

**Effects of Parental Work Conditions on Children' School Achievement  
A Study of Dual- Earner Families in Malaysia**

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**ABSTRACT**

The purpose of this study is to analyze relationships between parental (dual-earner families) work conditions (work conditions, work hours, work tempo), parenting styles (parenting styles and parental involvement), children's task engagement behaviour and school achievement. This study takes account the demographic changes in Malaysian families as result of urbanization and industrial-economic based. The study was conducted using survey method approach based on human ecology theory employed 200 dual earner families as sample. Using path model analysis, the study indicates number of consistent relationships between demographic variables, parenting styles, children's task engagement behaviour and school achievement. Effects of mothers' and fathers' work conditions, parenting styles on children's behaviour and school achievement were about similar. Overall, parental work conditions, parental authoritarianism, parental authoritativeness, parental involvement, socioeconomic status (parental job status, salary, parental education) had strong effects on children's task engagement behaviour and school achievement. Children's task engagement behaviour also found to have strong effect on children's school achievement.

Key words: working conditions, influence on children, school achievement

**Efectos de las Condiciones Laborales de los Padres en el Éxito Escolar de los Niños  
Un Estudio de Familias de Doble Ingreso en Malasia**

**RESUMEN**

El propósito de este estudio es analizar la relación entre las condiciones laborales (condiciones de trabajo, horas de trabajo, ritmo de trabajo) de los padres (familias con doble ingreso) estilos paternales (modos paternales y ambiente paternal), el comportamiento de los niños en cuanto al planteamiento de metas y el éxito escolar. Este estudio toma en cuenta los cambios demográficos en las familias de Malasia como resultado de la urbanización y el basamento industrial-económico. El estudio se llevó a cabo usando el enfoque de método de entrevista basado en la teoría ecológica humana, se emplearon 200 familias con ingresos dobles como muestras. Usando el análisis de modelos, el estudio indica el número de relaciones consistentes entre las variables demográficas, estilos paternales, el comportamiento en el planteamiento de metas de los

niños y el éxito escolar. Los efectos de las condiciones laborales del padre y la madre, los estilos paternos en el comportamiento de los niños y su éxito escolar fueron similares. Sobre todo, las condiciones de trabajo de los padres, el autoritarismo paterno, el ambiente paterno, el estatus socio-económico (el estatus laboral de los padres, el salario, la educación de los padres) tuvieron un fuerte efecto sobre el comportamiento en el planteamiento de metas del niño y su éxito escolar. De igual forma se demostró que el comportamiento en cuanto a planteamiento de metas del niño tiene efectos fuertes sobre su desempeño escolar.

Palabras claves: Desempeño escolar, condiciones de trabajo, influencia en los niños

## **INTRODUCTION**

Research interest in family processes and their relation to children behavior and school achievement has been active in the past few decades. In recent years, due to demographic changes in the family as more mothers have to come to participate in the workplace, research on children's school achievement has been extended to examine the relation between school achievement and maternal employment. Under some conditions such as longer work hours, non-day shift, low job satisfaction; the effects have been found to be adverse on aspects of children's development (Barnett, 1999; Lachman and Boone-James, 1997; Lerner, 1994), behaviour (Rubin et al. 1996; Bogen and Joshi, 2001; Han, 2005), and school achievement (Heyns and Catsambis, 1985). In addition, researchers who have examined the relationship of work conditions such as work hours, work schedule, job demands, job supervision and job promotion have generally found some significant associations with maternal or parental feelings of role conflict, her parenting style and parental participation on children's school work (Allen et al. 2000; Heymann, 2000). The multiple effects of work conditions on families' well-being have also shown positive association with children's school achievement especially among lower income children (Miller, 2002; Huston et al., 2000; Gottfried, Gottfried and Bathurst, 1988). However, the relation is considered to be indirect because research has not been able to demonstrate that maternal employment per se is linked to low or high level of children's intellectual and cognitive development (Lerner, 1994; Gottfried, Gottfried and Bathurst, 1995). Maternal work conditions was expected to affect children's development

indirectly through its effect on parenting styles or other aspects of family processes (Gottfried, Gottfried, and Bathurst, 1995; Foster and Kalil, 2005).

Research on parental employment and children's outcomes have been conducted quite extensive in many countries such as United States, United Kingdom, Germany and Sweden. Review on these studies indicate that many have concentrated on maternal employment without taking account of trends for fathers' participation in dual-earner families in managing the household (Aldous, Mulligan and Bjarnason, 1998; Marsiglio, Amato, Day and Lamb, 2000). Fathers also contribute their income share and psycho-emotional aspects as result of their work conditions that may be reflected in the life of the family. Hence, fathers, like mothers play an important role in child development and therefore deserve to be included in future research (Gottfried, Gottfried and Bathurst, 1995; Bulanda, 2004). Further, it is possible that cultural differences in school facilities, community child-care facilities and home background in developing countries may result in different outcomes or findings from those outcomes reported in the developed societies. Therefore study about the similar issues is essential in the developing countries such as Malaysia. Moreover research that had been conducted on children's school achievement in Malaysia were mainly focused on direct effects without much attempt to examine effect of the family processes such as parenting styles. This issue is related also to the government policy to liberalize the economy and efforts to urbanize the Malays which has encouraged them to seek employment in the urban industrialized areas. In 1980s there was a massive migration of rural people to urban centers due to great demand of labour from an industrial sector. In the year of 2004 about 54.6 percent of Malaysian lived in the urban areas. The demands from the city life such as high cost of living have forced some mothers to leave their children for employment. About 62.8 percent of Malaysian mothers with children below 15 years of age working full-time. (Malaysia, 2004). Moving into full-time employment may result in tensions for those who have small children or children who still need child-care or supervision while they are away. This issue becomes more serious because there were about 68 per cent of families in Malaysia were a nuclear based families (Malaysia, 2004). The fact that Malays have more children than the other ethnic groups (i.e, Chinese, Indian) may add to the tensions among

them. Therefore it is not surprising that Malay families in the urban areas are higher in all types of domestic abuse as compared to Chinese and Indians. Conversely the Chinese who have been settled and established in the urban areas for many generations continue to face the reality of urban life without much trouble. The current research study attempts to investigate the relation between work conditions of Malay parents in dual-earner families and children's school achievement.

