involvement?
3. What activities do you most like being involved in at school?
4. What activities do you find most difficult being involved in at your child's school?
5. Why do you take the trouble to be involved in your child's education? Or why are you not more involved in your child's education?
6. From your experience, what differences are there in learning at school between boys and girls?
7. What differences in learning at school do you notice between first and laterborn children in the family? Why?
8. Do you think some parents are more likely to decide to be involved in school activities if their child is a boy? Why?
9. Do you think that some parents are more likely to decide to be involved in school activities if they relate to their first child? Why?
10. How do you support your child's school learning at home?
11. How useful do you think it is when you support your child's learning at home?
12. What learning activities do you most like doing at home?
13. What learning activities do you find most difficult to be involved in with your child at home?
14. What educational level would you like your child to reach?
15. How important do you think education is for your child's future?
16. What occupation would you like your child to have at 25 years of age?
17. How important do you think having a certain occupation is for your child's future?
18. What do you think is most important for your child: academic achievement in say Chinese language, mathematics, and natural science achievement, or having positive affective orientations in characteristics such as self-concept, peer-acceptance, and psychological adaptation?
19. Why do you think that? (in relation to item 18).

20. What are the most positive aspects of the learning environment in your child's school?
21. How important do you think your child's school learning environment is for your child?

For children

1. Could you please tell me how your parents are involved in your school?
2. How important do you find this?
3. What activities do you like your parents to be involved in at your school?
4. What activities do you not like your parents to be involved in at your school?
5. Why do you think your parents take the trouble to be involved in your education? Or why are your parents not more involved in your education?
6. From your experience, what differences are there in learning at school between boys and girls?
7. What differences in learning at school do you notice between first and laterborn children in families?
8. Do you think that some parents are more likely to decide to be involved in school activities if their child is a boy? Why?
9. Do you think that some parents are more likely to decide to be involved in school activities if they relate to their first child? Why?
10. How do your parents support your school learning at home?
11. How useful do you think it is when your parents support your learning at home?
12. What learning activities do you most like your parents to help you with at home?
13. What learning activities do you not like your parents to help you with at home?
14. What educational level would you like to reach?
15. How important do you think this is for your future? (in relation to item 14).
16. What occupation would you like to have at 25 years of age?
17. How important do you think this is for your future? (in relation to item 16).
18. What do you think is most important for you: academic achievement in say Chinese language, mathematics, and natural science achievement, or having positive affective orientations in characteristics such as self-concept, peer-acceptance, and

psychological adaptation?

19. Why do you think that? (in relation to item 18).
20. What are the most positive aspects of the learning environment of your school?
21. How important do you think your school learning environment is for you?

For teachers

1. Could you please tell me how parents are involved in your school?
2. How important do you find this?
3. What activities do you like parents to be involved in at your school or in your classroom?
4. What activities do you find most difficult for parents to be involved in at your school or in your classroom?
5. Why do you think some parents are not more involved in their child's education? Or why do you think parents like to be involved in their child's education?
6. Why do you think some teachers do not like parents to be involved in their children's classroom?
7. How supportive is the principal of parents being involved in schooling?
8. From your experience, what differences are there in learning at school between boys and girls?
9. What differences in learning at school do you notice between firstborn and laterborn children in families?
10. Do you think that some parents are more likely to decide to be involved in school activities if their child is a boy?
11. Do you think that some parents are more likely to decide to be involved in school activities if they relate to their first child?
12. How do you think parents support their child's school learning at home?
13. How useful do you think it is when parents support their child's learning at home?
14. What learning activities do you think parents are best at doing at home?
15. What learning activities do you think are most difficult for parents with their child at home?
16. What do you think is most important for children: academic achievement in say Chinese language, mathematics, and natural science achievement, or having positive

affective orientations in characteristics such as self-concept, peer-acceptance, and psychological adaptation?

17. Why do you think that? (in relation to item 16).
18. What do you think are the most positive aspects of the learning environment of your school?
19. How important do you think these are for your students?

