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CHILDREN'S BEHAVIORAL AND LEARNING SELF-REGULATION IN TRANSITION PERIOD: A STUDY OF FIRST GRADE STUDENTS IN TAIWAN

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ABSTRACT

This study sought to increase teachers' and parents' attention to the importance of children's self-regulation behavior and identify effects on and potential changes to this behavior. Issues relating to children's self-regulation behavior have become serious concerns in recent years in Taiwan. The effects of head teachers' and parents' interactive attitudes toward and involvement in children's self-regulation behavior received particular emphasis. Study findings should provide further understanding of the factors that influence children's self-regulation behavior both at school and home.

Participants included 50 head teachers and 481 parents, randomly selected from 2 first-grade classes per elementary school, from 6 elementary schools per district, in 4 different school districts in Taipei City, Taiwan. Participants filled out surveys, which was the main data collection method for this study.

Five research questions guided this study. The methods used to analyze the data in order to answer the research questions were: descriptive statistics, curve estimation, linear regression, bivariate correlation, one-way ANOVA, and independent samples t-test. Results showed that the parent, as the child's caregiver, was the only factor to correlate with children's self-regulation behavior; children's self-regulation behavior was most correlated by average time spent daily on homework assignments; there was a significant difference between children's gender and their general, learning, and overall self-regulation behavior; children tended to exhibit self-regulation

behavior more frequently at school than at home; the frequency of head teachers' contact with children's parents, especially oral contact, was through reports about children's school work and behavior related to children's overall self-regulation behavior at school; head teachers' involvement with students, which included taking extra time to help children with their courses, monitoring children's behavior, spending a lot of time with children, giving encouragement or prizes to children, and reminding children about certain tasks such as completing homework, had significant effects on children's overall self-regulation behavior at school; and parents' interactions with head teachers and frequency of attendance of school activities affected children's overall self-regulation at home. With regard to parents' involvement in children's behavior, making time to help children with homework or courses, monitoring children's behavior, communicating with children face-to-face, spending lots of time with children, giving encouragement or prizes to children, and reminding children about certain tasks such as completing homework, all affected children's overall self-regulation behavior at home; in addition, according to responses from both head teachers and parents, monitoring children's behavior, spending lots of time with children, giving encouragement or prizes to children, and reminding children about certain tasks such as completing homework had the greatest effects on children's overall self-regulation behavior at home.

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Chapter 1

INTRODUCTION

The purpose of this research study was to gain an understanding of the factors that influence children's self-regulation behavior at school and at home, and attention was also paid to the effects of head teachers' and parents' interacted attitudes and involvements toward children's self-regulation behavior. This chapter provides an introduction to this research study. It is divided into the following sections: (1) statement of the problem, (2) need for the study, (3) purposes of the study, (4) research questions, (5) delimitations of the study, (6) limitations of the study, and (7) definition of terms in the study.

Statement of the Problem

In Taiwan, due to economic challenges that led to a Depression, people began to have fewer children. According to the Department of Budget, Accounting and Statistics of Taipei City Government (2007), the overall crude birth rate in Taiwan has decreased every year since 2001. For Taipei City, the crude birth rate was 12.74‰ in 2000 and 10.23‰ in 2001. In 2007, the crude birth rate was 8.22‰. Since there are fewer children per household, parents have more time and vigor to focus on their children. In addition, Taiwanese parents believe that they should not "lose at the starting point", which means that children should begin to learn as early as possible, so that later on they will perform

better than others. Thus, parents pay lots of attention to the transition from kindergarten to first grade since this is the first education stage for children, and contains big differences in various areas (e.g., new environment, courses, and rules). During this transition, parents and kindergarten teachers begin preparations so that children are able to enter first grade without any difficulties. Based on information from the Taipei County Kindergarten Education Network (http://info1.tpc.gov.tw/kid/), during the transition, parents begin preparations, such as reminding children to have a good lifestyle, initiating the habit of finishing work alone, having good manners towards others, etc. As for kindergarten teachers, they begin to help children form habits such as coming to school on time, communicating using manners, having good hygiene, arranging and organizing things, finishing work assigned by teachers, and working with other children (TCKEN, 2006). Therefore, most areas on which parents and teachers focus related to self-regulation behavior.

The problem with children's self-regulation behavior has become a serious one in recent years. In 2000, the Ministry of Education (MOE) started stated that punishment in the school should be abolished; the "no punishment allowed in the school" law passed in December 2006. Based on the MOE (2007), "punishment" includes physical punishments (e.g., beating, slapping), mental punishments (e.g., insults, humiliation, threats), and other punishments (e.g., push-ups, run tracks, squat jumps). Thus, teachers in Taiwan have been frustrated and confused about "suitable discipline". On June 24, 2008, Chinese Television System (CTS) news reported that a group of 7th-grade students brought vodka to school to drink and were caught by their head teacher. This head teacher punished them by making them stand in the sun during breaks. The students protested and

complained about getting sunburns. However, the public only focuses on the part that teacher gave punishment and students got sunburn, but not the reason why these students got punished (Shieh, 2008). Since teachers' punishments are often misunderstood by the public and students are not willing to follow the rules, self-regulation is the better way to handle these issues (Hong, 2005). "Self-regulation begins with life itself. All living things have self-regulating and self-organizing mechanisms that guide their development and adaptation" (Bronson, 2000, p. 1).

Need for the Study

According to the problem statement and the *Five-Year-Educational-Plan* for Taiwan, Republic of China, this study was conducted for five reasons. First, most studies relating to children's self-regulation behavior focus on strategies for children's self-regulated learning (Wei, 2007). Moreover, children in higher elementary school grades, or disadvantaged or talented children often are the populations being studied. Second, since there are fewer children per household, parents have more time to spend with their children and are able to pay more attention to children's self-regulation behavior. Third, due to "no punishment allowed in the school", focusing on children's self-regulation in the early developmental stages may be a better way to solve teachers' frustration with guiding and educating children. Fourth, one of the Curriculum Goals is to make self-regulation a core competency in the Grade 1–9 Curriculum, which is the reformed curriculum followed in compulsory education that was put into practice by the Ministry of Education more than 10 years. Finally, one of the Ministry of Education's goals is to examine both teachers' and parents' views of their children. This is important, because

knowledge of the changes in the ways in which teachers and parents guide and educate children in the 21st century will have a vital impact on their lives.

In sum, based on study needs, findings from this research may have value because:

1. They may give teachers and parents a better idea of what affects children's self-regulation behavior and what can be changed (e.g., parents' view of the importance of self-regulation, guiding and educating) to enhance children's self-regulation behavior.
2. They may benefit teachers and parents by leading them to pay more attention to children's characteristics at school and at home.
3. The study and its results can increase teachers and parents' attention to the importance of self-regulation, since first grade is an early developmental stage in children's self-regulation behavior.

Purposes of the Study

The purpose of this research study was to gain an understanding of the factors that influence children's self-regulation behavior at school and at home, and attention was also paid to the effects of head teachers' and parents' interacted attitudes and involvements toward children's self-regulation behavior. The related goals in which the researcher is interested are to : (1) determine whether children's self-regulation behavior is affected by parents' personal background and the children's own background, (2) examine whether children's gender differences affect their self-regulation behavior, (3) examine whether children's self-regulation behavior differs when placed in different settings, and (4) determine how children's self-regulation behavior is affected by

teachers' and parents' interactions with each other and their involvement in children's lives.

Research Questions

To accomplish the purpose of the study and related goals, five research questions were addressed in this study:

1. How is children's overall self-regulation behavior at home influenced by parents': (a) gender, (b) age, (c) educational level, (d) primary occupation, (e) monthly household income, and (f) child's caregiver?
2. How is children's overall self-regulation behavior influenced by other factors when examined by: (a) number of siblings, (b) birth order, (c) months attended school before going to first grade, (d) types of school attended before going to first grade, and (e) average time spent daily on homework assignments?
3. Is there a significant difference between children's (general, learning, and overall) self-regulation behavior and their gender?
4. Is there a significant difference between children's (general, learning, and overall) self-regulation behavior in school setting and home setting?
5. (a) How is children's overall self-regulation behavior at school related to both head teachers' interactions with parents and their involvements in children's behavior? (b) How is children's overall self-regulation behavior at home related to both parents' interactions with head teachers and their involvements in children's behavior?

Delimitations of the Study

This research study was delimitated by the following four factors:

1. The data were collected in November and December 2008 from 24 municipal elementary schools in four districts (Neihu, Shilin, Wenshan, and Xinyi) of Taipei City, Taiwan.
2. In this study, the researcher only focused on children who attended municipal elementary schools, which means that the study excluded children from national and private elementary schools.
3. The researcher focused on first-grade children's self-regulation behavior at school and at home, and in a more general way.
4. The questionnaires were filled out by head teachers and parents, who are also observers and involved in children's lives.

Limitations of the Study

The three factors that limit the results from this research study are as follows:

1. This study was limited to the four districts (Neihu, Shilin, Wenshan, and Xinyi) of Taipei City, Taiwan. Therefore, the analyzed results may not represent other parts of Taiwan or other countries around the world.
2. The study only focused on children in the first grade, although the questionnaires were filled out by head teachers and parents. In addition, the study also excluded children from national and private elementary schools. Thus, the results cannot be generalized to all students in Taiwan.

3. Children's self-regulation behavior at school and at home was studied in a more general way, and questionnaires were used as the only instruments in this study. This may not cover all phenomena in children's self-regulation behavior at school and at home, nor capture head teachers' and parents' perceptions thoroughly.

Definition of Terms in the Study

The following terms are frequently used in specific ways in this study. The terms and their definitions are listed below in alphabetical order.

Children (Students)

The children in this study are considered to be first-grade students in municipal elementary schools. They must be at least 6 years old on September 1, 2008 (Department of Education of Taipei City Government, 2007).

Self-Regulation

Self-regulation is the mode which supports the task of maintaining one's actions in line with one's integrated self (Heckhausen & Dweck, 1998). However, theorists in the behavioral tradition consider "self-regulation" and "self-control" to have the same meaning (Bronson, 2000).

Transition

Transition is a change or movement from one environment to another environment, and usually indicates changes between places, teachers, curricula, and notions (Margetts, 1999). In the study, this transition was from kindergarten to first grade.

National Elementary School

This is another kind of public elementary school, in which applicants whose parents are university faculty and staff first are considered first (with no consideration of district). Then, if spaces are available, the school accepts children whose parents are non-university faculty and staff (consideration of district is needed) (DOE, 2007).

Municipal Elementary Schools

This is one kind of public elementary school. As long as the family lives in the same district as the location of the municipal elementary school, parents may send their children to those schools (DOE, 2007).

Head Teacher

In Taiwan, the head teacher is a teacher who interacts with the class most often and knows each student the best. The similar term for head teacher in America is “home room teacher”, but the head teacher in Taiwan is most likely teaching one certain course, not other subjects. In addition, the head teacher may sit at the back of the classroom to observe students’ behavior when other subject teachers come into the classroom to give lectures. Furthermore, the head teacher often interacts with students’ parents.

Parents

In this study, a parent is a father, a mother, or a guardian who has a child attended first grade in a municipal elementary school in fall 2008, in Taipei City, Taiwan.

Serial Number

Each questionnaire was assigned a number—for both head teachers' and parents' versions. There were five numbers in each serial number. The first number indicated the district; the following two indicated the school in the district; and the last two indicated which child was being evaluated. This system was used to match questionnaires from head teachers and parents for each child.

Identification (ID) Number

In Taiwan, every student has an identification number that represents him- or herself. The identification number only contains 1 to 2 digits. For example, if the class size is 30, then the ID number is from 1 to 30. In addition, the numbers are assigned to male students first, then female students—in other words, if the class has 15 male and 15 females, male students will have numbers from 1 to 15, and numbers 16 to 30 are assigned to female students. This identification number will be the same throughout the fall and spring semesters.

Interaction

Communication, negotiation, cooperation and conflicts are viewed as parts of interactions, and include valid and invalid, active and passive movements (Lu, 2003). In this study, interactions among head teachers, parents, and children were studied.

Involvement

Parents followed several methods for participating in activities relating to children's learning, such as supervising children while doing homework, communicating and interacting with teachers, and assisting with teaching activities—all to help children grow and learn happily and steadily (Chang, 2007).

Learning Behavior

Generally speaking, learning behavior is behavior that relates to learning. Learning is a system of progressive steps that make an individual who he or she is, and exert lasting changes on behavior or knowledge through experience or practice (Cheng, 2007). Learning behavior is the product of learning, which includes learning attitude and representation of learning competence.

Chapter 2

LITERATURE REVIEW

This chapter presents a literature review on self-regulation, and on gaining a better understanding of parents and teachers' attitudes toward education and involvement in the transition from kindergarten to first grade. The literature review is provided in five main sections: (1) understanding of self-regulation, (2) understanding the transition from kindergarten to first grade, (3) differences and similarities in kindergarten and elementary school environments, (4) parents' and teachers' attitudes towards education, and (5) parents' roles and parents' involvement.

Understanding of Self-Regulation

"Self-regulation begins with life itself. All living things have self-regulating and self-organizing mechanisms that guide their development and adaptation" (Bronson, 2000, p. 1). When children start to learn, self-regulation very much influences their academic performance and social competence. The reason why parents and teachers pay so much attention to self-regulation is that it is part of the "invisible curriculum" in the classroom (Reid & Lienemann, 2006). Parents and teachers have been searching for strategies to increase children's self-regulating abilities in many ways. This section of the literature review is separated into three sections: (1) concept of self-regulation, (2) development of self-regulation, and (3) strategies of self-regulation.

