



Faculty of Cognitive Sciences and Human Development

**THE EFFECT OF FAMILY SOCIO-ECONOMIC STATUS AND
PARENTS' INVOLVEMENT TOWARD STUDENTS'
MATHEMATICS ACHIEVEMENT**

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ACHIEVEMENT**

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ABSTRACT

THE EFFECT OF FAMILY SOCIO-ECONOMIC STATUS AND PARENTS' INVOLVEMENT TOWARD STUDENTS' MATHEMATICS ACHIEVEMENT

Yong Mui Jun

This study aims to investigate the effect of parents' involvement and family socio-economic status towards students' mathematics achievement. The objective of the study is to investigate the difference in mathematics achievement among students from different level of family socio-economic status and to investigate the relationship between parents' involvement and student's mathematics achievement. 180 of Form Four students at SMK Batu Kawa were participated in this study. The data was collected through questionnaire. The finding of the study shows that family socio-economic status contributes effect toward students' mathematics achievement. Besides, parents' involvement was found have positive relationship with students' mathematics achievement. This study may imply that parents, teacher and school need to be aware with the factors of family socio-economic status and parents' involvement in order to improve students' achievement in mathematics.

ABSTRAK

KESAN TARAF SOSIO-EKONOMI KELUARGA DAN PENGLIBATAN IBU BAPA TERHADAP PENCAPAIAN MATEMATIK PELAJAR

Yong Mui Jun

Kajian ini bertujuan untuk menyelidik tentang kesan daripada penglibatan ibu bapa dan taraf sosio-ekonomi keluarga terhadap pencapaian matematik pelajar. Objektif kajian ini adalah mengkaji ketidaksamaan dalam pencapaian matematik di kalangan pelajar dari tahap taraf sosio-ekonomi keluarga yang berlainan serta mengkaji hubungan antara penglibatan ibu bapa terhadap pencapaian matematik pelajar. Seramai 180 orang pelajar telah terlibat dalam kajian ini. Data kajian ini dikumpul melalui borang soal selidik. Pendapatan kajian ini menunjukkan taraf sosio-ekonomi keluarga mempunyai kesan terhadap pencapaian pelajar dalam matematik. Selain itu, penglibatan ibu bapa didapati mempunyai hubungan yang positif terhadap pencapaian pelajar dalam matematik. Kajian ini boleh mengimplikasikan bahawa pihak ibu bapa, pihak sekolah serta guru haruslah sedar dengan kesan daripada penglibatan ibu bapa dan taraf sosio-ekonomi keluarga terhadap pencapaian pelajar dalam matematik agar pencapaian pelajar dalam matematik boleh dipertingkatkan.

CHAPTER 1

INTRODUCTION

1.0 Chapter Overview

This chapter presents the introduction of the study that investigates the factors that influence students' mathematics achievement in this study. The factors that are taken into consideration in this study are family socio-economic status and parent involvement. This chapter consists of the background of study, statement of problems, objective of study, conceptual framework, significance of the study, definition of the items and limitation of the study.

1.1 Background of Study

Students' academic achievement always becomes the major concern by the society. Mathematics is one of the subjects where each student is compulsory to take from primary to secondary school. It is an important subject due to it applicable for most of the working fields nowadays. Therefore, poor achievement in mathematics always worries today's parents. Definitely, there are many ways to improve students' academic performance including mathematics, but "focusing exclusively on academics is not necessarily the best way to improve students' academic achievement" (Sherblom, Marshall, & Sherblom, 2006). Coleman (1966) and Jencks (1972) stated that schools were not the major indicator of students'

academic performance especially when compared with influences of family background to students' academic outcome.

Numerous researchers found that, socio-economic status was one of the main factors that bring to the differences in students' academic achievement. (Thomas, Sammons, Mortimore, & Smees, 1997). Children with lower socio-economic status are found to have lower achievement and less success in school careers than children from higher socio-economic status family. (Coleman, 1966; Dronkers, 1986; Jencks e al., 1972; Marjoribanks, 2002).

Family socio-economic status is represented by family income, parents' education level and parents' occupation (Gottfried, 1985; Hauser, 1994). According to pervious research, parents' education which is related with family socio-economic status is influence students' achievement (Shavit & Blossfeld, 1993). Parents' education is significant in identifying students' success in academic (Klebanov, Brooks-Gunn, & Duncan, 1994; Haveman & Wolfe, 1995; Smith, Brooks-Gunn, & Klebanov, 1997). This is due to parents who attain higher education are confident in their ability to help their children to learn (Joan & Claire).

Beside, students from a low family income are less successful and are more likely to repeat a grade compared to those students who have high family income (Koppich, 2007). Previous studies did not directly show the effect of family socio-economic status towards mathematics, but mathematics is one of the important academic subjects, therefore the previous study which focus on whole academic achievement may be able to apply into this study. Thus, there is a need to look into the effect of family socio-economic towards mathematics achievement in Malaysia.