For principals

1. Could you please tell me how parents are involved in your school?
2. How important do you find this?
3. What activities do you like parents to be involved in at school?
4. What activities do you find most difficult for parents to be involved in at school?
5. Why do you think parents are not more involved in their child's education? Or why do you think parents like to be involved in their child's education?
6. How supportive are your teachers in relation to parents being involved in schooling?
7. From your experience, what differences are there in learning at school between boys and girls?
8. What differences in learning at school do you notice between firstborn and laterborn children in families?
9. Do you think some parents are more likely to decide to be involved in school activities if their child is a boy?
10. Do you think some parents are more likely to decide to be involved in school activities if they relate to their first child?
11. How do you think parents best support their child's school learning at home?
12. How useful do you think it is when parents support their child's learning at home?
13. What learning activities do you think parents most like doing at home?
14. What learning activities do you find are most difficult for parents to be involved in with their child at home?
15. What do you think is most important for children: academic achievement in say Chinese language, mathematics, and natural science achievement, or having positive affective orientations in characteristics such as self-concept, peer-acceptance, and psychological adaptation?

16. Why do you think that? (in relation to item 15).
17. What do you think are the most positive aspects of the learning environment of your school?
18. How important do you think these are for your students?

APPENDIX G

計劃 一

甲

1. 姓名 ： _____

2. 學校 ： _____

3. 性別 ： ☐ 男 ☐ 女

4. 你和誰住在一起？

☐ 爸爸和媽媽 ☐ 只有媽媽 ☐ 只有爸爸 ☐ 和親戚住

5. 你有幾個兄弟姊妹? _____

6. 你排行第幾? _____

7. 你知道**爸爸**最高的學歷是什麼嗎?

☐ 小學畢業
☐ 國中畢業
☐ 高中（職）畢業
☐ 五專畢業
☐ 大學畢業
☐ 研究所畢業

8. 你知道**媽媽**最高的學歷是什麼嗎?

☐ 小學畢業
☐ 國中畢業
☐ 高中（職）畢業
☐ 五專畢業
☐ 大學畢業
☐ 研究所畢業

9. 請你寫出**爸爸**職業（工作）的名稱（例如：老師，餐廳服務生，水泥工，水電工人，公司經理): _____

10. 請你寫出**媽媽**職業（工作）的名稱（例如：老師，餐廳服務生，水泥工，水電工人，公司經理): _____

APPENDIX H

計劃　二

- 請你仔細讀讀看以下的題目，再選出最適合你的答案。這裡有四個答案「非常贊成」「贊成」「不贊成」「非常不贊成」
- 請你在四個答案中選出一個答案，然後畫 (√)在 □ 中
- 例如:

	非常贊成	贊成	不贊成	非常不贊成
我愛**媽媽**	√	□	□	□

	非常贊成	贊成	不贊成	非常不贊成
1. **媽媽**對我在學校的一切活動非常有興趣.	□	□	□	□
2. **媽媽**常常會指導我做功課	□	□	□	□
3. **媽媽**會常常問我在學校做了什麼事或學到什麼	□	□	□	□
4. **媽媽**常常說:「你很棒！」	□	□	□	□
5. **媽媽**給我很大的鼓勵，讓我喜歡去學校上課	□	□	□	□
6. **媽媽**常常告訴我用功讀書，受教育是很重要的一件事	□	□	□	□

7. **媽媽**常常帶去參觀博物館、圖 ☐ ☐ ☐ ☐

書館、兒童遊樂區、公園或

參加社區舉辦的活動

8. **媽媽**希望你可以接受多少教育?

☐ 最好不要唸書

☐ 只要國中畢業

☐ 只要高中（職）畢業

☐ 五專畢業

☐ 大學畢業

☐ 研究所畢業

9. 當你長大時，如果有可能的話，**媽媽**喜歡你可以從事什麼樣的行業或工作?

請你寫出行業或工作的名稱: _____.