Concept of Self-Regulation

Self-regulation can be defined in various ways. Theorists in the behavioral tradition consider "self-regulation" to be the same as "self-control" (Bronson, 2000), and many use these two terms interchangeably. Teachers and parents are most likely to view self-regulation as the control of external behaviors (Bronson, 2000). Based on the theory of volition, according to Heckhausen and Dweck (1998), self-regulation is the mode which supports the task of maintaining one's actions in line with one's integrated self". Self-regulation may be defined in various ways based on different psychological theories. Although this study is primary based on behavioral perspectives, according to Bronson (2000), there are eight theoretical perspectives of self-regulation. These perspectives are based on psychoanalytic, behavioral, social learning, social cognitive, Vygotskian, Piagetian, Neo-Piagetan, and informational processing theories. Table 2.1 shows the sources and causes of the development of self-regulation according to each theory.

Table 2.1
Sources of Self-Regulation and Causes of Development According to Different Psychological Theories: A Brief Overview

Theory	Source(s) of Self-regulation	Cause(s) of Development of Self-regulation
Behavioral	Learned contingencies of reinforcement; learned ability to wait for delayed reinforcement; learned self-instruction strategies	Training in: - experiencing delayed reinforcement - giving self-reinforcement for delayed reinforcement - giving self-instructions - giving self-reinforcement for trying and for success
Social learning	Internalized performance standards (internalized representations of what constitutes competent or effective behavior); Self-evaluation—leading to self-reward (feelings of self-efficacy) if standards are met or self-punishment (feelings of self-contempt) if standards are not met	Learning performance standards from: - own performances and outcomes (reinforcement or punishment) of these - observing others and the outcomes of their behaviors Experiencing and observing reinforcement for self-regulated behaviors (leading to self-efficacy evaluation for self-regulation)
Psycho-analytic	Ego deals with conflicting inner forces (id and superego), copes with the Environment, and seeks "competence/efficacy"	Growth of ego strength from successful interactions with the environment and the accompanying growth of self-esteem and self-confidence
Social cognitive	Perceived ability to control events in the environment	Experiences of control; Attribution of control to own actions and competence
Vygotskian	Innate curiosity and interest in independence	Private speech (internalized language that guides action and thought)

(*table continues*)

Table 2.1 (*continued*)
Sources of Self-Regulation and Causes of Development According to Different Psychological Theories: A Brief Overview

Theory	Source(s) of Self-regulation	Cause(s) of Development of Self-regulation
Piagetian	Equilibration—cognitive; To restore mental balance by resolving mental conflict or disequilibrium; Interest in exploring and creating interesting effects in the environment	Cognitive development—increasing cognitive understanding of the physical and social environment, and development of logical thinking (thinking and interactions with people and objects in the environment)
Neo-Piagetan	Innate interest in problem solving Domain-specific increases in control	Development of increased information-processing capacities that support independent problem solving and control Domain-specific increases in self-regulatory skill
Information processing	Innate interest in problem solving and control	Development of "executive" functions, including rules, plans, and strategies that support independent thought and action.

Behavioral theorists believe that self-regulation is the same as "self-control". According to Carver and Scheier (1999), the definition of self-control is a system that has the ability to control its own dynamics. Bronson (2000) stated that the development of self-regulation gives children the opportunity to learn how to assess the value of rewards, choose appropriate goals, give themselves instructions or follow instructions that are provided, monitor their own activities, and reward themselves for the behaviors that are rewarded in the environment. There are four basic components of self-regulation in behavioral theory: self-monitoring, self instructions, self-reinforcement, and goal setting (Bronson, 2000; Schunk, 2004).

Adapted from Bronson (2000), social learning theory has many behavioral elements. Early social-learning theory combined Freud's insights and behavioral learning theories. Later, Bandura (1977, 1997) redefined this theory's approach as "proposing that learning through observation occurs without the need for performance or reinforcement and by emphasizing the importance of cognition in observational learning" (Bandura, quoted in Bronson, 2000, p. 16). Based on Bandura's point-of-view, self-regulation is the result of performance standards that guide behavior, and self-regulation includes self-reinforcement or punishment based on whether the standards are met successfully.

Development of Self-Regulation

According to Carver and Scheier (1999), the ability to engage a behavior to reduce discrepancies between the current and desired performance is an important element in self-regulation. Reducing performance discrepancies relates to children's social and developmental changes. Younger children in early elementary school have unstable conceptions of their abilities—they lack the capacity for delayed gratification, and they lack awareness of incompetence cues from others' feedback, leading them to have less accurate information about whether they have met their standards successfully.

Around 3–5 years of age, the development of self-regulation centers around self-control, which is based on awareness and self-initiated notification of action. During these ages, although children can follow requests and commands, they still cannot delay their gratification, which blocks some self-regulation skills (Boekaerts, Pintrich, & Zeidner, 1999). For children aged 6 to 8, the development of self-regulation is based on inner speech and other means of attention, motivation, and stimulus control. Overall, in

kindergarten and first grade, children understand that other people have different attitudes about different types of responses (Heckhausen & Dweck, 1998), which motivates them to learn many types of responses so others have positive responses to them. For example, children may observe how their mother reacts to their siblings' responses, and see which response their mother prefers. Heckhausen and Dweck (1998) pointed out that this kind of thinking reveals self-evaluation in the service of self-regulation.

Additionally, Carver and Scheier (1999) found that changes in children's environments have a big impact on developmental changes in children's self-regulation. Three consequences result from a school transition and can affect the development of children's self-regulation. First, it may be quite difficult for children to meet performance standards as the curriculum gets harder and as teachers are stricter in giving high grades (Eccles & Midgley, 1989; Eccles et al., 1993; Simmons & Blyth, 1987). Second, new criteria may be introduced and children may be unfamiliar and uncertain about how to meet the new performance standards and about whether or not they have met them (Higgins, Loeb, & Ruble, 1995; Ruble, 1994; Ruble & Seidman, 1996). Third, a school transition gives children a new group of peers, and children often compare themselves to these peers (Ruble & Seidman, 1996; Simmons & Blyth, 1987).

Hwang, Gorrell and Chung (2003) conducted a study involving forty students from four different grade levels (kindergarten, first, third, and fifth). This research sought to determine whether children's knowledge of appropriate self-regulated behaviors is related to the solving of school- or nonschool-based programs. From the data, researchers discovered that older children exhibit greater understanding of self-regulation in problem solving than do younger children. Age trends suggest that older children's greater

awareness in non-school settings may be an indicator of their more natural responses than responses associated with schooling.

Strategies of Self-Regulation

Self-regulation is also described as including task-related procedures such as self-monitoring, self-instruction, self-reinforcement, and goal setting (Graham, Harris, & Reid, 1992). Teachers can employ strategies related to these four competencies to help children increase their self-regulation.

Self-Monitoring. As identified by self-regulation researchers, Bandura, Pintrich and Zimmerman, self-monitoring is a significant metacognitive component of self-regulation (as cited in Al-Harthi, 2007). It is central to success in learning (Butler & Winne,1995; Pintrich, 2000, 2004). Learners with self-monitoring perform better academically in tests. According to Mace and Kratochwill's (1988) point-of-view, "self-monitoring refers to deliberate attention to some aspect of one's behavior and often is accompanied by recording its frequency or intensity" (p. 66). Most children have been taught one or more self-monitoring methods. These methods include: narrations, frequency counts, duration measures, time-sampling measures, behavior ratings, and behavioral traces, and archival records (Mace, Belfiore & Shea, 1989). Narrations are written accounts of behaviors and what is related to a specific behavior. Behavioral traces use self-recording about a certain behavior during a period of time. Duration measures are the number of times that a behavior occurs in a period of time. Time-sampling measures are used to divide a certain period of time into smaller time intervals, and to record a behavior that occurs in each interval. Behavior ratings are done to estimate a

degree to which a behavior would be exhibited during a given time. Behavioral traces and archival records are permanent records of other assessments, such as how many problems are solved correctly.

Reid and Lienemann (2006) explained that teaching children to use self-monitoring is straightforward. According to Reid (1993), there are four steps in teaching self-monitoring: selecting a target variable, collecting baseline data, obtaining willing cooperation, and instruction in self-monitoring procedures. For the first step, teachers need to determine which behaviors will be self-monitored, and define the exact target behaviors. The second step is to gather and record the behaviors that occur in a certain time: for example, how many times children got out of their seats when they should not do so. As for the third step, teachers need to schedule a time to address children's problem areas in a straightforward way, such as saying that staying in their seats means they will not lose their recess. In the final stage, teachers need to make sure children understand each step towards self-monitoring correctly and clearly. In time, children will be able to self-monitor themselves, but teachers will still need to pay attention to children's self-monitoring skills and how to further improve them.

Self-Instruction. Mace et al. (1989) stated that self-instruction includes discriminative stimuli that provide paths for self-regulatory responses that lead to reinforcement. There are two kinds of self-instruction (Shrunk, 2004). One type involves arranging the environment to produce discriminative stimuli; another type takes the form of statements, such as rules, to be the discriminative stimuli to guide behavior. Self-instruction includes many functions. According to Graham and Harris (1992), there are six basic functions of self-instruction, which are shown in Table 2.2. According to Reid

and Lienemann (2006), there are four processes that teachers can follow in strategies to promote self-instruction. The first process is to teach children the importance of verbalization by explaining that what children say to each other can help and hurt each other. The second step is for teachers and children to develop task-appropriate self-statements (talking aloud to one-self) together. For successful self-instruction, self-statements must be meaningful to children. Third, teachers and children can discuss how they might use these self-statements. This stage helps children to see how other peers use self-instruction, and this motivates them to use their own self-instruction. Finally, teachers can prepare opportunities for the practice of self-instructions when performing tasks.

Table 2.2
Examples of Self-statements Associated with the Six Basic Functions of Self-Instruction

Type of Self-Regulation	Examples
Problem definition—defining the nature and demands of a task	"OK. What do I need to do now?" "What's my next step?"
Focusing attention/planning—attending to task and generating plans	"I need to take my time and concentrate." "What's the best way to do this problem?"
Strategy related—engaging and using a strategy	"I need to remember to use my strategy." "Okay, what I need to do is remember my 4 B's strategy."
Self-evaluation—error detection and correction	"I need to check and see how I am doing." "Does this answer make sense?" "Oops, this isn't right. I need to fix it."
Coping—dealing with difficulties/failures	"I can do this if I keep at it." "This isn't rocket science. I know I can do it." "Take a deep breath and relax."
Self-reinforcement—rewarding oneself	"I did it! Great job!" "I worked hard and I got it right!"

Self-Reinforcement. Self-reinforcement is the process by which an individual identifies a reinforcer or reward for his or her responses, which increases the likelihood of his or her future responses (Graham et al., 1992; Mace et al., 1989). For example, "If I finish my homework, I can watch television." Reinforcement contingency often occurs in the context of instruction and classroom rules. Children tend to not initiate their own work on their school material, but rather are told to by their teachers (Schunk, 2004). There are four processes that teachers can use to help children with self-reinforcement (Reid & Lienemann, 2006). First, teachers need to determine what standards must be met before rewards are received. The second step is for teacher to select a reinforcer, and it is better to involve the children in this process. Third, teachers can determine how children evaluate their work. In the final step, if children meet or exceed the standards, they may reward themselves with the reinforcer.

Goal Setting. According to Bandura's (1986) point-of-view, goal-setting is an important component of self-regulation. Besides, Zimmerman and Bandura (1994) found a noteworthy replication of the magnitude of the contribution of two self regulation factors, perceived academic self-efficacy and personal goal setting, in predicting student achievement. Zimmerman (2002) also found that academic self-regulation was the most explanatory variable about student attrition and persistence with goal setting being the driving force for persistence. Goals have many useful functions. Schunk (1990) explained the major three functions of goal-setting. The first function is to provide a target for one's efforts by stating out goals structure. In other words, goals structure is the steps or information on how to accomplish the goal. The second function is to provide

information on the progress made in reaching them. The last function is to motivate performance; achieving goals reinforces one's efforts.

The process of goal-setting is straightforward (Reid & Lienemann, 2006). Teachers and children can discuss appropriate goals, set a timeline for meeting the goals, and monitor the progress towards accomplishing the goals. Zimmermann and Martinez-Pons (1990) found that girls displayed more goal setting than boys. By setting goals, children can develop their self-evaluation skills (Reid & Lienemann, 2006). For example, when teachers assign a project to children, teachers can divide the project into small parts and give timelines so children cannot wait until the last minute to do the project. By checking progress on the smaller parts, teachers ensure that children are on the right track and doing a good job. Children can accomplish their goals when teachers help them.

Understanding the Transition from Kindergarten to First Grade

In this research study, transition is the stage in which there is movement from a lower level of education containing basic knowledge to a higher level of education during children's development (Tsai, 1993). According to Pianta and Cox (1999), children assume the "full" role of student when they get into first grade, and children will occupy this role for many years. The early performance of this new role determines adulthood much later on based on occupational categories. Moreover, according to the National Policy Forum (1992), children face five challenges during this transition:

1. Spending more time away from home: which increases the independence of children and decreases attachment to their parents.

2. The environment is quite different since first grade contains a more formal educational experience, such as acquiring reading, writing, and mathematics skills. In addition, the teaching method is different as well.
3. Having a bigger class means that teachers must share their attention with more children.
4. Not having prior accomplishments and recognition of strengths beforehand leads to competition between peers.
5. Possibly as a result of poor adaptation or performance and lack of recognition by adults, students may be unnecessarily misplaced or retained in one or another elementary grade school levels or programs.

From the parents' perspectives, during this transition they pay lots of attention to children's manners, behaviors (e.g., self-regulation), academics, emotional development, and relationship (e.g., friendship) development (Liu, 2006). However, teachers' greatest frustration is with first graders' concentration problems. Although these children are more capable of interacting with different activities (e.g., draw, sing, and listen at the same time), they cannot concentrate on one thing at a time (Corsaro & Molinari, 2005). Thus, many parents and teachers are very concerned about children's self-regulation.