Involving parents in education able to improve school success have been widely recommended (Feuerstein, 2000; Jeynes, 2003). Gonzalez (2001) stated

that parents who involve in their children learning, their children will achieve better in all subjects such as Mathematics, English, Social Studies and Science. Epstein (1992) pointed out the fact that “students at all grade level do better academic work and have more positive school attitude, higher aspiration, and other positive behavior if they have parents who are aware, knowledgeable, encouraging and involve” (p.1141). Besides, Epstein (2005) demonstrated that parents who participate in their children learning during home are one of parents’ involvement activities that significantly correlate with improvement in achievement in mathematics subjects. Further more, parents help their children in their home work particularly advantageous in mathematics subject (Callahan et al., 1998).

1.2 Problem Statement

Mathematics is an important subject where all the students in Malaysia are required to study. It is undeniable that math is applicable in our real life and in workplace. Therefore the factors that influence students’ achievement in mathematics has become a familiar issue that had been investigated. Parental involvement and family socio-economic status often were the highlighted factors. However the finding about these two factors always varies due to the differences of respondent, places, family, background, as well as the educational system of a particular country.

Researches found that, industries countries were bear the effect of socio-economic status in academic achievement as well as the developing countries (Ishida, Muller, & Ridge, 1995). Halawah (2006) stated that family socio-economic status has an impact on student achievement. Family socio-economic status commonly measure by unite the family income, parents education level and parents occupation (Jeynes, 2002). Ferguson (1991) found that “income and family size were modestly related to achievement”. The income of a family will determine the chances of the children to have a complete education as well as the

chance of getting the material that promotes learning. Previous studies did not directly relate family socio-economic status and students' achievement in mathematics. Hence, it is crucial to find out whether family socio-economic statuses will effect students' achievement in mathematics.

School and parents carry the most significant influence towards students' academic development. The influence of parents' involvement toward students' achievement in mathematics had widely been assumed. Research found that the more intensively parent get involve into their children schooling, will bring more positive effect towards their children achievement. (Berlin and Cienkus 1989; Burke 1987; Raze 1985; Walberg 1992). Based on research of Barnard (2004) which stress on long-term influence of parent involvement had found that it not only reduce high school dropout rate but also improve students' achievement in high school.

Obviously, parents' involvements benefit various students outcome. However, Bemphechat and Omari (1990) found that most of the Southeast Asian parents are giving less attention to their children's academic. Besides, the empirical finding for the relationship between parent involvement and students' mathematic achievement are not consistent. Hence it is important to found out to what extend the relationship of parent involvement effecting students' mathematics achievement.

1.3 Research Objectives

1.3.1 General Objective

- i. To investigate the effect of parents' involvement and family socio-economic status toward students' mathematics achievement.

1.3.2 Specific Objectives

- i. To investigate the difference in mathematics achievement among students from different level of family socio-economic status.

- ii. To investigate the relationship between parents involvement and student's mathematics achievement.

1.4 Research Questions

- i. Is there a difference among students from different level of family socio-economic status in mathematics achievement?
- ii. Is there a significant difference between parents' education level and total family income towards students' mathematics achievement?
- iii. Is there a relationship between family socio-economic and parents' involvement?
- iv. Is there a relationship between parents' involvement and students' mathematics involvement?

1.5 Research Hypotheses

H₀₁: There is a difference in mathematics achievement among the students from different level of family socio-economic status.

H₀₂: There is a relationship between the parents' involvement and students' mathematics achievement.

1.6 Rationale of Study

The purpose of this study is to investigate the effect of parent involvement and family socio-economic status towards students' mathematics achievement.

The result from this study will be helpful for both educators and society to be aware of the effect of family socio-economic status and parent involvement towards students' mathematics achievement and therefore appropriate strategy can be taken. Besides, parents will have better understand the reason of their children cannot perform well is not only because of children themselves. Apart from that

school will have better insight and understanding in students' home condition progress hence provide the most conducive learning environment and support.