## **REVIEW OF LITERATURE**

Research on parental employment has proliferated over the past 40 years. However, the majority of these research studies were conducted on maternal employment and emphasized two major areas: effects of maternal employment on family well-being (i.e. marital satisfaction, family happiness, family conflicts) and effects of maternal employment on emotional and personality development (Menaghan and Parcel, 1990). The reason for this phenomenon is that many researchers often yielded the mother's role in child's development as pivotal and irreplaceable, therefore many studies were expected to detect negative effect of maternal employment on children. This assumption led to much research designed to examine the issue from a maternal deprivation perspective (Hand, 1957; Nye, Perry and Ogles, 1963; Burchinal, 1963). Although there are research studies conducted to examine effects of maternal employment on the child's development, research that has focused specifically on the influences of maternal employment on child's cognitive and intellectual development is limited (Gottfried, Gottfried, and Bathurst, 1995). More attention has been paid to the influences of infant and social emotional development and parent-child attachment (Lerner, 1994). The few studies that have been conducted present inconsistent results: sometimes infants and children of employed mothers performed better in cognitive development than children of unemployed mothers and sometimes they performed lower (Hock, 1980; Schubert, Bradley-Johnson and Nutal, 1980; Pederson, Cain, Zaslow and Anderson, 1983). Similarly, research that has been conducted to examine effects of mothers' employment on children's school achievement yielded inconsistent findings: with few exceptions of mother's employment on achievement, the children of working mothers differ from children of non-working mothers. The exception here referred to sub-group of the

population white middle-class boys growing up in intact families score lower in school achievement than white middle-class girls and black lower-class boys and girls (Banducci, 1967; Bronfenbrenner and Crouter, 1982; Hoffman, 1989).

Many psychologists believe that the inconsistent findings result from the methods and samples used in the studies in that most research in this area use direct comparisons between employed and non-employed mother, lower-and middle-income families, and have taken account of only a few simple aspects of parental working conditions (e.g salary, work time, occupational status) to be examined with children's school achievement (Hoffman, 1984, 1989; Lerner, 1994). Other psychologists point out that the inconsistent findings also result from failure to take account of differential effects in particular groups such as lower-income and minority groups ( Bogenschneider and Steinberg, 1997; Hoffman, 1989). Although comparison is important in the sense that it gives better outcomes, direct comparisons are inadequate because differences between groups could be attributable to other confounding factors (e.g income, socioeconomic status) not to the parental employment per se ( Gottfried, Gottfried and Bathurst, 1995). The simple causal-direct approach that has been applied in these studies led psychologists such as Bronfenbrenner and Crouter (1982) to assert that “ most studies on employment and child outcomes involves a leap from very start of the causal process directly to the outcomes leaving everything in between to the imagination” (pp.71). This statement gives clues that the link between maternal employment and child development is not direct one, and that factors related to the child, the families, parenting, parental involvement, early child experiences, and child-care contribute to child's development. Understanding such factors in multidimensional perspective will assist us to understand the factors ( or underlying factors) that determine the relationship between parental employment and children's development.

In a multidimensional perspective, a range of mediating and moderating variables are examined in investigating the links between two factors in the present studies. They may affect the direction and strength of the relationship between variables such as parental work conditions and children's school achievement, and may help us to understand under

what conditions and parental employment must also extends its scope to examine the importance or effect of father's employment or dual-earner families on child development. This suggestion is being highlighted here because many research studies on parental employment have been carried out at the individual level and show less concern about the importance of the fathers' role in child development. Previous research findings indicates that fathers' participation in managing the family increased when wives are working ( Greenberger and Goldberg, 1989, Lamb, 2000; Foster and Kalil, 2005). Moreover, research on paternal involvement in the past were emphasized on topics related to : gender relations, divorce and fatherhood, fatherless, social role, interaction with children, father-child relationships fathers' commitment etc. ( Marsioglio et al. 2000). Research on fathers' involvement therefore needs to be expanded in line with the changes of the family pattern, that is more and more families are nuclear and dual-earner based. In dual-earner families, fathers, like mothers take care of their children' clean up the house, do the routine shopping, and monitor their children's schooling activities (Bulanda, 2004; Marsioglio et al. 2000). It is therefore important to include fathers' participation in the family process in the future research.

## **RESEARCH DESIGN**

The determinants of school achievement have long been a subject of interest among both educational psychologists and sociologists. Generally, educational psychologists tend to focus on the student's personality and parent-child interaction processes as important variables of school achievement whereas sociologists tend to give emphasis to socio-cultural variables in explaining variation in children's school achievement. In recent years, studies on determinants of children's school achievement have been extended to another area that is parents' work conditions or parental employment. In the Malaysian context, the traditional family with a home-maker wife and bread-winner husband is disappearing rapidly. Little research has been directed towards linking specific characteristics of parents' employment with children outcomes such as school achievement ( Gottfried, Gottfried and Bathurst, 1995; Hill et al 2005). For example, potential aspect to be investigated "is effect of parental employment which depend on the age, sex, or temperament of the children or on timing, quality, or intensity of

employment and that the effects on children may be mediated or moderated by a variety of family processes and interactions both inside and outside the home” ( Foster and Kalil, 2005, pp. 829 ). The present study's focus is consistent with this suggestion.