Differences and Similarities in Kindergarten and Elementary School Environments

A child's environment is a factor that can influence teachers' and parents' understanding of a child's characteristics, learning skills, and social skills. Environments such as school, home, and communities all influence children's development of different competence. According to Cartledage and Milburn (1995), observing a child's everyday

surroundings can give teachers and parents a wealth of information about the child. The school is one of the most important environments because it provides different areas such as a playground, hallway, classroom, and school cafeteria—all of which affect children's learning and knowledge, and gaining of the behavior, social, and academic skills they need (McGinnis & Goldstein, 1990). There are many differences and similarities in kindergarten and first grade environments. In the following sections, curriculum, activities, and peers are compared between kindergarten and first grade.

Curriculum

Kindergarten. The kindergarten curriculum mostly focuses on children's socialization skills and how to improve these skills before entering elementary school. Many teachers believe that it is not necessary to have academic instruction in kindergarten, but rather to let children learn through play and self-directed activities (Pianta & Cox, 1999). A survey has shown that 62% of public school kindergarten teachers in the United States disagree that "most children should learn to read in kindergarten" (Heaviside & Farris, 1993). But over the years, academic achievement has become increasingly important to kindergarten (Springer, 1997).

Developing language skills is the central mission in preschool and kindergarten (Tobin, Wu, & Davidson, 1989). Different countries have different ways of helping children's language development. Enunciation, diction, memorization, self-confidence in speaking, and performing recited stories and moral tales are the ways that children develop their language skills in China (Tobin, Wu, & Davidson, 1989). In Japan, language use is separated into formal and informal conversations. Children can speak

loudly and freely at times, but unrestrained language is restricted at formal, polite recitations. In Japan, language is more a medium for social purposes than self-expression. In America, children are taught that language is to be used for self-expression and freedom of speech (Tobin, Wu, & Davidson, 1989). In comparing these three countries, one can see that language and culture are linked intimately, which means that children are encouraged to have different forms of conversation, moral voice, and moral development depending on where and how they have been raised (Winegar & Valsiner, 1992).

First Grade. Many different kinds of academic tasks are introduced to children when they enter elementary school, including the following: language, which involves reading, listening, and writing, along with literacy activities; problem-solving in mathematics; social science; geography; and physical education. Based on these academic courses, children have to follow performance standards, and they receive direct feedback from a teacher for the first time. Academic school adjustment has been separated into three categories: Achievement motivation (the degree children are willing to attach to school learning), perceived competence (children's perception of academic and social skills), and classroom conduct (compliance to rules and order) (Schneider, Attili, Nadel, & Weissberg, 1989).

Most children are very new to classroom conduct, since in kindergarten most teachers let children express themselves freely (Tobin, Wu, & Davidson, 1989). Beginning in the first grade, rules and orders are a big challenge. Children do not have as much play time as in kindergarten, and they have to work quietly, even while working in groups, without the teacher's supervision, and they have to speak in a low voice. Also, they are not able to walk freely around the classroom, but instead must stay in their seats

until the teacher allows them to leave. Moreover, children have to learn how to control themselves, since they might be punished for not following the rules. Teaching appropriate classroom conduct helps teachers correct some children's disorderly actions, which is another way to help children gain in social competence. For the first three weeks, children learn to become accustomed to rules and orders, and to control themselves (Corsaro & Molinari, 2005).

Activities

Kindergarten. Most kindergartens have a morning meeting period, which is the time when the teacher asks children about any interesting experiences they have had outside of school. This time period gives children a chance to share something with each other, and makes every one of them feel that he or she is a member of the group (Corsaro & Molinari, 2005).

Classroom and outside activities also often take place during school hours. In America, 97% of public schools—the majority of public school kindergartens—have activity centers organized into thematic work and play areas, and children can interact with others under the teachers' direction or presence (Heaviside & Farris, 1993). The activities include drawing, playing with toys, reading books, socializing with other children, group performance, singing, etc. At the same time, teachers walk around, either giving directions, helping children with their activities, or socializing with them. Participating in activities helps children learn through their contributions, and gain knowledge related to their lives (Corsaro & Molinari, 2005). A look at Japan, China, and America reveals that 91% of Japanese respondents believe that group experience is one

of the top three most important reasons to engage in preschool and kindergarten, but only 44% of Chinese and 62% of American respondents agreed with this statement (Tobin, Wu, & Davidson, 1989).

Field trips are a special type of activity that enables children to get to know their city and culture. Field trips can also give them the opportunity to participate in the communities around them, such as through union picnics or ethnic street festivals (Corsaro & Molinari, 2005).

First grade. Compared to kindergarten, the "morning meeting period" is different in elementary school. Children have to be quiet, sit in their seats, and wait for the teacher to take attendance until they ask whether children have anything special to share, then children can begin to speak but must first raise their hands.

Classroom activities are mostly focused on the knowledge already possessed by children or new topics that are introduced after the activities. Often, teachers want children to work by themselves, and then work in groups. Since literacy is an important goal in elementary school, many activities are based on helping children gain literacy (Corsaro & Molinari, 2005). For example, teachers read stories to children from picture books and then ask them to draw what happened in the story and write a description of the picture. Most activities include discussions in class, which give children the chance to express their different points-of-view.

Peers

Kindergarten. At an early age, children understand and learn about friendship. Friendship for children is essential because those who have friendship skills enjoy a sense

of mutual attachment and common interests (Hasselt & Hersen, 1992). Children in kindergarten tend to make friends by playing together, engaging in the same activities, being in physical proximity, and having common expectations (Merrell & Gimpel, 1998). If children have difficulty making friendships, then they may have some problems with social and emotional development (Hasselt & Hersen, 1992). Teachers can play a role in helping those children who have difficulty forming and maintaining friendship by teaching them about making good eye contact, having a friendly face, thinking about how to start a conversation, listening and saying something back, etc. (Roffey, Tarrant, & Majors, 1994). Cosaro and Molinari (2005) discovered that children all know that they may not be able to stay together when they get into first grade, but they rarely mention separation from friends. At this stage, children's friendships are very transitory.

When children attend kindergarten, they have to adapt to certain circumstances such as separating from parents, understanding and accepting the teacher's authority, and making new friends, but these conditions will already be familiar if children have previously attended preschool (Schneider et al., 1989). Several studies have suggested that when children enter kindergarten, the presence of familiar peers in the classroom can make the transition less stressful. Also, teachers can attempt to teach children how to refrain from aggressive acts and have more positive contact with their peers, which are steps that help children establish new friendships and develop their own reputations with peers before entering elementary school.

First grade. Elementary school often entails separation from the friendships children made in preschool. New friendships develop, and the meaning of friendship changes for children. At this stage, children want their friends to be understanding, loyal,

and trustworthy, rather than just being playmates (Hasselt & Hersen, 1992). Moreover, children begin to want to maintain relationships with their friends.

Since elementary school is a large community and children stay in this community for quite some time, their social reputations and expectations of peers follow them as they move from grade to grade (Schneider et al., 1989). During elementary school, children begin to separate into groups. Gender separation is much stronger than in kindergarten. Based on their play in first grade, about 68.7% of children interact with the same gender, compared to 48.6% in kindergarten (Corsaro & Molinari, 2005). Gender separation occurs mostly because many boys have more aggressive styles of play.

Other forms of maturation occur as well, as shown by many ethnographic researchers in the United State and Italy. For example, ”children attempt to evade adult rules through collaboratively produced secondary adjustments, which enable the children to gain a certain amount of control over their lives in these settings” (Corsaro, 1985, 2003, 2005). This behavior begins to occur in the first grade, when groups of children challenge or violate the rules of social institutions.

Children’s positive and negative behaviors show more clearly at this stage. Many different reactions and feelings can be seen in the classroom, such as pride and prejudice, prejudging, fear of avoidance, peer acceptation and rejection (Roffey, Tarrant, & Majors, 1994). For example, if a child is aggressive with his/her peers and has negative interactions with most children in class, then most classmates tend to dislike this child, who may be viewed by teachers as being poorly adjusted.

Parents' and Teachers' Attitudes toward Education

> *The parents' perception of school, if they like school, if they are comfortable here, makes a big different to a child's transition. They are just more at ease, and that goes back to their children and their children are more at ease here. (p. 8)*

This quotation is from a kindergarten teacher who talked about parents' attitudes in an interview (Pianta & Kraft-Sayre, 2003). Based on this quotation, teachers are not the only ones to influence children. Parents' attitudes towards education are important as well. Thus, parents' and teachers' perceptions of education are discussed separately in this section.

Parents' Perception

To gain a better understanding of parents' perception of education, this part contains three sections: (1) views on school, (2) views on teachers, and (3) attitudes towards transition:

Views on School. Western and Eastern parents differ greatly in their points-of-view towards school. U.S. parents tend to be more dependent on schools for education. Parents in Asian countries, such as China, Taiwan, Korea, and Vietnam, tend to push their children due to high expectations and tight discipline at home. In a way, they have firm control over their children and they are confident about guiding their children toward their futures. Asian parents therefore are most likely not to attend parent meetings at school. However, all parents world-wide believe that education is primary to teaching children the skills that will allow them to become economically independent, and teach children proper social behavior (Banerian, 1991).

Views on Teachers. A culture has a big impact on parents' expectations of teachers. In the United States, children attend schools based on the geographic location of their residence, and they can go to school until high school without any comprehensive examinations. Most U.S. parents think that education is a cooperative venture involving the home, the student, and the school, which is another way of saying that they are willing to work with school teachers. Thus, U.S. teachers and parents work together often, which is quite different than in Eastern countries. Since getting into the top schools is very competitive, Asian parents consider education to be the school's responsibility (Banerian, 1991). Asian teachers are treated with great respect, but at the same time, parents watch over teachers and judge whether they have the abilities to educate their children well.

Attitudes towards Transition. During children's transition periods, parents can be as nervous as their children. During the first month of the first grade, parents can be worried, fearful, and anxious about their children going to a new environment, since kindergarten and first grade are two different environments. Several days before the start of school, many parents take their children to walk around the elementary school, to enable them to see and feel a little more comfortable when school begins. At three points, parents are most concerned about their children. First, parents fear that their children might not feel comfortable in a new environment. On a child's first day of school in the first grade, many parents wander around outside the school gates or outside of the classroom (Nicholls & Gardner, 1999). Second, parents worry that their children will not behave well in class. For example, one parent said that her boy had problems sitting still and being quiet for longer periods, and she feared that her boy would face problems in

class (Corsaro & Molinari, 2005). Third, parents are concerned about the new aspects of first grade, such as homework, reading, writing, and problem-solving. Parents can worry that the level of their children's literacy is not good enough and that they might not be able to catch up in classes. By the time children feel comfortable and settled in the first grade, parents have become calmer and may not be as anxious about their children's school lives (Nicholls & Gardner, 1999). Overall, if kindergartens have a good curriculum, environment, and teachers, parents tend to feel better and think their children are ready for elementary school (Corsaro & Molinari, 2005). Moreover, many studies have shown that attending kindergarten has positive effects on children's transition to first grade based on the areas of social adjustment and academic performance (Barnett, 1996; Consortium of Longitudinal Studies, 1983; Entwisle & Alexander, 1999).

Teachers' Perception

To gain a deeper understanding of teachers' perceptions of education, parents' views and attitudes toward transition are discussed in this section.

Views of Parents. Teachers view parents as teacher's helpers who understand children's characteristics, guide and educate, and give support in reaching common goals (Gestwicki, 2004). Most teachers believe that teachers, parents, and children all benefit when they are working as a community (Fisher, 1998). However, teachers become frustrated when parents do not cooperate and have difficulties taking responsibility in their children's education. One kindergarten teacher expressed frustration with working with parents in an interview (Pianta & Kraft-Sayre, 2003):

> We do ask some things. For instance, homework is ignored. For example, I sent home a not for conferences yesterday saying, 'I want to talk with you and I think it's very important, and I hope you feel the same way.' Out of my whole class, not one parent responded. (p. 82)

In addition, teachers feel that parents who engage in positive communication with school support their child in social, emotional, and academic growth at home (Fisher, 1998).

Attitudes towards Transition. In preparation for children's transitions, kindergarten teachers develop special courses for children that ensure that they have the basic knowledge needed to navigate first grade. Many elementary school teachers have stated that the preparation made by kindergarten teachers is quite important in children's transition. However, not all the children have attended kindergarten or preschool, so elementary teachers spend one month maintaining continuity with the kindergarten curriculum, which includes courses based on play, telling stories, singing songs, and making rhymes (Corsaro & Molinari, 2005). During this period of time, either kindergarten teachers or elementary teachers pay lots of attention to children's learning ability and social relations. Since it's quite difficult for first-grade teachers to teach children who are at different levels of literacy, the special courses have to fit all children's levels of literacy (Sun, 2004). After a few months, the class becomes more homogenous and the relationship between children and teachers becomes stronger (Corsaro & Molinari, 2005). Overall, both kindergarten and first-grade teachers try their best to help children to get through this transition smoothly without any difficulties.

Parents' Roles and Parents' Involvement

Parents are one of the important influences in children's lives. Every move that parents make can affect children's behavior; parents are role models for what their children aspire to be in the future. Since parents play such a big part in children's development, most teachers want parents to get involved in their children's schooling as well, especially when there is a transition from school to school, or from grade to grade. Pianta and Kradft-Sayre (2003) interviewed several teachers about children's educational transition periods, and these teachers often mentioned the importance of parents' attitudes and involvement. The teachers pointed out that parents' attitudes play a big part in children's education—if parents feel welcome and comfortable at their child's school, they tend to be more willing to work with school teachers. While parents are a crucial influence on their children's education, "parenting" has never been easy work. Parents have to take on multiple responsibilities, and parenting involves different roles as well as profound emotional responses to children (Gestwicki, 2004).

Parents' involvement is a pervasive, basic aspect of school culture (Lazar & Slostad, 1999). Parent involvement in school has strong effects on children's development and academic performance. Many researches have shown that parents' involvement improves children's attitudes towards school, homework habits, attendance, and academic achievements (Feuerstein. 2000). The level of parents' involvement mostly depends on their occupations and perspectives. For example, a family might be capable of getting involved broadly because the mother is a housewife, but for another family, they may only have a small amount of time to become involved since both parents have to work (McArthur, 1998). Although not all parents can be deeply involved in school, it

is better to have some involvement than none. This aspect is described in the following sections: (1) parents' roles, (2) areas of involvement, (3) effects of involvement, (4) advantages and disadvantages of parental involvement, and (5) parents' barriers.

