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INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
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**A STUDY OF PARENTAL CHARACTERISTIC
FACTORS THAT INFLUENCE PARENTS' ATTITUDE
TOWARD COMPUTER TECHNOLOGY AND
PARENTAL INVOLVEMENT IN THEIR CHILDREN'S
COMPUTER EDUCATION**

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**A PROJECT PAPER SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENT FOR THE
DEGREE OF MASTER OF MANAGEMENT**

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ABSTRACT

The purpose of this study is to measure the influence of parental characteristics on parents' attitude toward computer technology and parental involvement in their children's education using the structural model. The parental characteristics included in the model were: gender, age, education, computer usage, computer experience, computer training, computer self-efficacy, computer ownership, race, income, and occupation. Path analysis is used to test the structural model proposed in this study.

Data for the study were obtained through questionnaires completed by parents in Klang Valley area. The data collected were analyzed using the Statistical Package for the Social Sciences (SPSS).

The findings indicated that attitude toward computer technology, occupation, income, computer ownership, computer self-efficacy, and computer experience have significant direct effects on parental involvement in their children's computer education. However, based on results from path analysis method, computer self-efficacy and computer experience have significant indirect effect on parental involvement in their children's computer education. The results indicated that these factors influenced parents' involvement in their children's computer education through the former's attitude toward computer technology.


APPROVAL PAGE

TITLE OF PROJECT PAPER: A STUDY OF PARENTAL CHARACTERISTIC FACTORS THAT INFLUENCE PARENT'S ATTITUDES TOWARD COMPUTER TECHNOLOGY AND PARENTAL INVOLVEMENT IN THEIR CHILDREN'S COMPUTER EDUCATION.

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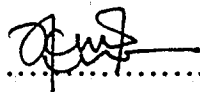


Associate Professor Dr. Syed Abdul Hamid Al-Junid
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DECLARATION

I hereby declare that this thesis is the result of my own investigations, except where otherwise stated. Other sources are acknowledged by reference notes and a bibliography is appended.

Date: 28.02.98

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ACKNOWLEDGEMENTS

I would like to express my sincere appreciation to my supervisor, Br. Abdul Aziz Mohamad for his assistance and guidance in the completion of this paper.

I am especially grateful to Dr. Ahmad Zohdi Abdul Hamid for his support, patience and help throughout this programme. I am also indebted to all the lecturers involved in this programme for giving me invaluable wisdom to the completion of this paper.

I owe a debt of thanks to all my friends especially Razak, Jamaluddin, Rosmini and Siti Zaiton for their invaluable helps and supports. I am also very grateful to all parents who participated in this study.

Finally, I owe most to my family. I much appreciate for their tolerance and support especially my husband and my daughter.

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CHAPTER 1

INTRODUCTION

Parental involvement in children's education has been the main focus in developed countries such as The United States of America and Britain. Many schools all over these nations have begun implementing their own parental involvement programs, supported by active national organizations, and new local, state and federal policies (Fruchter *et al.* 1992). Indeed, several studies have provided evidence that parental involvement has significant relationship with students' academic progress and achievement (Linney and Vernberg, 1983; Widlake and Macleod 1984; Hieshima & Schneider, 1994).

There are also other important benefits of parental involvement in the schools. Rich and Sattes (1985) found that parents' involvement in education helped produce increase in students' attendance, decrease in dropout rate, positive parent-child communication, improvement of students' attitudes and behavior, and more parent-community support of the school. Swap (1987) suggested that collaboration broadened both parents' and educators' perspectives and brought additional resources to both groups. Nardine (1990) cited specific examples of mutually reinforcing effects that parents and children have on each other's educational outcomes, and suggested that involving low-income minority parents in the educational process was an asset.

Despite proven importance, parental involvement in their children's education has not been extensively researched in Malaysia. The contact between parents and schools is kept to the very minimum such as parental attendance to a Parent-Teacher Association (PTA), and sports day events. Hannon (1995) suggested the exclusion of parents from teaching their children as the result of industrial and urban development. Most schools are located far away from homes, and the relationship between parents and schools becomes more impersonal. Children are educated in formal institutions with new curriculum and system. Most of the parents are poorly equipped to educate their children due to lack of academic experience. Furthermore, they have less time to spend with their children as a result of long hours of work. They resist to be involved due to economic needs and ignorance rather than from reluctance to get involved.