The present study attempts to narrow down the previous and present research gap and developed a model incorporating a range and distal and more proximal variables relevant to these relationships is based on a theory of human cultural ecology (Bronfenbrenner, 1979; 1986; Bronfenbrenner and Crouter, 1983) which proposes that family, home environment, social and cultural worlds interact each other at various levels in ways which affect the child and family. While many previous studies had focused only on intra familial processes in the family microsystem, the conceptual paradigms put forward by Bronfenbrenner (1979) emphasized ways in which intra familial processes are affected by extra familial conditions (Bronfenbrenner, 1986; Wertsch, 1991). In formulating these interactive processes, Bronfenbrenner (1979) suggests that a child development is influenced by four environmental systems namely microsystem, mesosystem, exosystem and macrosystem. The objective of the present study is to examine the relationship between parental works conditions, parenting styles and children's school achievement. There are two directions of relationships examined : direct relationship between seven suggested variables in the model and children's school achievement (SES , parental work conditions, parenting styles, parental monitoring, parental beliefs on their self-efficacy and children's social skills and children's task engagement behaviour), and indirect relationships between parental work conditions, parenting styles, children's task engagement behaviour and children's school achievement.

Figure 1 illustrates the major categories of variables included in the model. The first column of the figure indicates two variables that are parents' work conditions (exosystem) and children's family structure (microsystem),background. These variables represent the basic input characteristics of children, their families and parental work conditions. This level of variables also represent the basic input characteristic of children, their families and parental work conditions. This level of variables also represents some of the more important social-psychological and school organizational influences included

in models such as Wisconsin Model of educational and Occupational attainment (Sewell, Haller and Portes, 1969; Sewell and Hauser, 1980), general Cognitive Ability (Mercy and Steelman, 1983) and Children's Learning Environment Model (Marjoribanks, 1994). Family structure background and parents' work conditions are placed in the same section because they are interrelated or inseparable (Googin, 1991; Hoffman, 1989). The present model however expands the original models by adding six variables (including parental working processes such as job demand, job supervision and job promotion) in the parents' work conditions vector as suggested by previous research (eg. Gottfried, Gottfried and Bathurst, 1995; Foster and Kalil, 2005). The first set of variables are related to family structure background : child sex and helps hours from maid or baby sitter. The second set of the model includes subgroups of variables : parenting styles and parental involvement in children's school activities and these variables are conceptualized as part of the proximal home background as suggested by Gottfried, Gottfried and Bathurst (1995) as part of microsystem and mesosystem variables in the first panel. The parenting subgroups includes three types of parenting styles : authoritarian, permissive and authoritative. Parental involvement in children's school activities includes four subgroups of variables : parental monitoring, parents' belief on the importance of children's social skills, parents' beliefs on the importance of children's social skills, parents' beliefs on the importance of children's self-management skills and parental self-efficacy. The combination of these variables in this section (Panel 2) are adapted from parental involvement in children's schooling models ( eg. Hoover-dempsey and sandler, 1997; Bogenschneider, 1997). The third and fourth sections of this model focus on children's behavior in the classroom and their school achievement. These two variables represent the output of the other variables. They are arranged consecutively rather than together because children's behavior in the classroom can also affects children's school achievement ( Finn and Cox, 1992; Finn, PannoZZo and Voelkl, 1995).

## **SETTING**

Research for this study was carried out in the state of Negeri Sembilan in the Malay Peninsula. The state of Negeri Sembilan was chosen because its demographic, social and economic backgrounds were consistent with the study's model background : (1) has



experienced rapid development in urbanization and industrialisation, (ii) its development provides job opportunities for both rural and urban population, (iii) it has multicultural communities and (v) located between another two industrialised states in the Malay Peninsula ; Melaka and Selangor Darul Ehsan. In the year of 2004 the state of Negeri Sembilan has about 900,000 people (52.6 per cent = Malay, 29.7 per cent Chinese and 17 per cent Indian and Others). Rapid industrialisation development and strategic location of Negeri Sembilan encourage its population work in the private industrial sector. Similar to her neighbouring states in west coast of Malay Peninsula, Negeri Sembilan is a multicultural state and its population reflects the multiculturalism of Malaysia's population as a whole. In terms of education, the Negeri Sembilan government provides 160 primary schools with about 54,000 children in Year 1 thorough Year 3 (Primary 1, 2, 3). The participants of the current study involved dual-earner Malay families with target children living in the urban areas.

## **METHODOLOGY**

### *Sample of the Study*

This study involved 200 intact families which comprised 200 full-time working mothers and 200 full-time working fathers. The study's sample comprised 200 Malay families, 200 children and 45 class teachers. The study only focused on Malay dual earners families because majority of them are new in the urban environment as compared another major ethnic in urban Malaysia, the Chinese group. This is the major limitation of this study. Moreover, the study only involved 200 Malay families as sample and only selected from one state out of 14 states in Malaysia. However, the state chosen was appropriate because its reflects the Malaysian society as a whole : comprises three major ethnics, Malay, Chinese and Indian. Future research is recommended using bigger sample focused on comparison between ethnics such as between Malay and Chinese families. Sample background for this study is divided into four parts : family background, fathers' and mothers' background, children's background and teachers' background.

### *Family Demographic Background*

Of the 200 families, 90.5 per cent (181) had nuclear family background and only 9.5 per cent (19) had extended family background. It seemed that some elderly parents of Malay families still live in the rural areas and refused to follow their children to the urban centres. Overall, percentage of nuclear family for the sample was higher than the national percentage that was 68 per cent (Malaysia, 2004) The mean of number of children per family in this study is 3.9, about 31.5 per cent (63) of families had 4 children, 21 per cent (42) had three, 15.5 per cent (31) had 2 children and 10.5 per cent (21) had had more than 7 children. For the purpose of this study, only families with more than one children were selected as sample. Of the 200 families in the sample, 5 per cent (10) had monthly income of RM1600 or less and the balance of that number (95 per cent = 190) were families with monthly income between RM 1601-RM6000. Overall, many families had income between RM2500- RM6000. With that income about 47 per cent of families had live in maid or family helper.