Parents' Roles

A parent can play six different roles in their child's life: nurturer, individual, worker, consumer, community member, and educator (Gestwicki, 2004).

Nurturer. Being a nurturer is the primary role played by parents. This role includes being caring, encouraging, supporting, and nourishing towards children. Nurturing helps the development of children's brain growth. As time goes by, nurturing leads to attachment development. A parent's role as a nurturer provides the optimum opportunity for a child's development (Gestwicki, 2004).

Individual. As individuals, parents have to consider how to be a good parent to nurture their children. On the other hand, a parent is an adult who is in a relationship with another adult. The interaction between father and mother affects children's development.

Worker. Most parents consider parenting and working to be the two most important tasks involved in being a parent (Gestwicki, 2004). At the same time, being a worker and parent at the same time can conflict with each other. Since most workers have to work about 40 hours per week, working parents often have little time to spend with their children. Therefore, parents have to find a way to adjust their levels of working and parenting, such as asking relatives in the family to take care of children, taking children to day care centers, or even possibly quitting a job to be a parent.

Consumer. If parents are workers, then they are consumers as well. They devote large proportions of their income to their child's care and education. However, if only one parent is working to support a family, the family can easily have financial problems. When there is a time period when finances are not stable, a family can easily be thrown into a crisis if parents do not have enough money to afford child care and children's educations later on.

Community Member. As Gestwicki has stated, a community is a place that is structured by a group of people that makes rules and legislation and engages in decision-making, both public and private. In other words, in a community, parents are able to express their opinions for their children and for themselves. As community members, parents are able to give and get help from their outside social network within the community. Based on Gestwicki's point-of-view, parents' actions in communities can help show the government the importance of child care professionals and families.

Educator. This is the most unpracticed role for parents. Parents sometimes are not quite sure that they have the abilities to teach skills and knowledge to their children. But as educators, parents should focus on two tasks for their children at early ages: socialization and schooling preparation (Gestwicki, 2004). Teaching children about socialization is another way of saying that they wish their children to be "ready for preschool and kindergarten". Then by the time children attend preschool, parents as educators are most likely to focus on their children's work in school and shaping children's behaviors.

These different roles can lead parents to have different attitudes towards school, and they sometimes may not be able to get involved in school with their children.

Areas of Involvement

Parents often choose the type of involvement that best fits into their lives. There are several types of involvement during children's transitions, such as participating in home visits, volunteering in school, and being involved in policy making and decision making.

Participating in Home Visits. Home visits are a way to connect teachers or staff with parents. By having parents participate in home visits, teachers are able to bring school activities into home environments. In addition, teachers or staff can show parents how to use household items and toys as educational materials (McArthur, 1998). By participating in home visits, parents can learn how to help children increase their academic and social skills, and develop relationships with teachers as well as with children.

Volunteering in School. Being a volunteer is a way to learn what has changed in their child's education, such as changing class schedules and adding new curricula, and it encourages parents to be active and also to interact with children in the classroom. Some activities or events that include parent volunteers are the following:

1) Creating an open class in which parents can come into their children's classroom and sit in for one lesson or activity.
2) Coming to class to give lessons or activities based on their jobs and backgrounds.
3) Planning for field trips and assisting or leading a trip.
4) Helping with children's academic assignments, decorating classroom boards (Rossi, 2001).

Involvement in Policy Making and Decision Making. About 67% of private kindergarten parents and 76% of public kindergarten parents agreed that involvement in policy and decision making is very important (Pianta & Cox, 1999). Parents want to get involved through parent-teacher associations, for example, because they can have a voice in choosing their children's activity programs, and at the same time they have the right to question and change school curricula and policies that directly impact their children's education (McArthur, 1998).

Effects of Involvement

Parents' involvement benefits children's social and academic activities (Wong, 1996). The influences of parents' involvement on children's education are mostly shown through their cognitive development and social behaviors, their motivation towards school, and their achievements in school.

Cognitive Development and Social Behaviors. Fan and Chen (2001) showed that children's cognition is positively correlated with parents' involvement. Parents' involvement has a positive correlation with children's social behaviors (Henderson, 1987; Taylor & Machida, 1994).

Motivation towards School. Motivation has a big impact on children's education. Since parents can strongly influence children's motivation towards school (Clark, 1993), parents' involvement definitely gives children the feeling that parents care about their school life, such that children are motivated to learn, leading to their higher achievement in school.

Achievement in School. One of type of parental involvement, volunteering, helps children achieve more in school. In kindergarten, children's achievements occur in language abilities and performances in schools, such as behavior and social skills. Starting in the first grade, children achieve in reading, listening, writing, and problem-solving. Becoming interested in school activities and attending school functions are other achievements that children can gain from, besides academic subjects (McArthur, 1998).

Advantages and Disadvantages of Parental Involvement

Gaining cognitive development and social behaviors, being motivated in school, and attaining high achievement in academic courses are the advantages of parents' involvement. However, there are some disadvantages if parents get too involved in school; some teachers may be less active, and may feel uncomfortable working with parents. Teachers may express concern that parents are taking over their roles (Rossi, 2001). Overall, it is best to have parents and teachers work together on children's education.

According to Parker et al. (1997), Head Start participation leads to maximum parental participation in all programmatic efforts and policy decisions, improves family life through improved parent-child relationships, enhances home learning environments, leads to greater social competence for children, increases parental involvement in elementary school, and increases parental self-sufficiency.

Moreover, Gettinger and Guetschow's (1998) study focused on parent involvement in the Child-Parent-Center preschool program and its influence on disadvantaged children's social and emotional development. The research found that parent participation

in children's education was associated with children's social and emotional development, as measured by social adjustment and peer social skills (Gettinger & Guetschow, 1998).

Parents' Barriers

Parents face several barriers to involvement in their child's school. These barriers arise from teachers' and parents' different perceptions of parents' beliefs and involvement, and school resistance.

Parents' beliefs and attitudes can affect their involvement in school activities and meetings. Parents who think work is more important than their children's education will not get involved in school. Since teachers seek parents' involvement in school, parents need to try to find free time, which can be quite difficult. Teachers often become annoyed with parents who do not show up for school activities and meetings, but parents can feel uneasy and stressed about being made to participate in school activities and meetings (Pianta & Cox, 1999). In addition, parents know that they have time to get involved in children's academic and social skills at home. In terms of their school involvement, some parents may feel that they are not welcome at school, or teachers are not friendly. These problems can involve cultural issues; parents who have such problems are mainly bicultural parents with language differences (Olivos, 2006). Table 2.3 is based on the National PTA's parent survey of reasons for parents' non-participation in their children's school settings (Gestwicki, 2004).

Table 2.3

Parent Survey, National PTA

Barriers to Participation Identified by Parents	
Not enough time	89%
Feel they have nothing to contribute	32%
Don't understand or know how to be involved	32%
Lack of child care	28%
Feel intimidated	25%
Not available during time scheduled	18%
Language and cultural differences	15%
Lack of transportation	11%
Don't feel welcome	9%
Other barriers	21%

Summary

In conclusion, although some skill differences are learned and practiced in kindergarten and first grade, children increase their different competencies in these environments. From the curriculum, children increase their academic abilities and literacy skills. School activities help children build their physical and interpersonal skills through games, sharing toys, and conversing. With regard to their peers, children help each other understand friendship, and as they grow older, they begin to demonstrate characteristics, such as being aggressive, easy-going, lazy, clever, or violent. Children's reputations grow in importance for them as they get older. With teachers' support and help, and as long as children are willing to listen to teachers and change incorrect behaviors, the development of children's different competencies increases from kindergarten to first grade.

Parents also play an important role in their children's education, in addition to that of teachers, and parents' involvement is the link that connects teachers, parents, children, and the community together (Rossi, 2001). During children's transition periods, parents' involvement can help children feel comfortable and settled in the new environment.

Involved parents notice their children's difficulties and help them with social relations and academic subjects. Moreover, with teachers' help, children are able to fit into new environments quicker and avoid falling behind on academics. Although parents' barriers may stop them from involvement in school, teachers have to find a way to work with parents, and parents have to change their attitudes towards teachers and involvement as well. Overall, preparing for and doing their best with children's education is both the teachers' and parents' goal. Therefore, when parents and teachers become better partners in schooling, children can increase their social skills and academic mastery more rapidly.

Due to the importance of self-regulation in children's academic performance and social competence, many self-regulation strategies have been developed to provide teachers ways to guide children in gaining self-regulation abilities. Many researchers have proven that these strategies can improve children's academic abilities (Schunk, 2004). Teachers can use these strategies to help children learn self-monitoring, self-instruction, self-reinforcement, and goal-setting. At the same time, children gain ego development and self-evaluation skills as they learn these competencies (Reid & Lienemann, 2006). As children increase their self-regulation abilities, their social and academic skills also increase (Boekaerts, Pinrich, & Zeidner, 1999).

Chapter 3

METHODOLOGY

The purpose of this research study was to gain an understanding of the factors that influence children's self-regulation behavior at school and at home, and attention was also paid to the effects of head teachers' and parents' interacted attitudes and involvements toward children's self-regulation behavior. This chapter describes the study's methodology in the following sections: (1) research design, (2) research participants, (3) instrumentation, (4) data collection procedures, and (5) data analysis.

Research Design

Survey research was chosen as the method to accomplish this research study. A survey is an instrument used to collect data that reveals information on one or more characteristics of a specific population by asking a set of questions (Gay, Mills, & Airasian, 2009). According to Creswell (2003), use of survey design enables the study of a smaller sample of the population, and provides the researcher a description in either quantitative or numeric ways on trends, attitudes, or opinions of the population. There are five reasons to consider survey research design as the most preferred approach: (1) survey design can enable identification of the attributes of a large population through a small group of individuals; (2) participants can answer honestly without being afraid that their information will become known since names are not required by the researcher; (3)

participants' information can be shown via data explanation; (4) due to time issues, use of the survey approach is more efficient for both the researcher and participants compared to a qualitative narrative approach; and (5) in using the survey approach, participants can answer freely without pressure from the researcher.

Surveys are designed to be cross-sectional, so that data are collected from selected individuals at a single point in time (Gay, Mills, & Airasian, 2009). The form of data collection for this study was the questionnaire—a written collection of self-report questions to be answered by a selected group of participants (Gay, Mills, & Airasian, 2009).The questionnaire used in this research was separated into four sections; the details of each section are described in the instrumentation section of this chapter.

Research Participants

The original participants chosen for this research study were children who are currently in the first grade in Taipei City, which is one of the cities under the direct jurisdiction of the Central Government, and the capital of Taiwan. However, since these children were too young to fill out questionnaires and the researcher might have difficulty explaining the study to them, the questionnaires were filled out by the children's head teachers and parents, who were the actual participants in this study. To decrease confusion, the sample selection was still based on the population of children. According to DOE information in Taipei City, Taiwan, in 2007, there were 143 public elementary schools and 10 private schools. A total of 24,426 children attended first grade in public elementary schools, and 1,810 children attended first grade in private schools during fall 2007 (Taiwan DOE, 2007).

Two types of schools were excluded from this study. First, the researcher excluded private schools because the population's responses to questionnaire questions would affect the study in two ways: (1) families who can send children to private school have sufficient household income to do so, thus excluding other socioeconomic groups; and (2) most private schools extend from kindergarten to twelfth grade, so that children are most likely to attend kindergarten prior to first grade. Second, three of the national elementary schools include public elementary schools. National elementary schools first accept applicants with a parent who is either a university faculty or staff member; this policy could conflict with the parent's background information. Thus, these three schools were not included in the study. With these exclusions, the schools participating in this study were municipal elementary schools, and the overall number of first-grade children was 23,974. Based on Issac and Michael (1995), the sample size for a population of 23,974 was 377 participants with a 95% level of confidence (± 5% margin of error).

Taipei City has twelve districts, with each containing a different number of municipal elementary schools. Due to the difference in class size per school, the researcher only considered schools with a class size of 25 students or more. Moreover, since each class only had one head teacher, it was decided not to ask each head teacher to fill out 25 questionnaires or more (one questionnaire per student)—the research only focused on 10 students per class. Upon entry into school, each student is provided with an identification (ID) number; for this study, the researcher randomly selected 10 ID numbers per class, and hopefully obtained a close number of male and female students. The questionnaires were answered based on those 10 selected students per class.

In consideration of practical factors (e.g., location, financial resources, few schools in certain districts, balance in participants' access), only four districts were chosen for this research, with each containing six or more public elementary schools. The sampling design for the research was multistage, involving so-called cluster sampling, with stratification of the population. The random selection processes used in the sampling were as follows: first, the sample size for the population was 377 participants with a 95% level of confidence; and second, six public elementary schools were randomly selected from each of the four districts. After consideration of the return rate for questionnaires and exclusion of invalid questionnaires, the sample size was adjusted to: 50 head teachers and 481 parents. The sample selection procedure is shown in Figure 3.1.