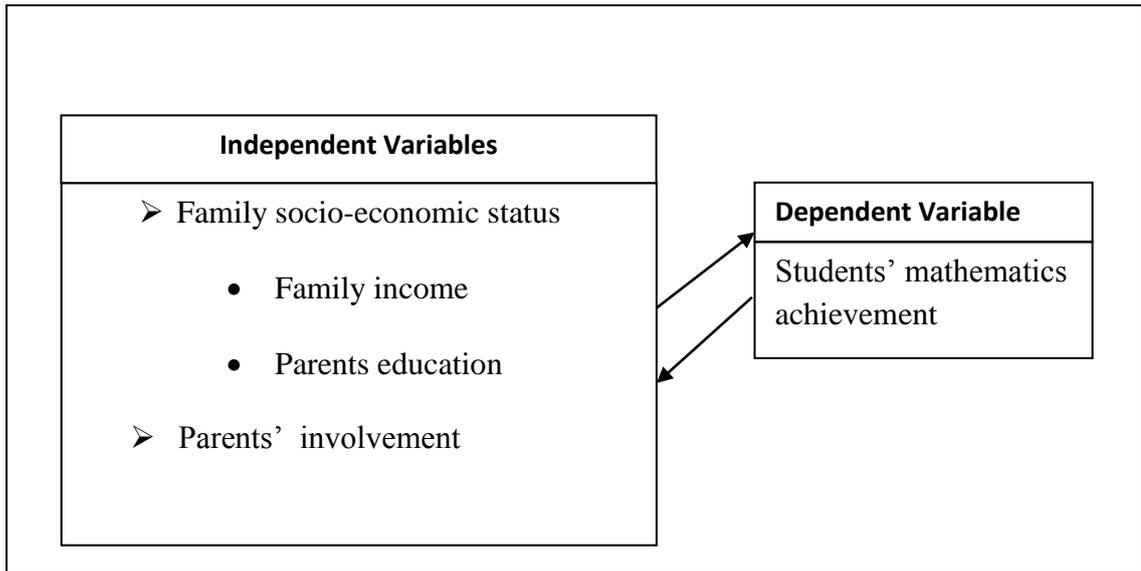
For those families with better socio-economic status, parents may provide their children with more additional learning materials and may send their children for tuition in order to improve their children academic performance, therefore, the economic status of a family are predicted to have significant effect in students' mathematics achievement.

As been stated, parental education attainment is one of the variables used to measure the family socio-economic status student's because the education level influence parents perception and their perception. Family with higher income were predicted to provide their children with better learning environment as well as learning aids that can foster and enhance their children learning, thus boost their children mathematics achievement.

Many studies have showed a positive relationship between parental involvement and students' academic achievement (Hong and Ho 2005, Dearing, Kreider, Simpkins & Weiss; 2006). Mathematics is one of the major academic subjects, while parents' involvement is largely unexploited resource therefore it is crucial to investigate the strength of the relationship between parents' involvement and students' achievement in mathematics.

Finally, hope that this study can be references for future researchers who are interested in investigate the students' academic achievement in future.

1.7 Conceptual Framework



From the conceptual framework, the independent variables of this study were parents' involvement and family socio-economic status. Family socio-economic status represented by family income and parents' education. The dependent variable of the study was students' mathematics achievement. This research was aim to investigate the effect of family socio-economic status and parents' involvement towards students' mathematics achievement.

1.8 Definition of Terms

1.8.1 Family Socio-economic Status

➤ Literature Definition

Family socio-economic status is represented by family income, parents' education level and parents' occupation (Gottfried, 1985; Hauser, 1994).

➤ Operational Definition

In this research, family socio-economic status refers to total family income per month and parents education level. The range of family income was from less than RM1000 to more than RM5000, while the

parents education level was from the range of never attend formal education to attain PHD level.

1.8.2 Parents' Involvement

➤ Literature Definition

Parents' involvement refers to the family obligation, parents' information network and family norm (Wenfan Y, Qiuyun L, 2005, p. 116). According to Epstein's formulation (2005), parents' involvement refer to providing positive home condition that foster learning, parent communicating school program with teacher or school administrator, parents' involvement in school, parents' involvement during home activities, parents' involvement in control or support, and collaboration with community resource.

➤ Operational Definition

Parents' involvement in this research refers to parents' involvement during at home such as monitoring their children homework, tutoring their children at home, controlling their children learning time and related resource providing. Besides, also include parents' supportive and helping about their children school work as well as the responsibility in participating in teacher-parent organization.

1.8.3 Students' Mathematics Achievement

In this research, students' mathematics achievement refers to student's mathematics grade attainment during their PMR. PMR refer to lower secondary assessment. All form 3 students are compulsory to take this assessment before entering form 4. There are six levels of grades namely A, B, C, D, E, and F. Grades A and B refer to good achievement, C and D refer to moderate achievement, finally D and F refer to poor achievement.

1.9 Scope of the Study

The study investigated on the effect of family socio-economic status and parents' involvement towards students' mathematics achievement. Like reading, Mathematics is a subject that essential for students' to function sufficiently in society and develop students' mathematical skill. It is a compulsory subject for all secondary students. By involving the students as respondents, it provides an insight for parents regarding the way that they can help in improving students' mathematics achievement.

There are many factors or variables which is effecting students' mathematics achievement but this study only focus on the variables of family socio-economic status and parents' involvement due to the compress time span. The propose of only investigating mentioned variables is due to the family socio-economic status of the school that intended to investigated is middle to low and parents is inactive in involving in their students learning. In addition, students' academic achievement in the school is generally lower.