### *Mothers*

There were 200 working mothers and fathers in the study. Mean of mother's age in the study was 39 years and had various educational and occupational background. About 45% (90) of mothers completed 9 years of education (lower secondary level), 24.5% (49) completed secondary level (SPM= Year 11) and only 15% (30) received tertiary education at diploma and degree levels. With the secondary school education background, many of the mothers secured job as production operator in the factories, 32.5% (65), the lowest job status in the given ranking. The rest of them work in other fields: repairs (16.5% = 33), administration support (12% = 24) and semi-professional (14% = 28). Most mothers work 44 hours per week and only 16.5%(33) had non-day working shift.

Table 2 : Mean, Standard Deviations and Ranges for Demographic Variables (Mothers )

Variables	Mean	SD	Ranges
Mothers n=200			
Age of mothers	39	.82	29-49 years
Mothers' educational attainment	2.5 (between	1.3	Below Year 9– Bachelor degree Same
Below Form3=38% (76)	Year 9-Year 11)		
Completed Form 3=21%(43)			
Completed Form 5=30%(60)			

Completed Form 6=5%(10) 2-3 years diploma=3%(6) BA/BS= 2.5%(5)			
Mothers' occupational status Professional = 2.5%(5) Professional junior=13.5%(27) Semi professional=14%(28) Marketing promoter, sales=18%(28) Administration support=12%(24) Mechanic and repair=16.5%(33) Production operator=32.5%(65)	4.9 (semi professional)	1.9  1.96	Production operator to professional
Mothers' monthly income Less than RM500=15.5% RM500-RM1000=45%(90) RM1000-RM1500=24.5%(49) RM500-RM2000=10%(20) RM2000-RM2500=2.5%(5)  RM2500 and above=2.5%(5)	RM1250	1.44	RM500- RM3000
Mothers' work hours (weekly)	42 47	.86 .83	30-49 hours 30-49 hours
Mothers' work temp Non-day shift = 16.5% (33) No shift =83.5% Father's work tempo Non-day shift = 16.4% (33) No Shift = 83.5% (167)	1.83  1.83	.37  .37	

### *Fathers*

Malay fathers in the sample had age slightly older than wives, mean of the fathers age was 40. Overall fathers had better education than mothers, 31.5 % (63) of them received diploma and degree levels, 45%(90) completed lower secondary, and 21% (42) completed secondary education. With such education background, about 25.5% (51) of them worked as production operator, 16% (32) as mechanic and repairers, 14.5% (19) as administration supports and 10.5% as marketing and sales officers. Only 33.5% (67) working as semi-professional staff and professional executives. Overall, mean of the fathers' income was between RM1500-RM2000. Range of income for fathers was quite high between RM 550 (per month) to RM2500 (per month). There were about 10.5%

(21) of fathers received monthly salary around RM500. The mean of working hours for fathers was 47 hours per week, slightly higher than mothers, which was 42 hours. Similar to mothers, about 16.5% (33) of fathers had non-day working shift.

Table 2 : Mean, Standard Deviations and ranges for Demographic Variables (Fathers )

Variables	Mean	SD	Ranges
Fathers n=2000			
Age of fathers	40	1.1	30-49 years
Fathers' educational attainment Below Form3=11.5%(23) Completed Form 3=16.5%(33) Completed Form 5=39%(78) Completed Form 6=9.5%(19) 2-3 years diploma=7.5%(15) BA/BS= 16(32)	3.3 (between Form 5-Form6 )	1.3	Below Year 9– Bachelor degree Same
Fathers' occupational status Professional = 3%(6) Profession junior=19.5%(39) Semi professional=11%(22) Marketing promoter, sales=10.5%(21) Administration support=14.5%(19) Mechanic and repair=16%(32) Production operator=25.5%(51)	4.6 (semi professional)	1.9 1.96	Production operator to professional
Fathers' monthly income Less than RM500=2.5%(5) RM500-RM1000=45%(90) RM1000-RM1500=21%(42) RM500-RM2000=21.5%(43) RM2000-RM2500=2%(4)  RM2500 and above=8%(16)	RM1500	1.3	RM500-RM3000
Fathers' work hours (weekly)	47	.83	30-49 hours
Fathers' work tempo Non-day shift = 16.5% (33) No shift =83.5%	1.83	.37	
Father's work tempo Non-day shift = 16.4% (33) No Shift = 83.5% (167)	1.83	.37	

*Children*

There were altogether 200 children in the study, 50 per cent (100) of them were males and 50% were females. About 29.5% (59) of the children were 7 years of age, 34.5 % (69) 8 years, and 36% (72) were nine years. Because children's age go consistently with class in school, about 29.5 per cent (59) of the children were in Grade 1, 30 per cent (60) in Grade 2 and 38% (76) in Grade 3. Children's background was provided with their school achievement based on there major subjects : Reading (Mean =80.4 %, SD= 15.37), Malay Language (Mean 80.70 per cent, SD = 16.30) and Mathematics (Mean 77.20%, SD= 19.56). All three subjects' scores were based on mean of four times classroom tests developed by school teachers based on School Based Test Format.