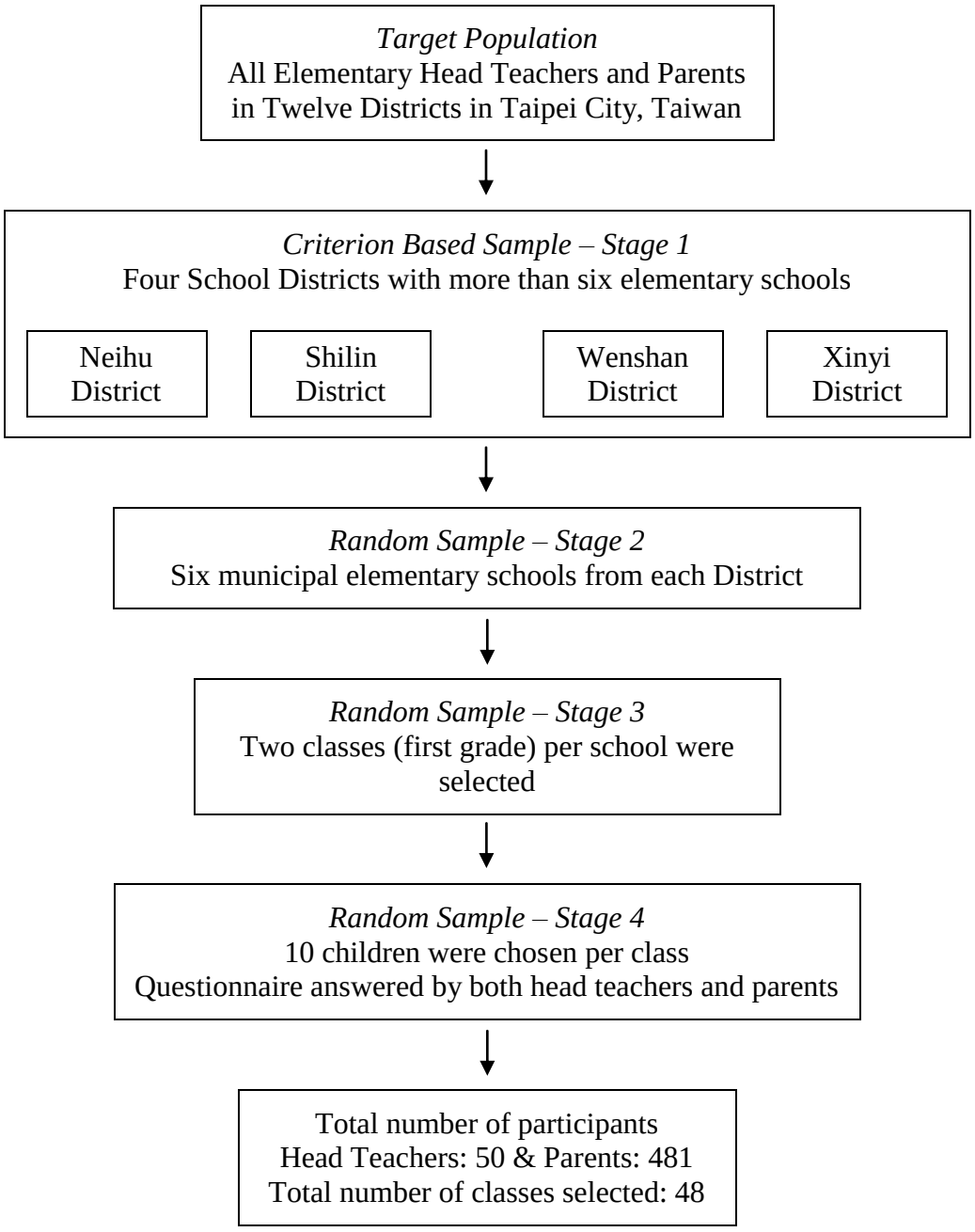

Figure 3.1. Random Sample Selection Procedure

Instrumentation

The self-report questionnaire was the instrument used in this research study. Studies using self-reports as the measure of behaviors are prone to many kinds of response bias (Donaldson, Thomas, & Graham, 2002; Schwartz, 1999; Stone, Turkkan, Bachrach, Jobe, Kurtzman, & Cain, 2000). Bias occurs when characteristics of respondents distort their responses, such as gender, race, ethnicity, and language (Gay, Mills, & Airasian, 2009). Although there are many criticisms of the accuracy and interpretation of identifications in self-report questionnaires, the biggest advantage of the self-report questionnaire is that the researcher is able to obtain quantitative data for analysis (Cohen, 1998; Ellis, 1994). Such measures are common because they are relatively easy to obtain and are often the only feasible way to assess constructs of interest (Donaldson & Grant-Vallone, 2002). The process followed in the design of the questionnaires was to: (1) develop the contents of the questionnaires, (2) select and convene expert panels review, and (3) conduct a pilot study.

Contents of Questionnaires

The questionnaire was designed by the researcher based on the self-regulation measure by Raffaelli, Crockett, and Shen (2005) and the Learning Style Inventory by Wu (2002). It had two forms—head teacher's form and parent's form—since it was answered based on head teachers' and parents' perspectives. The questionnaire was separated into the following sections: (1) respondents' and students'/children's background information, (2) respondents' interactions (head teachers and parents), (3) respondents' interactions

with students/children, and (4) respondents' understanding of students'/children's behavior.

Section I: Respondents' and Students'/Children's Background Information. This section was designed to obtain an understanding of head teachers' and parents' background information. In addition, the information could serve as a reference for answers to further sections of the questionnaire. In this section, the teacher's form contained six questions and the parent's form contained 12 questions; half of them focused on students'/children's background information.

Section II: Respondents' Interactions (Head Teachers and Parents). For both forms, four questions were asked and they were the same, but based on different perspectives. This section provided the researcher with insight into the relationship between the head teachers and parents, and indicated to the researcher whether head teachers and parents were willing to work together.

Section III: Respondents' Interactions with Students/Children. In this section, nine questions were asked on the head teacher's form, and 12 questions were asked on the parent's form. This section provided the research with ideas about the interactions between the head teachers/parents and students/children, and the types of involvement between head teachers and parents.

Section IV: Respondents' Understanding of Students'/Children's Behavior. This section was the main part of this research, and was divided into two categories: children's general behavior and children's learning behavior. Under both categories, there were four elements: (1) self-monitoring, (2) self-instruction, (3) self-reinforcement, and (4) goal-setting. Table 3.1 shows the numbers of questions in each section on both forms.

Table 3.1

Number of Items and Assigned Numbers in Each Version of Questionnaires (Section IV)

Category	Number of Items	Head Teacher's Form	Parent's Form
General Behavior	20	Part A	Part A
Self-Monitoring	6	1, 5, 9, 13, 17, 20	1, 5, 9, 13, 17, 20
Self-Instruction	5	2, 6, 10, 14, 18	2, 6, 10, 14, 18
Self-Reinforcement	4	3, 7, 11, 15	3, 7, 11, 15
Goal-Setting	5	4, 8, 12, 16, 19	4, 8, 12, 16, 19
Learning Behavior	19	Part B	Part B
Self-Monitoring	5	1, 5, 9, 13, 17	1, 5, 9, 13, 17
Self-Instruction	5	2, 6, 10, 14, 18	2, 6, 10, 14, 18
Self-Reinforcement	4	3, 7, 11, 15	3, 7, 11, 15
Goal-Setting	5	4, 8, 12, 16, 19	4, 8, 12, 16, 19
Total	39	39	39

The Likert response scale was used in this section. The choices allow an individual to respond to a series of statements by indicating his or her degree of agreement (Gay, Mills, & Airasian, 2009). The Likert scale here contained six points from "never true" to "always true".

Example:

This child likes to study.	Never True	Little True	Sometimes True	Often True	Mostly True	Always True
	1	2	3	4	5	6

This Likert-scale did not contain a midpoint choice (undecided or neutral) since many respondents may tend to choose the midpoint answer in order not to think further about the questions or to try to please the researcher. Thus, in order to increase the accuracy of the answer, the midpoint choices were eliminated.

Expert Panel Review

To assess content validity and clarity prior to the study, the draft questionnaire was developed in two languages and was reviewed by two expert panels. There were four steps in the expert panel review: (1) questionnaire designed in English, (2) first time expert panel review, (3) questionnaire translated into Chinese, and (4) second time expert panel review.

Questionnaire designed in English. The questionnaire in this study was based on two surveys: the self-regulation measure by Raffaelli, Crockett, and Shen (2005), and the Learning Style Inventory by Wu (2002). Some changes were made so that the questionnaire was suitable for this study. With help from a certified English-Chinese translator in the United States and professors at the Pennsylvania State University, the draft questionnaire was revised according to their suggestions for improvement. Later, the English version of the questionnaire was produced.

First Time Expert Panel Review. To ensure the content validity of the questionnaire, an expert panel was formed. The members of the expert panel reviewed the questionnaire's structure and contents, and offered suggestion to improve the validity of the instruments. There were four panelists for the first expert panel review:

- Dr. Thomas Yawkey, Professor of Curriculum and Instruction, Pennsylvania State University, University Park
- Dr. Ladislaus Semali, Associate Professor of Curriculum and Instruction, Pennsylvania State University, University Park

- Dr. Peggy Van Meter, Associate Professor of Educational and School Psychology and Special Education, Pennsylvania State University, University Park
- Dr. Edgar Yoder, Professor of Agricultural and Extension Education, Pennsylvania State University, University Park

Questionnaire Translated into Chinese. However, this study was focused on children's self-regulation behaviors in Taipei City, Taiwan, which meant that the English version of the questionnaire could not be used. Thus, the translation was vital. The aim of this procedure was to make translations of questionnaires able to be read and understood and expressed in a language in common use (Cull, Sprangers, Bjordal, Aaronson, West, & Bottomley, 2002). For this purpose, after the first time expert panel review, the researcher made some corrections and translated the questionnaire into Chinese.

One of the surveys on which the questionnaire was based was the learning style inventory by Wu (2002), which is in Chinese, so that back translation was used. Back translation is the translation from the translated language back to the source language. The general purpose is to see how the translation compares to the original text.

Because of the nature of language, there are always differences between the original text and the back translation, so it is unrealistic to expect the back translation to be identical or nearly identical to the wording of the original text. The researcher asked for a review by several Taiwanese university professors fluent in both English and Chinese and a certified English-Chinese translator in United States to ensure accuracy and validity of the structure and contents of the questionnaire in Chinese. Later, the Chinese version of the questionnaire was created. In addition, the professors also

reviewed the Chinese version of the cover letter and informed consent forms for the research.

Second Time Expert Panel Review. The second panel review was needed to ensure the structure and content of the questionnaire and the accuracy of the instrument in Chinese. Four Taiwanese university professors were members of the second time expert panel review:

- Dr. Jyh-Tsorng Jong, Associate Professor of Human Development and Family Studies, National Taiwan Normal University, Taipei, Taiwan
- Dr. Yu-Wei Lin, Associate Professor of Human Development and Family Studies, National Taiwan Normal University, Taipei, Taiwan
- Dr. Shin-Shin Chen, Associate Professor of Social Work, Chaoyang University of Technology, Taichung County, Taiwan
- Dr. Ying-Hsi Chang, Assistant Professor of Early Childhood Education, Taipei Municipal University of Education, Taipei, Taiwan

Pilot Study

A pilot study is a small-scale trial of a study conducted before the full-scale study, which gives the researcher a chance to field test some aspects of the research to identify problems with the research plan (Gay, Mills, & Airasian, 2009). After the Institutional Review Board (IRB) gave its approval, the researcher conducted a pilot study, which involved eight head teachers and 24 parents of 24 children from eight classes in the same school of the target area. These head teachers and parents were asked to complete the questionnaires. Having reviewers examine the questionnaire thoroughly is one way to

determine the content validity of the questionnaire, and the questionnaire should be tested with a few respondents who are similar to those participants in the study in many ways (Gay, Mills, &Airasian, 2009). Though these eight head teachers and 24 parents were from the target area, they were not included in the main research later on. Pilot testing the questionnaire provides information about instrument weakness as well as suggestions for improvement. If there are commissions, omissions, unclear or irrelevant items, the questionnaire should be revised (Gay, Mills, & Airasian, 2009).

Of the 48 questionnaires, 42 questionnaires were returned, for a return rate of 87.5%. Most of the head teachers and parents thought that the questionnaire was clear and easy to understand; after their review, only a few questions were changed slightly. In addition, two questions were added to the section on general self-regulation behavior and three questions added to the section on learning self-regulation behavior. These questions were added to obtain a better and further understanding of children's self-regulation behavior.

Data Collection Procedures

The data were collected in fall 2008. First, the researcher contacted all target schools indentified in Stage 2 (Figure 3.1) to see if they were willing to participate. After getting permissions from the principals, the researcher sent 11 packages for each selected class. Each package contained: (1) a cover letter that stated the purpose of this study, and provided an estimate of the finish time and questionnaire return procedures; (2) an informed consent form that provided information about participants' rights and privacy, noting that if they agreed to participate, they should finish the questionnaire and return it

in an envelope to be provided by the researcher; (3) a copy of the questionnaire; and (4) a small gift for each participating head teacher in this study. Thus, in these 11 packages, one package contained one cover letter, one consent form, and 10 questionnaires, which were for the head teacher. The other 10 packages each contained only one cover letter, one consent form, and one questionnaire for each of 10 parents.

The parents returned the questionnaire in a sealed envelope to the Office of Academic Affairs within one week and the researcher collected the finished questionnaires after one week. Head teachers had more questionnaires to fill out, so they had two weeks to complete 10 questionnaires and return them in a sealed envelope. The researcher checked on the head teachers' process after one week and asked if they had any questions. The questionnaires from the head teachers ware collected after two weeks. If there were any unreturned questionnaires, the researcher immediately called those who had not yet returned questionnaires. The researcher sent out a follow-up postcard to parent respondents after one week and head teacher respondents after two weeks. For those who did not turn in the questionnaires, the researcher sent a letter about the importance of this study and another copy of the questionnaire. The researcher gave those participants another week or two to finish the questionnaires. Thus, the estimated time for the entire data collection process was from three to four weeks.

Data Analysis

The data were coded, entered, and analyzed using the statistical software program, SPSS (Statistics Package for the Social Sciences) 17.0. The chosen methods of analysis were the following: explore, curve estimation, linear regression, bivariate correlation

(Pearson's correlation), one-way analysis of variance (one-way ANOVA), and independent samples T test.

Linear regression was utilized to examine the relationship between different variables. Those variables that were examined are listed below: (1) children's overall self-regulation behavior at home and parents' background, (2) children's overall self-regulation behavior at home and children's background, (3) children's overall self-regulation behavior at school/at home and head teachers' and parents' interactions with each other, and (4) children's overall self-regulation behavior at school/at home and head teachers' and parents' involvement in children's behavior. Before using linear regression, explore and curve estimation were used to check if there were problems in any variables.