10. 但是事實上，**媽媽**預期你會從事什麼樣的行業或工作?

請你寫出行業或工作的名稱: _____.

丙

- 請你仔細讀讀看以下的題目，再選出最適合你的答案。這裡有四個答案「非常贊成」「贊成」「不贊成」「非常不贊成」
- 請你在四個答案中選出你的一個答案，然後畫（√）在 ☐ 中
- 例如:

	非常贊成	贊成	不贊成	非常不贊成
我愛**爸爸**	√	☐	☐	☐

	非常贊成	贊成	不贊成	非常不贊成
11. **爸爸**對我在學校的一切活動非常有興趣.	☐	☐	☐	☐
12. **爸爸**常常會指導我做功課	☐	☐	☐	☐
13. **爸爸**會常常問我在學校做了什麼事或學到什麼	☐	☐	☐	☐
14. **爸爸**常常說：「你很棒！」	☐	☐	☐	☐
15. **爸爸**給我很大的鼓勵，讓我喜歡去學校上課	☐	☐	☐	☐
16. **爸爸**常常告訴我用功讀書，受教育是很重要的一件事	☐	☐	☐	☐
17. **爸爸**常常帶去參觀博物館、圖書館、兒童遊樂區、公園或參加社區舉辦的活動	☐	☐	☐	☐

18. **爸爸**希望你可以接受多少教育?

☐ 最好不要唸書

☐ 只要國中畢業

☐ 只要高中（職）畢業

☐ 五專畢業

☐ 大學畢業

☐ 研究所畢業

19. 當你長大時，如果有可能的話，**爸爸**喜歡你可以從事什麼樣的行業或工作?

請你寫出行業或工作的名稱: _____.

20. 但是事實上，**爸爸**預期你會從事什麼樣的行業或工作?

請你寫出行業或工作的名稱: _____.

APPENDIX I

計劃　三

1. 以下這些人曾經參加過學校的「家長參觀日」嗎?

	從來沒有	偶而	常常	每次都來
(a) 爸爸	☐	☐	☐	☐
(b) 媽媽	☐	☐	☐	☐
(c) 其他親戚	☐	☐	☐	☐

2. 以下這些人曾經到過學校或班級當過義工嗎？（例如：在班上說故事、佈置教室、或在路口幫忙導護老師協助學生上下學）

	從來沒有	偶而	常常	每次都來
(a) 爸爸	☐	☐	☐	☐
(b) 媽媽	☐	☐	☐	☐
(c) 其他親戚	☐	☐	☐	☐

3. 以下這些人曾經參加過班級的班親會（或親師座談會）嗎?