### *Teachers*

The present study examined relationships between parents' work conditions, parenting styles and children's school achievement. The study therefore involved school and teachers. Children of this study were selected from 15 primary schools in Seremban, the state capital of Negeri Sembilan. There were 45 teachers involved in the study. Their roles were helping researcher to gather children's information, distributing research's questionnaire and giving children assessment based on three compulsory subjects in the Malaysian primary school curriculum : Malay Language, Mathematics, Reading. Out of 45 teachers selected, 25 were females and 20 were males and had mean of age of 40 years. Most of them had teaching experience more than 10 years and graduated from Teachers Training College in Malaysia.

### *Research's Instruments*

There were eleven types of measures used in the study taken or adapted from previous researchers. All measures were tested again at the first stage of the study in the pilot study using 80 families. Sample for the pilot study involved 80 families and they were not included in the main study. Overall the cronbach alpha coefficients of all measures were between 0.65 to 0.85 : Work Conditions comprises three parts taken or adapted from Smith, Kendall and Hulin (1969) and modified by Roznowski (1980) = Job Demand 0.85; Job Supervision 0.81, Job Promotion 0.85; Parenting Styles taken or adapted from Lamborn et al (1991) = Authoritarian 0.65, Permissive 0.62, Authoritative 0.68; Parental

Monitoring adapted from Block (1965) and Milne et al.(1986) = 0.81; Parents' Beliefs in Child's Social Skills 0.83; Parents' Beliefs in Child's Self-Management Skills= 0.83 all taken from Okagaki and Sternberg's Intelligence Scales (1993) ; Parents Self-Efficacy Scale taken and adapted from Gibson and Denbom (1984) = .81; and Children's Behaviour Checklist taken from Fincham, Hakoda and Sanders(1989) =0.86.

### *Procedures*

The study was conducted following a survey method which involved parents' responses to questionnaires. Research study was conducted in one year between August 2006 to August 2007. The first step of the procedures started with school visit. Researcher and teachers identified appropriate children and families to be sample for the study (dual earner family background, had at least two children, mixed socio-economic status background). Step 2 involved researcher distributing questionnaires through school children. In some cases researcher visited families and assisted parents who were not sure how to give response. Mothers and fathers' responses were measured separately because the study aimed to investigate the differences of father and mother work conditions, parenting style and parental involvement on children's school achievement. While different procedures were employed with these participants, the enhanced validity of data gathered was advanced as the justification for these variations.

## **RESEARCH FINDINGS**

The analyses for this research study consisted of a series of path models testing (LISREL Version 8.50, Scientific Software International 2001) for the direct and indirect links between (a) demographic variables (i.e parental work conditions, socio-economic status, amount of home help received and child sex), and (b) parenting variables and parental involvement) and children's task engagement behaviour and school achievement. Two criteria were used in determining which of the path coefficients should be retained for interpretation. First, statistical significance was judged on the basis of  $t$ -value of greater than 1.96 or less than -1.96 ( $\alpha = 0.05$  for  $df > 120$ ). However, several researchers have noted that statistical significance can be misleading criterion in path analysis (e.g Pedahzur, 1997), urging that the absolute magnitude of the coefficients also taken into

account in interpreting results. As such, only coefficients greater than 0.1 were retained for interpretation in this case (Pedhazur, 1997).

### *Mothers Versus Fathers*

The correlation matrices for fathers and mothers appear in Table 1 and Table 2, respectively. The corresponding path diagrams, showing standardized coefficients for the model parameters are shown in Figure 1 and Figure 2.

*Effects on Parenting Style and Beliefs.* As indicated, for both mothers and fathers in the sample, SES was negatively related to authoritarianism ( $p = -0.39$ ,  $t = -5.98$ ;  $p = -0.32$ ,  $t = -4.75$ , respectively) but positively related to authoritative (SES) ( $p = 0.31$ ,  $t = 4.55$ ;  $p = 0.32$ ,  $t = 4.70$ ). For mothers, there were also significant positive relationships between child sex and authoritarianism ( $p = -0.19$ ,  $t = -2.99$ ), and between SES and self-efficacy ( $p = 0.18$ ,  $t = 2.40$ ), along with a negative relationship between help hours and beliefs in social skills ( $p = -0.15$ ,  $t = -2.11$ ). For fathers, on the other hand, SES had significant positive effect on beliefs in the importance of self-management ( $p = 0.19$ ,  $t = 2.52$ ).

The present study placed parenting styles as one of the important factors in relation to children's school achievement. There were five variables suggested to be determinants of parenting styles: socioeconomic status, work conditions, child sex, help hour family received and parental work tempo. As compared to other variables, this study indicated that socioeconomic status played major influence in determining parenting styles. For both mothers and fathers, higher socioeconomic status had strong positive relationship with authoritative and lower socioeconomic status, on the other hand had strong negative relationship with authoritarian and permissive styles. Many educated parents in the study's sample deployed authoritative type of parenting which give ways to children to be independent and assertive. These qualities lead to the development of personality which has positive characteristics of task engagement learned-mastery behaviour in classroom such as confident, challenging, cooperative, high learning readiness and competent. Positive personality seems appropriate with the modern teaching and learning process in the classroom which demand full participation from children. On the other hand, low-

income parents deployed more traditional type of parenting which is called authoritarian. Children's are forced to be obedient, following rule without explanation or reasoning, maintaining communication gap with adults and worst one could be too much of punishment. Ineffective parenting style increases the probability of child conduct problems in the classroom. The elements of this type of personality could be similar to the elements of negative characteristics of task engagement behavior such as aggressive, unwilling to cooperate, lazy or lack of motivation, lower learning readiness and lack of decision-making and problem-solving skills.

*Effects on Task Engagement Behaviour.* For mother and fathers, task engagement was negatively related to authoritarianism ( $p = -0.16, t = -2.29$ ;  $p = -0.22, t = -3.25$ ), but positively related to child sex ( $p = 0.17, t = 2.54$ ). For mothers, task engagement was also positively related to work conditions ( $p = 0.25, t = 3.70$ ), whereas for fathers, engagement was related negatively to parental monitoring ( $p = -0.14, t = -2.11$ ) and positively related to child sex ( $p = 0.20, t = 2.98$ ). Also, for fathers, task engagement was indirectly related (through the parenting style variables) to SES ( $p = 0.10, t = 2.54$ ).