Furthermore, he added teachers have undergone a lot of pressure. They have to teach too many children with limited space and with limited time to cover everything that they are asked to do. They face vast difficulties working with more than thirty children. To work with parents seems to add another burden on their shoulder. Therefore, teachers tend to avoid any parental involvement.

A turning point for the involvement of parents in Malaysia is the implementation of smart schools. Smart schools, one of the flagship applications in the Multimedia Super Corridor (MSC), are designed to produce innovative, analytical citizens to propel the country to a developed nation status with the industry and information technology as the backbone of the economy (*Sunday Star*, August

10, 1997). Learning will be self-directed, individually-paced, continuous and reflective. By the year 2010, all Malaysian schools, approximated to be ten thousand in number, will be 'smart schools'. One of the main objectives of the smart school program is to increase participation of stakeholders such as parents, community and businesses through partnership. High levels of parents and community involvement and support are expected in smart schools such as participation in classroom lectures by sharing their knowledge through the Internet.

To facilitate more parental involvement in the smart school system, current attitudes of parents toward computer technology and its relation to their involvement in their children's computer literacy should be looked into as multimedia technology and worldwide computer networking (The Internet) will soon be employed extensively. To be involved in smart schools systems, parents should be at least aware of the importance if not being well equipped in computer technology.

In light of significant parental involvement in children's achievement, the major purpose of this study was to explore attitudes of parents toward computer technology and the willingness of parents to be involved in their children's computer education as part of their preparation for the smart school system. This information will be essential in developing future plans and programming efforts to achieve our objectives.

1.1 RATIONALE

School is the primary venue for educating our children. Imparting literacy to the next generation has historically been seen as the task of schools. The academic curriculum designed by governments and policymakers is aimed to help children acquire knowledge and develop skills. Often, the curriculum, developed based on the education philosophy, is a detailed written document. The philosophy of the curriculum development is that there exists a common core knowledge and that the facts, concepts, and skills of that core can be written down, turned into objectives, and then developed with children being the recipient. In school, children learn from teachers who are trained professionals on basic literacy, computational, scientific and interactive skills.

Nonetheless, children's learning and development do not take place only in schools. Much of what children learn actually come from their personal experiences, associations and interactions outside and beyond scheduled school activities. Even in schools, a significant amount of learning occurs through children's associations and interactions during classroom activities.

Parental attitudes, interest and involvement serve as models for children's interest and involvement in their learning in schools. Coleman (1991) pointed out that children whose parents stress the importance of good work habits, punctuality and task completion carry these traits over into their schoolwork and have greater

academic successes. Durkin's study (1966) also indicated that parental attitudes and model on reading are contributing factors in later achievement of young children's reading. Adams (1990) concluded that children respond more positively to books when they engage in a greater amount of literacy interactions with adults and it is especially true when adults believe in the importance of these interactions.

In addition, most parents would like their children to walk in their footsteps. Almost all parents have experiences or skills gained from their work and surroundings. Naturally, most parents share the experiences and impart the skills they have acquired to their children. Parents can easily transfer these skills to children through demonstration. They are also willing to put in a great deal of time and financial investment to ensure their children acquire the skills.

Therefore, this study attempts to determine the relationship between parental attitudes toward computer technology and their involvement in children's computer education. The result of this study is intended to foster and stimulate further research.

1.2 PURPOSE OF THE STUDY

Parents, students and schools could benefit prodigiously from effective approaches to parental involvement in school. Homes and schools strongly influence development of children. In advocating the concept of 'mutual support' which is defined as parent and educator working together, Scott-Jones (1988) suggested that

educational systems be restructured to allow for maximum parental participation in school program.