As Pearson's correlation in bivariate correlation was used to see if there was a relationship between children's self-regulation behavior and their gender, in order to identify significant differences between children's self-regulation and their gender, one-way ANOVA was chosen. Children's self-regulation behavior here includes general behavior, learning behavior, and overall behavior in self-regulation.

Furthermore, Pearson's correlation in bivariate correlation was once again used to ascertain relationships in children's self-regulation behavior in different settings, including general behavior, learning behavior, and overall behavior in self-regulation. An independent samples t-test was utilized to compare children's self-regulation behavior at school and at home. Table 3.2 summarizes the data analysis procedures.

Table 3.2
Data Analysis Procedures

Research Question	Variables	Scales of Measurement	Part of Questionnaire	Method of Data Analysis
1. How is children's overall self-regulation behavior at home influenced by parents': (a) gender (b) age (c) educational level (d) primary occupation (e) monthly household income (f) child's caregiver?	Independent Variables:		Parent's Form:	
	• Gender	Nominal	• Section I, Question 1	
	• Age	Interval/Ratio	• Section I, Question 3	
	• Educational level	Interval/Ratio	• Section I, Question 4	
	• Primary occupation	Nominal	• Section I, Question 5	
	• Monthly household income	Interval/Ratio	• Section I, Question 6	Explore Curve Estimation
	• Child's caregiver	Nominal	• Section III, Question 9	Linear Regression
	Dependent Variables:		Parent's Form:	
	• Children's overall self-regulation behavior at home	Interval/Ratio	• Section IV	
2. How is children's overall self-regulation behavior influenced by other factors when examined by: (a) number of siblings (b) birth order (c) months attended school before going to first grade (d) types of school attended before going to first grade (e) average time spent daily on homework assignments	Independent Variables:		Parent's Form:	
	• Number of siblings	Nominal	• Section I, Question 7	
	• Birth order	Nominal	• Section I, Question 8	
	• Months attended school before going to first grade	Interval/Ratio	• Section I, Question 10	
	• Types of school attended before going to first grade	Nominal	• Section I, Question 11	Explore Curve Estimation
	• Average time spent on homework assignments	Interval/Ratio	• Section III, Question 10	Linear Regression
	Dependent Variables:		Parent's Form:	
	• Children's overall self-regulation behavior at school & at home	Interval/Ratio	• Section IV	

(*table continues*)

Table 3.2 (*continued*)

Research Question	Variables	Scales of Measurement	Part of Questionnaire	Method of Data Analysis
3. Is there a significant difference between children's (general, learning, and overall) self-regulation behavior and their gender?	Independent Variables: • Gender	Nominal	Parent's Form: • Section I, Question 9	Bivariate Correlation One-Way ANOVA
	Dependent Variables: • Children's general self-regulation behavior at school & at home	Interval/Ratio	Head Teacher's Form: • Section IV, Part A Parent's Form: • Section IV, Part A	
	• Children's learning self-regulation behavior at school & at home	Interval/Ratio	Head Teacher's Form: • Section IV, Part B Parent's Form: • Section IV, Part B	
	• Children's overall self-regulation behavior at school & at home	Interval/Ratio	Head Teacher's Form: • Section IV Parent's Form: • Section IV	
4. Is there a significant difference between children's (general, learning, and overall) self-regulation behavior in school setting and home setting?	• Children's general self-regulation behavior at School & at Home	Interval/Ratio	Head Teacher's Form: • Section IV, Part A Parent's Form: • Section IV, Part A	Bivariate Correlation Independent Samples T Test
	• Children's learning self-regulation behavior at School & at Home	Interval/Ratio	Head Teacher's Form: • Section IV, Part B Parent's Form: • Section IV, Part B	
	• Children's overall self-regulation behavior at School & at Home	Interval/Ratio	Head Teacher's Form: • Section IV Parent's Form: • Section IV	

(*table continues*)

Table 3.2 (*continued*)

Research Question	Variables	Scales of Measurement	Part of Questionnaire	Method of Data Analysis
5. (a) How is children's overall self-regulation behavior at school related to both head teachers' interactions with parents and their involvements in children's behavior?	Independent Variables • Head teachers' interactions with parents and children	Nominal Interval/Ratio	Head Teacher's Form: • Section II & III	Explore Curve Estimation Linear Regression
	Dependent Variables: • Children's overall self-regulation behavior at school	Interval/Ratio	Head Teacher's Form: • Section IV	
(b) How is children's overall self-regulation behavior at home related to both parents' interactions with head teachers and their involvements in children's behavior?	Independent Variables • Parents' interactions with head teachers and children	Nominal Interval/Ratio	Parent's Form: • Section II & III • Except Section III, Question 9 & 10	
	Dependent Variables: • Children's overall self-regulation behavior at home	Interval/Ratio	Parent's Form: • Section IV	

Chapter 4

RESEARCH RESULTS

This chapter presents the research data analysis, summarized in the following sections: (1) profiles of the participants, (2) reliability analysis, (3) student self-regulation behavior, (4) analysis of children's overall self-regulation behavior at home as influenced by parents' background, (5) analysis of children's overall self-regulation behavior at home as influenced by other factors (e.g., average time spent daily on doing homework), (6) analysis of differences between children's self-regulation behavior and their gender, (7) analysis of differences between children's self-regulation behavior in home and school settings, and (8) analysis of children's overall self-regulation behavior as affected by head teachers' and parents' interactions and involvement.

Profiles of the Participants

There were two groups of participants in this study: head teachers and parents. The sampling strategy resulted in one head teacher and 10 children from each class. A total of 50 head teachers and 481 parents participated in this study, randomly selected from 2 first-grade classes per elementary school, from 6 elementary schools per district, in 4 different school districts in Taipei City, Taiwan. This study involved one questionnaire for parents of each child, while head teachers each had to complete 10 questionnaires (one for each student, ten students per class). There were exceptions in

two schools. One school had only three first-grade head teachers, which led the principal to suggest that it would be better if the three completed all questionnaires. In this school, each head teacher answered seven questionnaires, so there were 21 questionnaires in total from that school. One of the selected head teachers at another school thought it would be too much to answer all 10 questionnaires, so the Dean of the Office of Academic Affairs suggested the researcher split 10 into five and five, so there were still 20 questionnaires in total from that school. Thus, the total number of questionnaires from 50 head teachers was 481. Of the 481 questionnaires, only 477 questionnaires were completed and returned. For the parent participants, 474 completed and returned questionnaires. However, 20 questionnaires from head teachers and 21 questionnaires from parents were invalid, each of which answers throughout the entire questionnaire was considered unreasonable by the researcher, such as all questions were responded on the same point in the Likert scale. The valid questionnaire return rates for head teachers and parents in this study were 95 % and 94.2 %, respectively. The following section provides a profile of the participants and is separated into two parts: (1) head teacher participants and (2) parent participants.

Head Teacher Participants

The questionnaire designed to collect head teacher's background information included the following areas: (1) gender, (2) age, (3) teaching seniority, (4) subjects taught in classes, (5) weekly time spent with the class, and (6) daily amount of homework. The frequencies and percentages were used to develop a profile of the head teacher participants. In addition, some categories of participants relative to age, teaching seniority,

and amount of time spent each week with the class were lower than 5 % of the total head teacher participants and were combined through recoding. The head teacher participant profile is shown in Table 4.1.

Based on the head teacher participants, all head teachers were female. Of these, 83% were between 31 and 50 years of age, with most participants aged 41–50. Most of the head teachers (91.7%) had at least five years of teaching seniority. More specifically, close to half of the head teacher participants (45.8%) had 15–25 years of teaching seniority. A look at the subjects taught in class revealed that all the head teachers taught the core subjects, Mandarin and mathematics. With regard to teaching alternative subjects, the proportion of teachers teaching Dialects was 70.8%; Health & P.E., 58.3%; Science & Technology, 77.1%; Arts & Humanities, 56.3%; Social Studies, 52.1%; and Integrative Activities (includes counseling, civics/scout training, and home economics), 97%. With regard to weekly time spent with the class, 60.4% of head teachers spent 20–25 hours/week with the class. As for amount of homework, 89% gave students 2–3 assignments daily.

Table 4.1

Profile of Head Teachers (n =48)

Variable	Frequency	Percentage (%)
Gender		
Female	48	100.0
Age (years)		
30 or under	5	10.4
31–40	17	35.4
41–50	23	47.9
51 or above	3	6.3
Teaching Seniority		
5 years or less	4	8.3
More than 5 and less than 15 years	13	27.1
More than 15 and less than 25 years	22	45.8
More than 25 years	9	18.8
Subjects Taught in Class		
Core Subjects		
Mandarin	48	100.0
Mathematics	48	100.0
Alternative Subjects		
Dialects	34	70.8
Health & P.E	28	58.3
Science & Technology	37	77.1
Arts & Humanities	27	56.3
Social Studies	25	52.1
Integrative Activities	47	97.9
Others	2	4.2
Weekly Time Spent with Class		
20 hours or less	11	22.9
More than 20 and less than 25 hours	29	60.4
More than 25 hours	8	16.7
Daily Amount of Homework		
2–3 items	43	89.6
4 items or more	5	10.4

Parent Participants

Parents' background information examined in this study included: (1) gender, (2) relationship with children, (3) age, (4) educational level, (5) primary occupation, (6) monthly household income, and (7) number of children in the family. The parent participant profile contains frequencies and percentage, shown in Table 4.2. However, some categories of parent participants relative to age, primary occupation, and number of children in the family were lower than 5% of the total participants and were combined through recoding.

Of the 453 parent participants, male participants totaled 15.2% and females were 84.8% of the sample. Most of the parent participants (98.7%) were either the father or mother of the student. Based on the age of the parents, 92% were from 31–45 years of age. More specifically, almost half of the parent participants (49%) were in the age range of 36–40. Regarding education level, most of the parent participants (96.9%) had completed at least high school/vocational high school or higher education. A total of 67% had either a junior college degree or bachelor's degree. Another 13.9% had a graduate degree or higher.

In looking at the primary occupation, about 1/3 (32.7%) of parent participants' occupations were housewives, 18.3% were government employees, 15% were management in private sector, and 21.1% were staff in private sector. For monthly household income, most parent participants fell into the range of NT 30,001–150,000 (80.2%). More specifically, the highest percentage group was NT 70,001–100,000 (21.6%). However, 6.4% of parent participants did not answer this question.

In this study, more than half of the parent participants (63.8%) had two children; 23%, one child; and 13.2%, three or more children.

Table 4.2

Profile of Parents (n=453)

Variable	Frequency	Percentage (%)
Gender		
Male	69	15.2
Female	384	84.8
Relationship with Children		
Parent	447	98.7
Other	6	1.3
Age (years)		
30 or under	10	2.2
31–35	98	21.6
36–40	222	49.0
41–45	98	21.6
46–50	19	4.2
51 or above	4	0.9
Missing	2	0.4
Education Level		
Junior high or under	14	3.1
High school/vocational high school	98	21.6
Junior college	143	31.6
University (bachelor degree)	132	29.1
Graduate school or above	63	13.9
Missing	3	0.7
Primary Occupation		
Government employee	83	18.3
Management in private sector	68	15.0
Staff in private sector	96	21.2
Labor in private sector	22	4.9
Self-employment	17	3.8
Housewife	148	32.7
Others	16	3.5
Missing	3	0.7

(*table continues*)

Table 4.2 (*continued*)

Profile of Parents (n=453)

Variable	Frequency	Percentage (%)
Monthly Household Income		
NT 30,000 or under	24	5.3
NT 30,001–50,000	82	18.1
NT 50,001–70,000	92	20.3
NT 70,001–100,000	99	21.9
NT 100,001–150,000	90	19.9
NT 150,001 or above	37	8.2
Missing	29	6.4
Number of Children		
1 child	104	23.0
2 children	289	63.8
3 children or more	60	13.2

Reliability Analysis

In statistics, reliability is the accuracy and consistency of the scores obtained from a measure. Reliability analysis indicates how well the items that reflect some construct yield similar (internally consistent) results. Cronbach's alpha was used in this study to determine the reliability (internal consistency) of the summated scores. According to Hair, Anderson, Tatham, and Black (1998), the alpha should exceed the .7 threshold to be reliable—lower than .3 indicates low reliability. Guilford and Fruchter (1973) also indicated that if Cronbach's alpha is higher than .7, this test score is highly reliable, while .35–.7 indicates that it is acceptable. There were two subscales in both the head teacher and parent questionnaire. One subscale was a general student behavior subscale, and the other was a student learning behavior subscale. In each subscale, there were four areas: self-monitoring, self-instruction, self-reinforcement, and goal setting (see Table 4.3). Based on the head teacher version of the questionnaire, the reliability of general

behavior and learning behavior were .943 and .923, which was very good. Although the reliability for self-reinforcement in both head teacher subscales was around .51, it was considered acceptable per Guilford and Fruchter (1973). Overall, the head teacher questionnaire has a Cronbach's alpha = .966.

General student behavior in the parent version of the questionnaire had a reliability of .871 and student learning behavior = .858. Overall, the parent version of the questionnaire had a high reliability of .925. The reliability of the self-reinforcement scores in both subscales was lower than .35.