	從來沒有	偶而	常常	每次都來
(a) 爸爸	☐	☐	☐	☐
(b) 媽媽	☐	☐	☐	☐
(c) 其他親戚	☐	☐	☐	☐

4. 以下這些人曾經參過學校舉辦的活動嗎？（例如：校慶、運動會、學生作品展）

	從來沒有	偶而	常常	每次都來
(a) 爸爸	☐	☐	☐	☐
(b) 媽媽	☐	☐	☐	☐
(c) 其他親戚	☐	☐	☐	☐

5. 對於學校所有的活動，**媽媽**

☐ 從不參加 ☐ 偶而參加 ☐ 常常參加 ☐ 每次參加

6. 對於學校所有的活動，**爸爸**

☐ 從不參加 ☐ 偶而參加 ☐ 常常參加 ☐ 每次參加

7. 對於學校所有的活動其他親戚（例如：奶奶、外婆、阿姨、叔叔）

☐ 從不參加 ☐ 偶而參加 ☐ 常常參加 ☐ 每次參加

8. 當**媽媽**參加學校所舉辦的所有活動，或到你的班上幫忙時，你覺得如何？

(d) 對於你和老師彼此之間的關係

☐ 幫助很大 ☐ 幫助一些 ☐ 沒有差別

(b) 對於你在學校的活動或功課

☐ 幫助很大 ☐ 幫助一些 ☐ 沒有差別

(d) 對於你和同學彼此之間的關係

☐ 幫助很大 ☐ 幫助一些 ☐ 沒有差別

(d) 對於你在學校的適應

☐ 幫助很大 ☐ 幫助一些 ☐ 沒有差別

9. 當**爸爸**參加學校所舉辦的所有活動，或到班上幫忙時，你覺得如何？

(a) 對於你和老師彼此之間的關係

☐ 幫助很大 ☐ 幫助一些 ☐ 沒有差別

(b) 對於你在學校的活動或功課

☐ 幫助很大 ☐ 幫助一些 ☐ 沒有差別

(c) 對於你和同學彼此之間的關係

☐ 幫助很大 ☐ 幫助一些 ☐ 沒有差別

(d) 對於你在學校的適應

☐ 幫助很大 ☐ 幫助一些 ☐ 沒有差別

APPENDIX J

計劃　四

- 請你仔細讀讀看以下的題目，再選出最適合你的答案。這裡有四個答案「非常贊成」「贊成」「不贊成」「非常不贊成」
- 請你在四個答案中選出你的一個答案，然後畫（√）在□中
- 例如：

	非常贊成	贊成	不贊成	非常不贊成
我愛**老師**	□	√	□	□

	非常贊成	贊成	不贊成	非常不贊成
1. 學校大部分的老師會想盡辦法，讓學校變得很吸引人	□	□	□	□
2. 學校大部分的老師很關心學生問題	□	□	□	□
3. 學校大部分的老師對學生很沒耐心	□	□	□	□
4. 學校大部分的老師對教書很不認真或你覺得他們根本對教書就沒興趣	□	□	□	□