The Elton Report (1989) also suggested on parental involvement as a mechanism for improving relationship between home and school, with potential benefits for children, and as a means of dealing with disruption in school. In championing the virtues of parents' involvement in schools, many researchers have neglected the basic question of how parents' characteristics affect parental involvement. To further clarify the needs of real understanding of underlying principles in parental involvement, this study focuses on investigating prominent parental characteristic factors that influence parental involvement in their children's computer education.

It is anticipated that the findings will provide information and insights to assist those who are involved in developing parent-school partnership in the smart school system. These will be of value to those who want to examine home-school relations in depth and to develop strategies for achieving goals they have set. It is expected this study will lead to developing and maintaining effective relationships with parents beyond the formal minimum.

1.3 OBJECTIVES OF THE STUDY

The primary purpose of this study is to identify important factors related to parental involvement on children's computer education. Specifically, the study

attempts to measure parents' attitude toward computer technology and its impact on parental involvement in their children's computer education.

The study also investigates whether parental characteristics including gender, race, education, occupation, income, computer ownership, computer usage, computer training, computer experience and computer self-efficacy have significant influence on attitude toward computer technology and parental involvement in their children's computer education.

The structural model (Figure 2.1) is also used to describe the relationship between parental characteristics, parental attitudes toward computer technology, and parental involvement in their children's computer education. The path analysis is performed to clarify whether parental characteristic factors affect parental involvement through parents' attitudes toward computer technology.

1.4 OVERVIEW OF THE PAPER

This paper begins with a brief description of current efforts in developing parental involvement in schools. The importance of parental involvement in school supported by previous research is also highlighted. This chapter also presents the

significance of this study in developing future plans and programs for parental involvement in Malaysian smart schools.

Chapter 2 provides a broad definition of parental involvement in school, that includes both parents' roles and activities . Further, this chapter illustrates the importance of parental involvement in their children's education, specifically computer education. The determinants of parental involvement are also discussed. In addition, this chapter also presents the concept of attitude and its determinants.

Chapter 3 discusses the procedures and instruments used in this study. The method used for data analysis is also described in detail. This chapter also presents the limitations of this study.

A detail evaluation of the data is discussed in Chapter 4. This chapter also describes the findings of the study.

Research findings are extensively discussed in Chapter 5. Considerations of possible ways toward the development of contact between parents and schools are also concluded in this chapter.

CHAPTER 2

REVIEW OF LITERATURE

The review of literature begins with the concept of parental involvement in schools. This chapter also highlights the importance of parental involvement in their children's education, specifically in computer education. Based on previous research, it discusses several parental characteristic factors that have significant effects on parental involvement. The concept of attitude is also discussed. Several parental characteristic factors that can influence attitude toward computer technology are identified and discussed in detail.

2.1 THE PARENTAL INVOLVEMENT CONCEPT

'Parent' refers to 'a father or mother or guardian; protector' (The American Heritage Dictionary). A parent can be a person or persons who has/have care, custody and control over and concern for a child that includes any combination of caretakers such as two parents, single parent, adoptive parent, step parent, foster parent, and so on (Wolfendale, 1983).

Involvement can be defined as 'getting people in' to the institution. Parental involvement means seeing parents as active collaborators in their children's learning and development, and ensuring that they are well-informed about their children's school life and clear about ways in which they can work with the school (Jowett and Baginsky, 1991).

Normally in school, parents may attend or support school events such as parent-teacher association meetings, sport events or student performances (Laureau, 1989). They may also exchange information with teachers about their children's problems and progress in person, by note, or by telephone (Chavkin, 1993).

At home, parental involvement may take several forms including preparing children for school such as teaching children the alphabet, talking with, and reading to children to promote language development. Furthermore, they may be responsible of ensuring their children's sufficient sleep, punctual attendance, and attention to homework (Epstein, 1987). Other obligations include providing a place to do homework and ensuring the completion of homework (Epstein, 1987; Epstein and Becker, 1982; Hoover-Dempsey *et al.*, 1987; and Van Galen, 1987).

In a broad term, parental involvement may take a variety of roles and activities. Parents may serve as supporters by involving themselves in fund-raising, publicity generation, and helping outside the school. Parents can participate through actual help given in sessions inside the school (Van der Eyken, 1983). Parents can participate as teachers' aid and volunteer in classroom activities such as preparing materials, reading stories and working with children (Gordon, 1969).