Table 4.3

Reliability Statistics for Two Versions of the Questionnaire

	Head Teacher Version		Parent Version	
Subscale	Number of Items	Cronbach's Alpha	Number of Items	Cronbach's Alpha
General Behavior	20	.943	20	.871
Self-Monitoring	6	.885	6	.743
Self-Instruction	5	.858	5	.720
Self-Reinforcement	4	.507	4	.296
Goal-Setting	5	.850	5	.679
Learning Behavior	19	.923	19	.858
Self-Monitoring	5	.805	5	.683
Self-Instruction	5	.864	5	.788
Self-Reinforcement	4	.519	4	.270
Goal-Setting	5	.843	5	.755
Overall	39	.966	39	.925

Student Self-Regulation Behavior

The variables from section IV on both versions of the questionnaire were the main variables in the study since the purpose of this study was to ascertain which factors influence children's self-regulation behavior. In section IV, there were 20 questions on general self-regulation behavior and 19 questions on learning self-regulation behavior. Responses were recorded using Likert scales, so that the score for each question was based on a response scale of never=1, always=6. However, if the item was negatively worded, then the score was reversed (i.e., never=6, always=1). For this self-regulation behavior section, three variables were created—general self-regulation behavior, learning self-regulation behavior, and overall self-regulation behavior—which indicated a combination of general and learning self-regulation behavior.

Before conducting the analysis for each research question, the researcher cleaned and examined the data. Exploratory analysis examined the summated scale scores to assess whether they were normally distributed. The score was considered normal when the skewness value was within the interval (-1 ~ +1) (Tabachnick & Fidell, 2007) and the kurtosis value was less than 10 (Kline, 1998).

Based on the head teacher version of the questionnaire, general, learning and overall self-regulation behavior scores (at school) were fairly normally distributed (skewness: -1 ~ +1, kurtosis <10). In addition, the general, learning, and overall self-regulation behavior scores (at home) were also fairly normally distributed (see Table 4.4).

Table 4.4

Self-Regulation Behavior Summary Statistics

Variable by Children's Gender	Mean	Std. Deviation	Skewness	Kurtosis
General Self-Regulation at School	91.28	15.871	-.625	-.134
Male	86.89	16.201	-.379	-.459
Female	96.15	13.709	-.765	.363
Learning Self-Regulation at School	90.59	13.406	-.687	.014
Male	87.84	13.818	-.473	-.404
Female	93.67	11.879	-.736	.281
Overall Self-Regulation at School	181.87	28.700	-.647	-.133
Male	174.72	29.379	-.401	-.549
Female	189.82	25.050	-.755	.310
General Self-Regulation at Home	79.86	11.773	-.506	.564
Male	77.39	12.035	-.520	.497
Female	82.45	11.153	-.532	.702
Learning Self-Regulation at Home	80.06	11.887	-.668	.619
Male	77.38	12.356	-.556	.285
Female	82.78	10.967	-.806	1.252
Overall Self-Regulation at Home	159.92	22.541	-.614	.688
Male	154.77	23.228	-.536	.398
Female	165.23	20.943	-.750	1.327

Note 1: General self-regulation values could range from a low of 20 to a high of 120; Learning self-regulation values could range from a low of 19 to a high of 114; Overall self-regulation values could range from a low of 39 to a high of 234. Higher values reflect greater perceived frequency the child exhibits self-regulation behavior.

Note 2: Acceptable Skewness: -1 ~ +1 (Tabachnick & Fidell, 2007); Acceptable Kurtosis: <10 (Kline, 1998).

Analysis of Children's Overall Self-Regulation Behavior at Home as Influenced by Parents' Background

This section summarizes the analysis for the first research question. For the first research question, the variables were obtained from section I (questions 1, 3–6) and section III question 9 of the parent version of the questionnaire, which included gender, age, education level, primary occupation, income, and child's caregiver. The analyses contained in this section were: (1) exploratory analysis, (2) curve estimation, and (3) linear regression.

The analysis was based on the background information for the parents, whose children's self-regulation behavior was assessed by parents (see Table 4.5). The skewness values for overall self-regulation at home for each level of gender and care giver were acceptable (-1, 1) and the kurtosis values were less than 10.

For the primary occupation variable, since government employee, private manager, private staff, and housewife were the four occupations with the largest percentage of parent participants, it is important to look at each of these four occupations and compare them to the group containing the other seven occupations. Four dummy variables were created based on primary occupation: occupation-1 (0 for others, 1 for Gov. employee), occupation-2 (0 for others, 1 for private manager), occupation-3 (0 for others, 1 for private staff), and occupation-4 (0 for others, 1 for housewife). Table 4.5 shows that for each of the four variables (occupation-1 to occupation-4), the dependent variable, overall self-regulation at home, forms a fairly normal distribution (skewness: -1 ~ +1, kurtosis <10) across each level of the independent variable.

Table 4.5

Overall Self-Regulation at Home (n=428) Summarized by Parental Background Variable

Variable	Mean	Std. Deviation	Skewness	Kurtosis
Gender				
0 Male	159.71	17.333	.050	-.252
1 Female (*n*=362)	159.96	23.386	-.657	.631
Occupation 1				
0 Others	159.23	22.681	-.687	.740
1 Gov. Employee (*n*=74)	163.20	21.712	-.197	.138
Occupation 2				
0 Others	159.62	23.033	-.609	.654
1 Private Manager (*n*=66)	161.55	19.703	-.563	.624
Occupation 3				
0 Others	159.20	23.230	-.584	.606
1 Private Staff (*n*=94)	162.47	19.807	-.650	.845
Occupation 4				
0 Others	161.90	21.396	-.542	.724
1 House Wife (*n*=141)	155.89	24.294	-.634	.432
Caregiver				
0 Others	151.40	26.309	-.786	.605
1 Parents (*n*=398)	160.56	22.137	-.571	.623

Note 1: Overall self-regulation at home values could range from a low of 39 to a high of 234. Higher values reflect greater perceived frequency the child exhibits self-regulation behavior.

Note 2: Acceptable Skewness: -1 ~ +1 (Tabachnick & Fidell, 2007); Acceptable Kurtosis: <10 (Kline, 1998).

Curve estimation was used to examine whether the dependent variable and interval data independent variable had a significant linear relationship. In Appendix Q (see Table 1), the variables of age, education level, and income were continuous independent variables, and overall self-regulation behavior at home was considered the

dependent variable. According to the data, only income and overall self-regulation behavior at home had a significant linear relationship (p=.009).

Linear regression analysis was used to answer the first research question. The first research question was: "How is children's overall self-regulation behavior at home influenced by parents': (a) gender, (b) age, (c) educational level, (d) primary occupation, (e) monthly household income, and (f) child's caregiver?" The researcher examined the Durbin-Watson value in the model summary table. The Durbin-Watson provides information on whether the assumption of independent errors is tenable (Field, 2005). If the value is between 1.5 and 2.5, autocorrelation is not considered to be a problem. The researcher next examined the ANOVA table to determine if the regression model was statistically significant (F=2.266, df=9/390, p=.018). The third step was to look at the value of the R-square (R-square=.05). The purpose of the R-square is to give information on the variability in one variable, which is explained by the other variables (Field, 2005). Finally, a look at the coefficients table (Table 4.6) showed that caregiver was the only variable with a significant value (p=.027), which indicates that caregiver has a statistically significant correlation with children's overall self-regulation behavior at home; if the caregiver is parents, children tend to show higher frequency of self-regulation at home. No other parental background variables were significantly correlated with children's overall frequency of self-regulation behavior at home (see Table 4.6). Although the model was statistically significant, parental background factors collectively explained only about 5 % of the variability in frequency of self-regulation behavior being exhibited at home.

Table 4.6

Children's Overall Self-Regulation at Home Regressed on Parental Background Factors

	Unstandardized Coefficients		Standardized Coefficients		
Variable	*b*	Std. Error *b*	Beta	*t*	*Sig.*
Constant	139.944	8.196		17.076	.000
Gender 0=Male 1=Female	2.669	3.375	.043	.791	.430
Age	2.102	1.405	.078	1.497	.135
Highest Education	-1.237	1.378	-.057	-.898	.370
Occupation 1 0=Others 1= Gov. Employee	2.835	4.700	.047	.603	.547
Occupation 2 0=Others 1=Private Manager	.221	4.580	.004	.048	.962
Occupation 3 0=Others 1=Private Staff	3.020	4.084	.054	.739	.460
Occupation 4 0=Others 1= House Wife	-5.051	3.883	-.104	-1.301	.194
Income	1.772	1.017	.107	1.743	.082
Caregiver 0=Others 1=Parents	9.967	4.482	.112	2.224	.027

Model Summary: *F*=2.266
df=9/390
p=.018
R Square=.050
Adjusted *R* Square=.028

Results for separate regression analyses for male and female children appear in Appendix S (Table 1). Neither the models for boys or for girls were statistically significant.

Analysis of Children's Overall Self-Regulation Behavior at School and at Home as Influenced by Other Factors

This section summarizes the analysis of children's other background information, such as number of siblings (including the child him/herself), birth order, number of months attended preschool and/or kindergarten before going to elementary school, types of schools attended before elementary school, and average minutes spent daily on homework assignments. The data were collected from section I (questions 7, 8, 10, 11) and section III question 10 from the parent version of the questionnaire. The second research question was analyzed using these analyses: (1) exploratory analysis, (2) curve estimation, and (3) linear regression.

In Table 4.7, the variable "months attended school before elementary school" had a skewness of -.028, and kurtosis value equal to -.203, which indicates that this variable was normally distributed. For the variable "minutes spent daily on homework", it was normally distributed as well.

Table 4.7

Number of Months Attended School before Elementary School and Minutes Spent Daily on Homework

Variable	Mean	Std. Deviation	Skewness	Kurtosis
Months Attended School Before Elementary School ≦ 60 Months (*n*=433)	33.96	12.268	-.028	-.203
Minutes Spent Daily on Homework ≦ 240 Minutes (*n*=435)	78.29	45.877	.917	.581

Note: Acceptable Skewness: -1 ~ +1 (Tabachnick & Fidell, 2007); Acceptable Kurtosis: <10 (Kline, 1998)

The two types of schools children attended before elementary school were preschool and kindergarten. According to question 11 in section I of the parent version of the questionnaire, there were four choices: preschool only, kindergarten only, both (preschool and kindergarten) and neither. The choices "preschool only" and "kindergarten only" each had a relatively large percentage, so it was important to examine each of the two choices in comparison with the other three choices. Therefore, two dummy variables were developed to examine children whose self-regulation behavior was evaluated by head teachers: School Went 1 and School Went 2. School Went 1 included "preschool only" in one group and the others in the other group. As for variable School Went 2, one group included "kindergarten only" and all others were in the group "others". In Table 4.8, for the two variables—School Went 1 and School Went 2—overall self-regulation at school had a normal distribution across each level of the dummy coded variables.

In addition, this study sought to determine whether the number of children in a family and the birth order of the child were also factors that were related to children's

self-regulation behavior as reported by head teaches. Three dummy variables (Number of Children 1, Number of Children 2, and Number of Children 3) were created based on question 7 of the parent version and the other three variables (Child Birth Order 1, Child Birth Order 2, and Child Birth Order 3) were based on question 8 of the parent version. According to Table 4.8, overall self-regulation at school was normally distributed across each level of the dummy coded variables.

Table 4.8

Overall Self-Regulation at School (n=429) Summarized by Children's Background Variable

Variable	Mean	Std. Deviation	Skewness	Kurtosis
Number of Children 1				
0 Others	182.92	28.902	-.732	.023
1 One Child (*n*=96)	177.69	27.892	-.399	-.469
Number of Children 2				
0 Others	178.97	29.150	-.634	-.196
1 Two Children (*n*=279)	183.24	28.442	-.663	-.079
Number of Children 3				
0 Others	181.82	28.369	-.586	-.225
1 Three Children or More (*n*=54)	181.26	31.402	-.998	.347
Child Birth Order 1				
0 Others	184.48	27.958	-.634	-.220
1 First Child (*n*=237)	179.54	29.212	-.658	-.092
Child Birth Order 2				
0 Others	180.27	29.110	-.690	-.046
1 Second Child (*n*=159)	184.26	27.984	-.569	-.358
Child Birth Order 3				
0 Others	181.43	28.783	-.627	-.166
1 Third Child or After (*n*=33)	185.55	28.240	-.995	.777
School Went 1				
0 Others	181.10	29.324	-.631	-.204
1 Preschool (*n*=83)	183.92	26.154	-.627	.064
School Went 2				
0 Others	184.34	27.299	-.693	.186
1 Kindergarten (*n*=296)	180.43	29.321	-.610	-.267

Note 1: Overall self-regulation at school values could range from a low of 39 to a high of 234. Higher values reflect greater perceived frequency the child exhibits self-regulation behavior.

Note 2: Acceptable Skewness: -1 ~ +1 (Tabachnick & Fidell, 2007); Acceptable Kurtosis: <10 (Kline, 1998)

Parents' evaluation of the children's self-regulation behavior at home was also examined by the two variables: School Went 1 and School Went 2. School Went 1 in the parent version had the same group design as School Went 1 in the head teacher version and School Went 2 in the parent version had the same group design as School Went 2 in the head teacher version. Table 4.9 shows that overall self-regulation at home was normally distributed since skewness was (-1, 1) and kurtosis was less than 10. Moreover, there were three variables (Number of Children 1, Number of Children 2, and Number of Children 3) based on the number of children question, and three variables (Child Birth Order 1, Child Birth Order 2, and Child Birth Order 3) based on the birth order of the child. For each of these variables, overall self-regulation at home was normally distributed across each level of the independent variables.

Table 4.9

Overall Self-Regulation at Home (n=427) Summarized by Children's Background Variable

Variable	Mean	Std. Deviation	Skewness	Kurtosis
Number of Children 1				
0 Others	160.98	21.637	-.607	.969
1 One Child (*n*=97)	156.60	25.125	-.562	.015
Number of Children 2				
0 Others	158.45	23.153	-.496	.320
1 Two Children (*n*=272)	160.86	22.148	-.698	1.028
Number of Children 3				
0 Others	159.74	23.010	-.674	.688
1 Three Children or More (*n*=58)	161.55	19.224	.109	.093
Child Birth Order 1				
0 Others	164.33	21.176	-.979	2.476
1 First Child (*n*=235)	156.44	23.005	-.373	.000
Child Birth Order 2				
0 Others	157.56	22.788	-.342	.064
1 Second Child (*n*=158)	164.13	21.504	-1.184	2.872
Child Birth Order 3				
0 Others	159.53	22.702	-.662	.698
1 Third Child or After (*n*=34)	165.29	19.853	.313	-.471
School Went 1				
0 Others	158.87	22.537	-.569	.555
1 Preschool (*n*=80)	164.49	22.122	-.869	1.782
School Went 1				
0 Others	162.10	22.306	-.590	.762
1 Kindergarten (*n*=296)	158.95	22.616	-.629	.684

Note 1: Overall self-regulation at home values could range from a low of 39 to a high of 234. Higher values reflect greater perceived frequency the child exhibits self-regulation behavior.