Task Engagement Behaviour had two variables which were combined together : learned mastery behaviour and learned helplessness behaviour. Focussing on behaviour with strong relevance in mediating academic performance, Fincham, Hakoda and Sanders (Jr.) (1989) reported that children behaviour (e.g. dependent, reluctant, low self-esteem) was stable over year period and predicted children's school achievement. This study found that children behaviour was associated closely with family background variables and one important aspect of the family background was parenting styles. Research findings have consistently supported that parental punitiveness, inconsistency and unresponsiveness are correlated significantly with children's negative behaviours such as low self-confidence, conduct disorders and higher level overall social maladaptation and psychological disorder (Simons, Chao and Conger, 2001 ). Poor parenting behaviours on the other hand are associated with socioeconomic status ( e.g low occupational status, low salary, low educational attainment, economic loss) which brings stress to parents, irritability, hostility and erratic behaviour towards the child ( Lytton, 1990; Moffit, 1997).



*Effects on School Achievement.* For mothers and fathers, school achievement was related positively to task engagement behaviour ( $p = 0.41, t = 7.61$ ;  $p = 0.44, t = 8.14$ , respectively) child sex ( $p = 0.11, t = 2.12$ ;  $p = 0.13, t = 2.53$ , respectively), SES ( $p = 0.16, t = 2.69$ ;  $p = 0.21, t = 3.62$ , respectively), the latter effect also reflected in indirect effects through the parenting style and task engagement variables ( $p = 0.19, t = 4.00$ ;  $p = 0.21, t = 4.39$ , respectively). For mother and fathers, *achievement was negatively related to authoritarianism* ( $p = -0.18, t = -3.46$ ;  $p = -0.23, t = -4.31$ , respectively) and help hours received ( $p = -0.14, t = -2.89$ ;  $p = -0.18, t = -3.53$  respectively).

For mothers, achievement was also positively related to authoritativeness ( $p=0.15, t = 3.09$ ), and work conditions ( $p = 0.13, t = 2.53$ ). The latter effect was also reflected in a significant indirect effect through the task engagement variable ( $p = 0.19, t = 3.18$ ). For fathers, both child sex and authoritarianism had significant indirect effects on achievement through the parenting style and task engagement variables ( $p = 0.14, t = 3.56$ ;  $p = -0.10, t = -3.02$ , respectively).

The present research indicates that there are six major variables significantly related direct or indirect to children's school achievement : task engagement behaviour, child sex, socioeconomic status, parenting styles ( authoritarian, authoritative and permissive) and help hours family received. Fathers' socioeconomic status had stronger effect on children's school achievement than mothers'. Similarly, fathers' authoritarianism had stronger effect on children's school achievement than mothers' indicating that fathers were more authoritarian than mothers. This finding suggests that fathers' socioeconomic background had stronger effect than mothers' socioeconomic background in relation to children's school achievement. However, mothers' role in children's upbringing could be more effective than fathers because they were less authoritarian. The help hours family received had negative relationship with children's school achievement especially for mothers. It is predicted that the higher hours help hours family received, the more careless parents are, in term of monitoring their children's academic progress. Overall, this study supports the pervious research findings in relation to children's school

achievement : task engagement behaviour (Finn and Cox, 1992; Fincham, Hakoda and Sandlers, 1989; Finn, Pannozzo and Voelkl, 1995), socioeconomic status (Belsky, 1988; Belsky, 1990; Hoffman, 1984 b), parenting styles and parental involvement ( Gottfried, Gottfried and Bathurst, 1995; Felner et al., 1996); child sex or gender of children (Hoffman, 1980; Bogenschneider and Steinberg, 1997).

## **DISCUSSION**

Children's school achievement is an important topic to be discussed in Malaysia especially when concern with Malay children in the urban areas because their parents are new migrants. Directly, Malay children's school achievement was influenced by children's task-engagement behaviour, families' socio-economic status background, parental authoritativeness, parental authoritarianism (negative), and the extent of help hours the family received. Several variables were thus influential for children school achievement, but family socio-economic status was positively linked with school achievement. Indirect effects of variables from panel one of the study model (work conditions, work tempo, socio-economic status, help hours family received and child sex) on children's school achievement were largely mediated through two variables in the second panel: parenting style (authoritarian, permissive, authoritative) and parental involvement (monitoring, parents' beliefs in the importance of social skills, beliefs in the importance of self-management skills, and parental self-efficacy) and one variable in the third panel of the study (children's task-engagement behaviour).

Work conditions had a small direct effect on children's school achievement particularly through mothers, and the effect was modest. Indirectly, work conditions had no significant effect on children's school achievement. For the fathers' model, work conditions had significant effects on parental monitoring and self-efficacy indicating that higher work conditions were associated with higher fathers' monitoring level and self-efficacy. Effects of mothers' work conditions were significant on all of the parental involvement subvariables especially on parental monitoring, beliefs in self-management skills, and beliefs in self-efficacy indicated that higher work conditions associated with higher mother involvement in their children's educational activities. Effects of work

conditions on panel two of the model were significant only for the fathers' model and only involved effects on self-efficacy and fathers' monitoring levels, indicated that higher work conditions affects fathers' monitoring level and self-efficacy. Effects on mothers' model were not clear on all mothers' involvement indicating that work conditions had no direct effects on all mothers' involvement variables in the panel two of the model.