2.2 PARENTAL INVOLVEMENT AND COMPUTER EDUCATION

'Home is the first classroom. Parents are the first and most essential teachers'

(Boyer, 1991 : 33).

The above statement implies the vital role of parents in their children's education and development and this has been proven through studies. Therefore, in an effort of establishing smart schools, parents might become a powerful influence in increasing computer literacy and raising the standards of children's computer education.

Parents could provide a wide range of activities to encourage their children's computer education development. They could encourage and expose their children to computer learning. Computer savvy parents may be able to make major contribution to their children's education by providing a computer-rich home environment, modeling effective use of the facilities, and instructing children in their use. This can start well before children go to schools.

Rocheleau (1995) reported that parents create a higher probability of their children being heavier computer users by purchasing computers and by communicating their desire for their children to use computers. The impact of parental involvement on children's computer education has been widely researched.

Partners in Learning Project in La Cruces illustrated the success of parental involvement in enhancing their children's computer education (Fullerton, 1995). The project began in La Cruces, New Mexico, in 1989. The project extended the learning environment into homes and enabled parents to contribute to their children's success in school. 'Take Home Computer Program' was launched with printed materials and enrichment activities for use by parents and their children together, at home. Two hundred computers were distributed to families on a continuous 10-week rotational cycle. The necessary training for parents was provided. As a result, not only the test scores of the students improved, but also trust was developed between home and school.

2.3 DETERMINANTS OF PARENTAL INVOLVEMENT

Previous research have identified parental background variables namely gender, race, education level, occupation and income as major predictors of the level of parental involvement in their children's education. James Comer (1986) reported that many parents were reluctant to become involved in schools because of racial, income, and education differences. They often feel unwelcomed due to lack of knowledge about school protocol and negative past experiences with schools.

2.3.1 Gender

Maternal and paternal parenting might influence the level of parental involvement. Mothers are viewed as more involved as they are increasingly held

responsible for their children's intellectual growth (Arnot, 1984). Lareau (1989) provides evidence that mothers' educational obligations are significant part of their child-rearing responsibilities. Fathers still express interest in the process and often have considerable authority, but they are not generally involved in the daily routines of their children's lives.

However, in modern homes under economic pressures, there is changing character of family duties. The duties are no longer clearly defined. Some fathers nowadays, albeit small in percentage, have major responsibilities for meal preparation and cleaning in addition to child monitoring. Therefore, today, gender role becomes more ambiguous. This study states,

Hypothesis 1: There is no significant difference between gender in parental involvement in their children's education.

2.3.2 Race

Malaysia has diversified racial groups which include Malays, Chinese, Indians and others. These groups are distinguished through physical characteristics, language, and cultural factors. These factors may create racial barriers to parental involvement. The variations of educational orientations, expectations and learning styles within all families have encouraged different learning strategies (Webb *et al.*, 1996). Therefore, schools should recognize different learning styles and understand the need to employ different strategies to accommodate different parents. Through this process, parental involvement would be more prominent. Therefore, the study states,

Hypothesis 2: There will be no significant difference in race in relation to parental involvement in their children's computer education.

2.3.3 Education

Parents with less than high school education level were most likely to have lower levels of contacts compared to parents with a college degree or better education (Harris *et al.*, 1987). With the higher level of education, parents believe that they are capable of being school teachers themselves. This belief provides parents with confidence, as well as competence to be involved in educational agenda or activities.

In contrast, parents who are high school graduates or dropouts felt their lack of social standing and educational training in their visits with teachers (Sennett and Cobb, 1972). They believe that professional expertise in educating their children belongs to teachers (Hughes, 1963). They lack the confidence or competence either to criticize the actions of teachers or to generate ideas in improving school activities. In short, they tend to be less involved in their children's education.

The higher educational level provides parents with more resources. However, sometimes they did not use the resources that they had to foster their involvement in their children's education. Other literature provides evidence that despite lower education, social standing and informational resources, parents can overcome their