5. 大部分的老師會鼓勵我們，盡量運用自己的想像力，去學習每一件事物 ☐ ☐ ☐ ☐

6. 這是一所感覺非常溫暖的學校師生彼此真心對待對方 ☐ ☐ ☐ ☐

7. 老師上課時，對學生不知道正確答案，經常覺得難過和挫折 ☐ ☐ ☐ ☐

8. 我的老師充滿活力和熱誠 ☐ ☐ ☐ ☐

9. 大部分的老師時常鼓勵我們 ☐ ☐ ☐ ☐

10. 這所學校是一個沒感情的地方老師不會想多認識學生 ☐ ☐ ☐ ☐

11. 這是一個充滿歡樂的學校老師不會定一些不合理的規定，要學生遵守 ☐ ☐ ☐ ☐

12. 我覺得在學校我學到很多知識 ☐ ☐ ☐ ☐

13. 這是一所沒有吸引力的學校 ☐ ☐ ☐ ☐

14. 下課後，大部分老師會花時間和學生說話 ☐ ☐ ☐ ☐

15. 在學校裡，學生常被處罰，但不知道被處罰的理由 ☐ ☐ ☐ ☐

16. 老師上課是非常有計劃的 ☐ ☐ ☐ ☐

17. 老師對我們所做的事情，總是抱持鼓勵的態度 ☐ ☐ ☐ ☐

18. 老師花很多時間，在學校活動、學生課業及學生的問題上 ☐ ☐ ☐ ☐

19. 學校有很多校規，你必須小心地去做每件事，否則就會觸犯校規 ☐ ☐ ☐ ☐

20. 大部分的老師對他們所教的科目非常的有興趣 ☐ ☐ ☐ ☐

21. 這個學校的老師常常想一些新的方式或吸引人的方法來教書或辦活動 ☐ ☐ ☐ ☐

22. 大部分的老師會時時關心學生的感覺和學生到底在想什麼 ☐ ☐ ☐ ☐

23. 大部分的老師，時常責備學生，從來不去了解事情的真相 ☐ ☐ ☐ ☐

24. 大部分的老師，對他們所教的科目，從來不準備 ☐ ☐ ☐ ☐

25. 老師對於學生有不同的想法或不同的做法時，通常給很少的支持和鼓勵 ☐ ☐ ☐ ☐

26. 老師對學生的一切都很關心 ☐ ☐ ☐ ☐

27. 老師常常和我們討論：學校為什麼有這些規定，以及為什麼這些規定是重要的 ☐ ☐ ☐ ☐

28. 老師從不關心我們到底學到什麼 ☐ ☐ ☐ ☐

29. 當學生有自己的想法和自己獨特的做法時，老師通常給予很大的鼓勵 ☐ ☐ ☐ ☐

30. 學校大部分的老師對學生很友善特別是新生或轉學生 ☐ ☐ ☐ ☐

31. 學校老師大部分認為學生 □ □ □ □
是頑皮的所以常常
處罰學生，就算是
一個小小的過錯

32. 大部分的老師會鼓勵學生 □ □ □ □
發揮他們的潛能和能力

33. 鼓老師會以最大的支持和 □ □ □ □
勵我們以自己的想法
和方式去做事

34. 大部分的老師根本不關心 □ □ □ □
學生 心裡到底在想什麼

35. 如果學生對學校的規定有不同 □ □ □ □
想法時，老師會和同學
一起討論有時會有改變
規定的機會

36. 老師給的功課或作業對我很有 □ □ □ □
幫助，幫助我去了解各科目的
實際內容

37. 這個學校大部分的老師充滿想像力，基本上這個學校是一個相當吸引人的地方 ☐ ☐ ☐ ☐

38. 基本上來說，大部分的老師相當關心學生 ☐ ☐ ☐ ☐

39. 老師希望我們遵守的的校規太多 ☐ ☐ ☐ ☐

40. 大部分的老師對自己所教的科目相當了解而且上課的時候很有趣 ☐ ☐ ☐ ☐

APPENDIX K

計劃五

1. 姓名　　：＿＿＿＿＿＿＿＿

2. 學校　　：＿＿＿＿＿＿＿＿

戊

- 請你仔細讀讀看以下的題目，再選出最適合你的答案。這裡有四個答案「非常贊成」「贊成」「不贊成」「非常不贊成」
- 請你在四個答案中選出你的一個答案，然後畫（√）在 ☐ 中
- 例如：

	非常贊成	贊成	不贊成	非常不贊成
我的專長是運動	☐	☐	√	☐

	非常贊成	贊成	不贊成	非常不贊成
3. 數學是我表現最好科目中的一科	☐	☐	☐	☐
4. 我總是可以將數學功課做的很好.	☐	☐	☐	☐
5. 我的數學成績很好	☐	☐	☐	☐
6. 我每次數學考試都考的很差	☐	☐	☐	☐

7. 上國語課時，我總是可以學的很快	☐	☐	☐	☐
8. 國語是我表現最好的一科	☐	☐	☐	☐
9. 我的國語成績很好	☐	☐	☐	☐
10. 我覺得我的國語科是沒有希望了	☐	☐	☐	☐
11. 我非常喜歡我的家和家人	☐	☐	☐	☐
12. 我非常喜歡我的學校	☐	☐	☐	☐
13. 我非常容易就交到朋友	☐	☐	☐	☐
14. 我感覺我的家人不關心我	☐	☐	☐	☐
15. 我的家人都很愛我	☐	☐	☐	☐
16. 我覺得我和同年齡的小孩表現的一樣好	☐	☐	☐	☐
17. 我喜歡我長的樣子	☐	☐	☐	☐
18. 我常常哭	☐	☐	☐	☐
19. 我常常想改變我的長相	☐	☐	☐	☐