1.10 Limitations of the Study

There were some limitations in this study, since this study was carried out in one of the school at Kuching, therefore the finding was unable to represent all the population in Kuching as well as in Malaysia context. Besides that, the dishonesty and uncooperative of some the respondents in providing the information are thee obstacles for the researcher to obtain accurate results.

Beside that, the variable that was used in measuring family socio-economic status and parent involvement in the study is not complete because only obtain variable that intended to investigate only.

On the other hand, the factor that influence the students' mathematics achievement might not be the only the factor that stated in the study. In other

words, there are still a lot of factor that will influence students' mathematics achievement.

1.11 Chapter Review

This chapter discussed the background of study, problems statements as well as objective and hypotheses for this study. Besides, the rationale of study, conceptual framework, definition of term used in this study, scope of the study and limitation of the study also discussed in this chapter. The next chapter will discuss the literature review of the study.

CHAPTER 2

LITERATURE REVIEW

2.0 Chapter Overview

This chapter will present the literature review that related with this study. It consists of two sections, which were parents' involvement towards students' mathematics achievement and family Socio-economic Status towards students' mathematics achievement.

2.1 Parents' Involvement towards Students' Mathematics Achievement

Numerous studies stated that parent involvement contribute a positive relationship towards students achievement (Gorger & Elliot, 1995; Griffin & Morrison, 1997). Jalongo (2003) point out that involvement or engagement of parents in their children education is an important factor that influences their achievement. In addition, from the three-year research done by Izzo et al. (1999), regarding 1,200 urban students also found out that parents' involvement either at home or school, both are positively related to students' academic performance. Furthermore, the

The primary role of parents is to nurture and educate their children. This has been recognized as a significant determinant in their education success and school improvement (Epstein, 1996; Safran, 1996). According to research, parents of any social class can contribute to their children's "post-secondary educational attainment by monitoring educational progress during high school" (Eagle, 1989). Further, the research done by Cotton and Wiklund shows that the more intensively parents get involved in their children's learning, the more beneficial the achievement effects. This holds true for all types of parent involvement in children's learning and for all types and ages of students. (Cotton & Wiklund, 2001)

There are many ways that parents can involve themselves in their children's education, such as monitoring their homework, tutoring their children at home, providing encouragement, helping their children improve their school work and attending the school function. According to Turner, Steward and Lapan (2004) study, through conducting studies on 318 sixth grade adolescents found that the student's with a support from both parents will have higher self-efficacy and thus affect their achievement. There were a lot of interpretations towards how parents involve in their children's learning. According to Epstein's (2005) formulation, parent involvement refers to providing positive home conditions that foster learning, parent communication with school program with teacher or school administrator, parent involvement in school, parent involvement during home activities, parent involvement in control or support, and collaboration with community resources.

The home condition was frequently considered to have a significant impact towards students' achievement. Research conducted by Fehemann, Keith, and Reimers (1987) found out that parents who set family rules and supervise their children at home such as controlling the time for watching television, playing and increasing learning time at home significantly improved their children's academic performance.

Study regarding reading and mathematics achievement on 8th grade students by Sui-Chu and Willms (1996) about the factor of home supervision and home discussion was found similar to Trivette and Anderson (1995) where home supervision did not have significant effect on achievement. However, home discussion was found significantly affect students reading and mathematics achievement. Students who active in spoke and discuss with their parents regarding school activities are found achieve better in reading and mathematics skill compare with the students who were passive in home discussion. Through the research by Griffin and Morrison (1997) on the kindergarten, show that the literacy of home environment that measure through the item such as available resources for learning at home, television viewing, frequency of library visiting and reading to adult themselves and their children did not show a significant amount of variance towards mathematics skill (as cited in Robyn, 2008).

Another longitudinal study that conducted by Sheldon and Epstein (2005) which focus on study of relationship between parent involvement activities and mathematics achievement had found that parent involvement in home learning activities was the only type of parent involvement that significantly affect students mathematics improvement. The two specific activities that been recognize able to improve students' mathematics achievement were available of mathematics resource and mathematic material at home that can be used and mathematics homework assignment that allow parents to discuss with and interact. Based on the research by Callahan et al. (1998) and Sheldon and Epstein (2005) suggest that parental assistance is benefit in students' achievement especially in mathematics.

The more active parents involve into, the more significant the effect of their involvement towards their children achievement. Research found that the higher rates of parents involvement in smaller schools units is frequently cited as a major positive influence on student achievement and attitudes (Berlin and Cienkus 1989; Burke 1987; Raze 1985; Walberg 1992). Bronfenbrenner (1979) had emphasized that students success was crucially identify by communication between parents and teacher (as cited in Robyn, 2008). He recommended that