Work tempo had no clear direct effect on children's school achievement. For both models, help hours had small direct effects on children's school achievement. Help hour the family received had significant direct effects on parents' self-efficacy and parental monitoring levels, indicating that effects of help hour on parental involvement was not clear; this could be because overall Malay families had more children than two and help hours may have been used for other purposes such as multiple house chores.

As shown in the path models socio-economic status had mixed direct and indirect relationships with children's school achievement. Socio-economic status (SES) had a modest direct relationship with children's school achievement. A significant relationship between socio-economic status and children's school achievement appeared clearly in both models, suggested that socio-economic status still played an important role in determining children's school achievement in that higher SES was associated with children's higher school achievement and lower SES was associated with children's lower school achievement. SES also had indirect effects on children's school achievement mediated by parenting style, parental involvement, and children's task-engagement behavior. Again, for mothers and fathers, SES had positive effect on parents' authoritative style but negative on parents' authoritarianism and permissiveness and these effects were similar to those reported in western samples (Dornbusch et al 1987; Dunifon and Kalil, 2005).

For both mothers and fathers, socio-economic status had indirect effects on children's task-engagement behavior. SES was positively related to parents' authoritative style but negatively related to parental authoritarian and permissive style suggesting that the parenting style adopted at higher socio-economic status levels was characterized by

greater authoritative interaction which partly mediated the children's task-engagement behavior and school achievement. SES also had positive relationships with parents' authoritative style and negative with authoritarian and permissive pattern. Indirectly, SES had modest positive relationship with children's task-engagement behavior and school achievement mediated partly through parents' authoritativeness but negatively through parents' authoritarianism and permissiveness. Overall, for both fathers and mothers, SES had substantial effects on children's school achievement through its relationship first, with authoritative style, and then children's task-engagement behavior. Effects of SES through association with permissive and children's task-engagement behavior on children's school achievement for both groups were negative and smaller.

Effects of SES on parenting style were fairly consistent, indicating that SES was negatively associated with authoritarian and positively related to authoritative subscale. SES also had a negative association with parental permissiveness. Higher SES was associated with higher authoritative style and at the same time lower authoritarian style. It looks like that in Malay families, both mothers and fathers play similar role in raising their children and this phenomenon is a new and positive development. SES also had indirect relationship with children's school achievement through its relationship with parental involvement variables. At higher SES levels, scores in the parental involvement variables were also higher especially for parents' beliefs in the importance children's self-management skills, self-efficacy and parental monitoring. Similar findings were found in the western samples (Lareau, 1987; Hoover-Dempsey, Bassler and Brissie, 1987). For mothers, at higher SES levels, reported higher self-efficacy and monitoring in relation to children's school achievement. The reason for this outcome could be related to their higher level of educational attainment and higher aspirations for their children.

Parental involvement emerged as an important mediating variable for SES, in relation to children's school achievement. Effects of work conditions on parental involvement variables were small. Similarly, direct effects of self-efficacy, beliefs in self-management and beliefs in social skills on children's task engagement and school achievement were

also small. Parental monitoring appeared as the only significant subvariable in the parental involvement cluster in relation to children's task-engagement behavior and school achievement. Further, indirect effects of SES, parental work conditions and help hours on children's school achievement were found through parental involvement. Overall, for both mothers and fathers, work tempo showed no clear effects on parental involvement variables

Overall, the outcomes of the present study support the ecological model which was used as direction for the study. Aspects of children's family background such as SES, child sex, work conditions and help hours had significant relationships with parenting styles and parental involvement variable in panel 2 of the study and then indirectly had significant relationships with children's task-engagement behavior and school achievement in panel 3 and panel 4. The relationship of all variables in the model which may be interpreted as consequential to the implementation of government policy which has modernized and urbanized the Malay who came from rural areas and had prior agriculture and fishing economic backgrounds. Almost all factors in the study's model had relationships with children's school achievement directly or indirectly, but the processes of how each factor affected other factors (mediating variables) and children's school achievement showed some differences.

## **CONCLUSION**

The present study indicates that in dual-earner families both fathers and mothers play important roles in determining children's school achievement. For both mothers and fathers, almost all variables suggested in the model are related to children's school achievement. Differences between the two models more or less are concerning the strength of effect of each variable on children's school achievement. For example, for both mothers and fathers, SES affected children's school achievement but fathers' effects are stronger. The relationships of all variables suggested in the model appeared in two major directions: direct and indirect. Four most significant set of variables had strong effects on children's school achievement are: parental work conditions, parenting styles, parental involvement and children's task engagement behaviour. Effects of these

variables on children's school achievement were moderated by one important variable : SES. For both mothers and fathers, directly and indirectly SES had strong effects in almost all other variables in the model : parenting styles, parental involvement, and children' task engagement behaviour. If there any program and plan to improve children's school achievement in Malaysia, as a whole efforts must be taken to improve quality of life for lower-income population especially in the urban areas. Children' school achievement in Malaysia is no longer referred to ethnic group variable like 20 years ago but the new scenario appeared : children's school achievement is indicated by social-class; lower-income children performed lower in school as compared to middle-class children who performed higher. This phenomenon cannot be ignored because it may affects the nation's stability in long run. All in all results of this study give answers to the major question of the study as suggested by previous researchers: how the family processes and parental working processes affects children's school achievement.