20. 當有人大聲罵我、說我時，我很容易就感到受傷害 ☐ ☐ ☐ ☐

21. 我對自己的外表，感到不滿意 ☐ ☐ ☐ ☐

22. 我幾乎可以做好每件事 ☐ ☐ ☐ ☐

23. 我常常一個人玩 ☐ ☐ ☐ ☐

24. 我常常覺得同學輕視我看不起我 ☐ ☐ ☐ ☐

25. 我不知道怎麼和同學相處一起玩 ☐ ☐ ☐ ☐

26. 我不喜歡我的好朋友，和別人一起玩 ☐ ☐ ☐ ☐

27. 我常常不能了解，同學他們所聊的話題或到底在說什麼 ☐ ☐ ☐ ☐

28. 我沒有任何好朋友 ☐ ☐ ☐ ☐

29. 雖然我知道同學表現很好，但我不知道如何稱讚他們 ☐ ☐ ☐ ☐

30. 我的同學不讓我參加他們的遊戲或活動 ☐ ☐ ☐ ☐

31. 當同學罵我或對我不友善時，我會馬上生氣 ☐ ☐ ☐ ☐

32. 雖然我常常和同學一起玩，我仍然覺得孤單寂寞 ☐ ☐ ☐ ☐

33. 我常常生病 ☐ ☐ ☐ ☐

34. 我覺得我的身體很健康 ☐ ☐ ☐ ☐

35. 我常常覺得自己比別人矮 ☐ ☐ ☐ ☐

36. 我覺得自己長的很漂亮（英俊） ☐ ☐ ☐ ☐

37. 我覺得自己的身材很好 ☐ ☐ ☐ ☐

38. 我常常覺得自子缺乏生氣及活力 ☐ ☐ ☐ ☐

39. 我常常覺得自己很懶惰 ☐ ☐ ☐ ☐

40. 我常常覺得頭痛 ☐ ☐ ☐ ☐

41. 我常常覺得頭暈 ☐ ☐ ☐ ☐

42. 我常常覺得肚子痛 ☐ ☐ ☐ ☐

43. 你希望自己達到怎麼樣的程度？

☐愈快離開學校愈好，不要唸書

☐國中畢業就好

☐高中（職）畢業

☐五專畢業

☐大學畢業

☐研究所畢業

44. 如果一切情形允許的話，以後你喜歡從事的行業或工作是：
_____.

45. 但是事實上你覺得你可能從事的行業或工作是：_____

非常謝謝您的協助與幫忙

APPENDIX L

中文訪談題目

對父母

一、請你告訴我，您如何參與你孩子學校的活動？

二、這對你孩子來說有多重要？

三、你最常參加的學校活動是什麼?

四、你覺得學校的哪項活動對你來說最困難?

五、為什麼你不常參加孩子學校的活動?

六、從你的經驗當中，女兒或兒子(男生與女生)在學校各方面的表現上有沒有不同?

七、從你的經驗當中，老大和老么或者排行中間的孩子在學校的表現上有沒有不一樣?

八、有些父母會因為孩子的性別不同，而決定是不是參加孩子學校的活動，你覺得怎麼樣?

九、有些父母會因為孩子的排行不同，而決定是不是參加孩子學校的活動，你覺得怎麼樣?

十、你在家怎麼協助孩子的學習活動？

十一、你認為你的協助有用嗎？或者重要嗎？

十二、你最常協助孩子學習活動中的哪一項?

十三、你覺得孩子的學習活動或過程中，哪一項你認為最困難?

十四、你希望孩子以後唸到什麼樣的程度？

十五、你認為學歷對他將來重要嗎？

十六、你希望孩子以後從事怎麼樣的行業?

十七、你認為工作或行業對孩子的將來重要嗎?

十八、你認為學業成績重要還是其他的適應行為重要?例如人際關係、對自我的自信或心理健康等等？

十九、你為什麼這樣想？

二十、你認為這個學校最好的方面是什麼?

二十一、這對孩子重要嗎?

對孩子

一、請你告訴我，爸爸媽媽如何參與你學校的活動？

二、這對你來說有重要嗎？

三、爸爸媽媽最常參加的學校活動是什麼?

四、你覺得學校的哪項活動對爸爸媽媽來說最困難?

五、為什麼爸爸媽媽不常參加你學校的活動?

六、從你的經驗當中，男生與女生在學校各方面的表現上有沒有不同?

七、從你的經驗當中，你班上排行老大和老么或者排行中間的孩子在學校的表現上有沒有不一樣?

八、有些父母會因為孩子的性別不同，而決定是不是參加孩子學校的活動，你覺得怎麼樣?

九、有些父母會因為孩子的排行不同，而決定是不是參加孩子學校的活動，你覺得怎麼樣?

十、你在家爸爸媽媽怎麼協助你的學習活動？

十一、你認為他們的協助有用嗎？或者重要嗎？

十二、爸爸媽媽最常協助你的學習活動中的哪一項?

十三、你覺得你的學習活動或過程中，哪一項爸爸媽媽認為最困難，最

沒有辦法幫助你?

十四、你希望以後唸到什麼樣的程度？

十五、你認為學歷對你將來重要嗎？

十六、你希望以後從事怎麼樣的行業?

十七、你認為工作或行業對你的將來重要嗎?

十八、你認為學業成績重要還是其他的適應行為重要?例如人際關係、對自我的自信或心理健康等等？

十九、你為什麼這樣想？

二十、你認為這個學校最好的方面是什麼?

二十一、這對你重要嗎?

對老師

一、 您覺得學校活動中，父母的參與度怎麼樣？

二、 你認為父母的參與重要要嗎?

三、 你喜歡他們來學校或班上參與的活動是什麼?

四、 你認為學校活動中，父母感覺最困難的活動是什麼?

五、 為什麼他們不常來參加孩子的學校活動？

六、 有些老師不喜歡父母參與學校或班上的活動，你的感覺如何?

七、 您們學校的校長對父母參與，他的感覺是什麼?

八、 從你的經驗當中，女兒或兒子(男生與女生)在學校各方面的表現上有沒有不同?

九 、從你的經驗當中，老大和老么或者排行中間的孩子在學校的表現上有沒有不一樣?

十、有些父母會因為孩子的性別不同，而決定是不是參加孩子學校的活動，你覺得怎麼樣?

十一、有些父母會因為孩子的排行不同，而決定是不是參加孩子學校的活動，你覺得怎麼樣?

十二、請你說說對於父母在家協助孩子的學習活動？

十三、你認為父母的協助有用嗎？或者重要嗎？

十四、他們最常協助孩子學習活動中的哪一項?

十五、你覺得父母對孩子的學習活動或過程中，哪一項你認為最困難?

十六、你認為學業成績重要還是其他的適應行為重要?例如人際關係、對自我的自信或心理健康等等？

十七、你為什麼這樣想？

十八、你認為這個學校最好的方面是什麼?

十九、這對孩子重要嗎?

對校長

一、您覺得學校活動中，父母的參與度怎麼樣？

二、你認為父母的參與重要要嗎?

三、他們最常參與的活動是什麼?

四、你認為學校活動中，他們感覺最困難的活動是什麼?

五、為什麼他們不常來參加孩子的學校活動？

六、您們學校的老師對父母參與，他們的感覺是什麼?

七、從你的經驗當中，女兒或兒子(男生與女生)在學校各方面的表現上有沒有不同?

八、從你的經驗當中，老大和老么或者排行中間的孩子在學校的表現上有沒有不一樣?

九、有些父母會因為孩子的性別不同，而決定是不是參加孩子學校的活動，你覺得怎麼樣?

十、有些父母會因為孩子的排行不同，而決定是不是參加孩子學校的活動，你覺得怎麼樣?

十一、請你說說對於父母在家協助孩子的學習活動？

十二、你認為父母的協助有用嗎？或者重要嗎？

十三、他們最常協助孩子學習活動中的哪一項?

十四、你覺得父母對孩子的學習活動或過程中，哪一項你認為最困難?

十五、你認為學業成績重要還是其他的適應行為重要?例如人際關係、對自我的自信或心理健康等等？

十六、你為什麼這樣想？

十七、你認為這個學校最好的方面是什麼?

十八、這對孩子重要嗎?