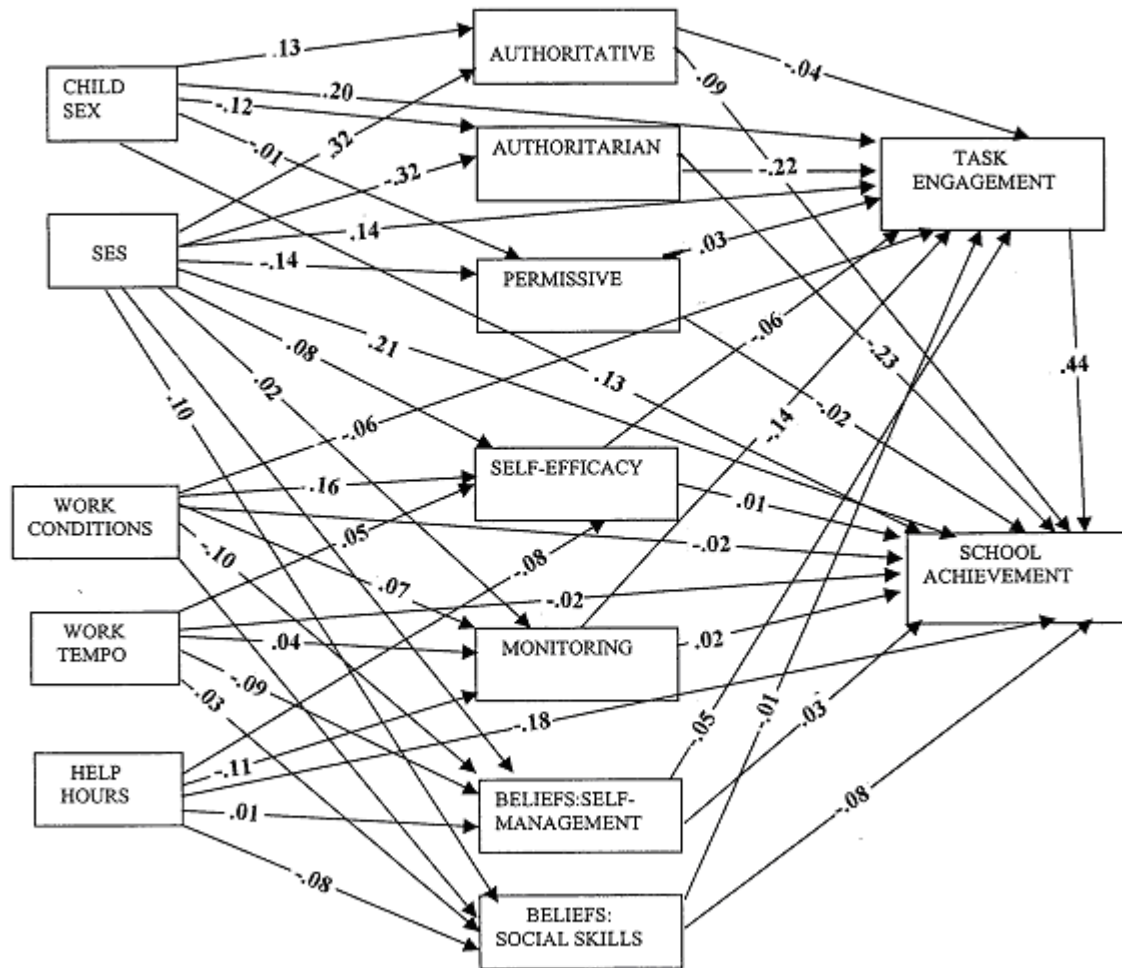


Figure 2 : Path Diagram for Malay Fathers



Table 1. Correlation Matrix for Malay Fathers

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Child Sex	1.00												
2. Socio-economic status	-0.05	1.00											
3. Home help hours	0.15	0.12	1.00										
4. Work Conditions	0.10	0.34	0.12	1.00									
5. Authoritarian	-0.11	-0.32	-0.15	-0.28	1.00								
6. Permissive	-0.01	-0.14	-0.17	-0.28	0.30	1.00							
7. Authoritative	0.12	0.31	0.03	0.29	-0.45	-0.27	1.00						
8. Monitoring	0.04	0.03	-0.10	0.06	0.00	0.12	0.14	1.00					
9. Beliefs in self-management	-0.09	0.16	0.01	-0.02	0.10	0.03	0.03	0.24	1.00				
10. Beliefs in social skills	-0.07	0.06	-0.08	-0.06	0.06	-0.02	0.18	0.34	0.38	1.00			
11. Self-efficacy	0.08	0.13	-0.05	0.17	-0.11	-0.10	0.24	0.41	0.36	0.48	1.00		
12. School achievement	0.22	0.40	-0.08	0.26	-0.47	-0.17	0.36	0.01	0.01	-0.04	0.12	1.00	
13. Task engagement	0.21	0.24	0.03	0.18	-0.32	-0.15	0.23	-0.07	0.02	0.01	0.11	0.61	1.00

Table 2. Correlation Matrix for Malay Mothers

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Child Sex	1.00												
2. Socio-economic status	-0.05	1.00											
3. Help hours received	0.15	0.12	1.00										
4. Work Conditions	0.12	0.35	0.01	1.00									
5. Authoritarian	-0.18	-0.38	-0.09	-0.36	1.00								
6. Permissive	-0.06	-0.11	-0.07	-0.20	0.24	1.00							
7. Authoritative	0.05	0.31	0.01	0.23	-0.42	-0.23	1.00						
8. Monitoring	-0.08	0.17	-0.02	0.14	-0.07	-0.02	0.18	1.00					
9. Beliefs in self-management	-0.04	0.10	-0.03	0.11	0.06	0.00	0.15	0.45	1.00				
10. Beliefs in social skills	-0.10	0.04	-0.14	0.04	0.15	0.05	0.05	0.43	0.50	1.00			
11. Self-efficacy	0.08	0.19	-0.04	0.10	-0.18	0.03	0.20	0.53	0.49	0.40	1.00		
12. School achievement	0.22	0.40	-0.08	0.44	-0.50	-0.07	0.40	0.13	0.01	-0.04	0.17	1.00	
13. Task engagement	0.21	0.24	0.03	0.37	-0.32	-0.03	0.24	0.07	0.04	0.00	0.06	0.61	1.00

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