Note 2: Acceptable Skewness: -1 ~ +1 (Tabachnick & Fidell, 2007); Acceptable Kurtosis: <10 (Kline, 1998)

Curve estimation procedures were conducted to ascertain whether the continuous dependent variable and continuous independent variable had a significant linear relationship. By treating children's overall self-regulation behavior at school as the dependent variable, the independent variables Attended Months (months attended before elementary school) and HW Time Spent Daily (average time spent daily on homework) revealed a significant linear relationship with children's overall self-regulation behavior at school since *p*-values were all less than .01 (see Table 2 in Appendix Q).

In addition, when considering children's overall self-regulation behavior at home as a dependent variable, Attended Months and HW Time Spent Daily also had a significant relationship with children's overall self-regulation behavior at home. The significant *p*-values were all less than .05 in Appendix Q (see Table 3).

The second research question was answered after conducting a linear regression analysis. First, by treating children's self-regulation behavior at school as a dependent variable, the value of Durbin-Watson in the model summary showed autocorrelation was not a problem. The ANOVA table indicated that the regression model for research question 2 was statistically significant (F=2.851, df=8/384, p=.004), and R-square was .056. Next, the researcher examined the coefficients to see whether any variable was significant. In the coefficients table, the two variables with significant *p*-values were Attended Months and HW Time Spent Daily. This showed that number of months attended schools before going to elementary school and average time spent daily on homework had a significant influence on children's self-regulation behavior at school (see Table 4.10). However, these two variables showed different directions of influence: the more months attended schools before going to elementary school, children tend to

show higher scores in self-regulation at school; the more time spent daily on homework, children tend to show lower scores in self-regulation at school.

Table 4.10

Children's Overall Self-Regulation at School Regressed on Children Background Factor

	Unstandardized Coefficients		Standardized Coefficients		
Variable	*b*	Std. Error *b*	Beta	*t*	*Sig.*
Constant	182.551	7.348		24.842	.000
Number of Children 1 0=Others 1=One Child	-4.982	3.944	-.073	-1.263	.207
Number of Children 3 0=Others 1=Three Children or More	-5.259	6.843	-.062	-.768	443
Child Birth Order 2 0=Others 1=Second Child	3.131	3.405	.053	.920	.358
Child Birth Order 3 0=Others 1=Third Child or After	8.019	8.369	.077	.958	.339
Attended Months	.321	.124	.136	2.587	.010
School Went 1 0=Others 1=Preschool	-6.215	5.331	-.086	-1.166	.244
School Went 2 0=Others 1=Kindergarten	-3.871	4.685	-.063	-.826	.409
HW Time Spent Daily	-.088	.030	-.144	-2.889	.004

Model Summary: *F*=2.851
df=8/384
p=.004
R Square=.056
Adjusted *R* Square=.036

Results for separate regression analyses for male and female children appear in Appendix S (Table 2). For children's overall self-regulation at school, only one variable (HW Time Spent Daily) was significant and negatively associated with children's overall self-regulation at school for boys. The model for girls was not statistically significant.

Next, children's overall self-regulation behavior at home was considered as a dependent variable. According to the data analysis, the Durbin-Watson value equaled 2.053 in the model summary table showing that autocorrelation was not a problem. The ANOVA table shows F=6.369, df=8/385, and p<.001, which means that the regression model was statistically significant and the R square was .117. Finally, from the coefficients table, being the second child in the family (Child Birth Order 2) and average time spent daily on homework (HW Time Spent Daily) had significant p-values, which indicate that the birth order of the child and average time spent daily on homework had a significant correlation with children's self-regulation behavior at home (see Table 4.11). However, these two variables showed different directions of influence: being the second child in the family, children tend to show higher scores in self-regulation at home; the more time spent daily on homework, children tend to show lower scores in self-regulation at home.

Table 4.11

Children's Overall Self-Regulation at Home Regressed on Children's Background Factor

	Unstandardized Coefficients		Standardized Coefficients		
Variable	*b*	Std. Error *b*	Beta	*t*	*Sig.*
Constant	161.030	5.635		28.577	.000
Number of Children 1 0=Others 1=One Child	.121	2.991	.002	.041	.968
Number of Children 3 0=Others 1=Three Children or More	-1.505	4.724	-.024	-.318	.750
Child Birth Order 2 0=Others 1=Second Child	7.302	2.575	.160	2.836	.005
Child Birth Order 3 0=Others 1=Third Child or After	10.169	5.948	.127	1.710	.088
Attended Months	.130	.094	.070	1.382	.168
School Went 1 0=Others 1=Preschool	4.054	4.058	.071	.999	.318
School Went 2 0=Others 1=Kindergarten	1.697	3.534	.035	.480	.631
HW Time Spent Daily	-.134	.023	-.278	-5.742	<.001

Model Summary: *F*=6.369
df=8/385
p<.001
R Square=.117
Adjusted *R* Square=.099

Results for separate regression analyses for male and female children appear in Appendix S (Table 3). For children's overall self-regulation at home, differences in regression results were found for male and female children (although the female model was not significant). One variable (HW Time Spent Daily) was significant and negatively associated with children's overall self-regulation at home for boys, and being the second child (Child Birth Order 2) was significant.

In sum, only one variable—HW Time Spent Daily (average time spent daily on homework)—was negatively correlated with children's overall self-regulation behavior in both home and school settings, which means that children's self-regulation behavior was influenced by average time spent daily on homework; the more hours children spent daily on homework was related to lower children self-regulation values.

Analysis of Difference between Children's Self-Regulation Behavior (General, Learning, and Overall) and Their Gender

In this section, the third research question is addressed. The data analysis for this research question was based on the scores for children's self-regulation (section IV in both the head teacher and parent versions of the questionnaire). The results presented include bivariate correlation and ANOVA analysis information.

Bivariate Correlations

In statistics, bivariate correlation is used to examine relationships between two variables. When there's a relationship, the sign of the Pearson correlation value indicates whether the relationship is positive (value >0) or negative (value <0). Table 4.12

summarizes the bivariate correlations for children's gender and their self-regulation behavior scores from the head teachers' perspective. Children's gender and children's overall self-regulation behavior at school in the head teachers' opinions (School Self-Reg) had a positive, significant relationship ($r_{pt\ bis}$=.267, p<.001). In addition, gender also had a positive significant relationship with the head teachers' opinions of children's general self-regulation behavior (School General Self-Reg $r_{pt\ bis}$=.293, p<.001) and children's learning self-regulation behavior (School Learning Self-Reg $r_{pt\ bis}$=.222, p<.001). In all three correlations, female children were perceived to have higher self-regulation values than male children.

Table 4.12

Bivariate Correlation between Gender of Child and Self-Regulation Behavior at School as Reported by Head Teachers

Correlations				
Variable		School General Self-Reg	School Learning Self-Reg	School Self-Reg
Child Gender 0=Male 1=Female	Point Biserial	.293	.222	.267
	Sig. (2-tailed)	<.001	<.001	<.001
	n	440	441	430

The bivariate correlation results for children's gender and their self-regulation behavior in parents' opinions are shown in Table 4.13. The point biserial correlation values were positive, which indicates that children's gender had a positive, significant relationship with children's overall (Home Self-Reg $r_{pt\ bis}$=.225, p<.001), general (Home General Self-Reg $r_{pt\ bis}$=.201, p<.001), and learning (Home Learning Self-Reg $r_{pt\ bis}$=.218,

p<.001) self-regulation behavior in the parents' opinion. This means being a female child was correlated positively to higher self-regulation values. However, children's overall, general, and learning self-regulation behavior in the head teachers' opinion tended to have slightly lower correlation values when comparing parents' opinions with head teachers' opinions.

Table 4.13

Bivariate Correlation between Gender of Child and Self-Regulation Behavior at Home as Reported by Parents.

Correlations				
Variable		Home General Self-Reg	Home Learning Self-Reg	Home Self-Reg
Child Gender 0=Male 1=Female	Point Biserial	.201	.218	.225
	Sig. (2-tailed)	<.001	<.001	<.001
	n	438	438	427

Descriptive Statistics

The descriptive statistics for children's (general, learning, and overall) self-regulation behavior in head teachers' opinions is shown in Table 4.14. The greater the mean score was, the greater perceived frequency the child exhibited self-regulation behavior.

Table 4.14

Descriptive Statistics for Self-Regulation at School by Gender

ANOVA Statistics				
Variable by Children's Gender	Mean	*n*	Std. Deviation	Std. Error Mean
General Self-Reg	91.18	440	15.710	.749
Male	86.74	228	16.340	1.082
Female	95.95	212	13.494	.927
Learning Self-Reg	90.56	441	13.199	.629
Male	87.71	226	13.907	.925
Female	93.55	215	11.715	.799
Overall Self-Reg	181.85	430	28.454	1.372
Male	174.47	221	29.725	2.000
Female	189.65	209	24.826	1.717

Note: General self-regulation values could range from a low of 20 to a high of 120; Learning self-regulation values could range from a low of 19 to a high of 114; Overall self-regulation values could range from a low of 39 to a high of 234. Higher values reflect greater perceived frequency the child exhibits self-regulation behavior.

The descriptive statistics for children's (general, learning, and overall) self-regulation behavior in parents' opinions is shown in Table 4.15. The greater the mean score was, the greater perceived frequency the child exhibited self-regulation behavior.

Table 4.15

Descriptive Statistics for Self-Regulation at Home by Gender

ANOVA Statistics				
Variable by Children's Gender	Mean	*n*	Std. Deviation	Std. Error Mean
General Self-Reg	80.00	438	11.740	.561
Male	77.72	227	11.901	.790
Female	82.44	211	11.082	.763
Learning Self-Reg	80.18	438	11.917	.569
Male	77.68	227	12.324	.818
Female	82.87	211	10.866	.748
Overall Self-Reg	159.95	427	22.558	1.092
Male	155.08	222	22.964	1.541
Female	165.22	205	20.918	1.461

Note: General self-regulation values could range from a low of 20 to a high of 120; Learning self-regulation values could range from a low of 19 to a high of 114; Overall self-regulation values could range from a low of 39 to a high of 234. Higher values reflect greater perceived frequency the child exhibits self-regulation behavior.

ANOVA Analysis

There were three parts to the third research question: (1) Is there a significant difference between children's general self-regulation behavior and their gender; (2) Is there a significant difference between children's learning self-regulation behavior and their gender; and (3) Is there a significant difference between children's self-regulation behavior and their gender? To answer these three questions, one-way ANOVA was used.

With regard to children's self-regulation behavior reported by head teachers, there was a significant difference between children's overall self-regulation behavior at school

and their gender (F=32.821, p<.001) (see Table 4.16). Moreover, children's general self-regulation behavior and their gender appear to differ significantly (F=41.187, p<.001), as was also the case for children's learning self-regulation behavior and their gender (F=22.676, p<.001). Table 4.4 (p. 68) summarizes the means by children's genders. In all three scores of children's self-regulation at school, the female students had significantly higher self-regulation scores when compared with male students.

Table 4.16

ANOVA Results for Differences in Children's Self-Regulation at School as Reported by Head Teachers

Self-Regulation Behavior at school by Children Gender		Sum of Squares	*df*	Mean Square	*F*	*Sig.*
School General Self-Reg	Between Groups	9312.011	1	9312.011	41.187	<.001
	Within Groups	99028.162	438	226.092		
	Total	108340.173	439			
School Learning Self-Reg	Between Groups	3764.915	1	3764.915	22.676	<.001
	Within Groups	72887.861	439	166.032		
	Total	76652.776	440			
School Self-Reg	Between Groups	24737.012	1	24737.012	32.821	<.001
	Within Groups	322582.858	428	753.698		
	Total	347319.870	429			

Table 4.17 summarizes the ANOVA results based on children's general, learning, and overall self-regulation behavior, according to the parents' opinion. The table shows significant differences in children's general self-regulation behavior (F=18.364, p<.001),

learning self-regulation behavior (F=21.677, p<.001), and overall self-regulation behavior (F=22.645, p<.001) by children's gender. Table 4.4 (p. 68) summarizes the means by children's genders. In all three scores of children's self-regulation at home, the girls had significantly higher self-regulation scores when compared to boys.

Table 4.17

ANOVA Results for Differences in Children's Self-Regulation at Home as Reported by Parents

Self-Regulation Behavior at Home by Children Gender		Sum of Squares	*df*	Mean Square	*F*	*Sig.*
Home General Self-Reg	Between Groups	2434.466	1	2434.466	18.364	<.001
	Within Groups	57799.525	436	132.568		
	Total	60233.991	437			
Home Learning Self-Reg	Between Groups	2939.304	1	2939.304	21.677	<.001
	Within Groups	59119.447	436	135.595		
	Total	62058.751	437			
Home Self-Reg	Between Groups	10965.749	1	10965.749	22.645	<.001
	Within Groups	205806.219	425	484.250		
	Total	216771.967	426			

Overall, there were significant differences in children's general, learning and overall self-regulation when examined by children's gender, according to both head teachers' and parents' opinions. In all comparisons, girls' self-regulation behaviors were perceived to be slightly and significantly higher than the self-regulation behavior of boys.

Analysis of Difference between Children's Self-Regulation Behavior (General, Learning, and Overall) in School and Home Settings

This section addresses the fourth research question. The data used came from section IV in both versions of the questionnaire. This section contains results for bivariate correlation, descriptive statistics, and independent samples *t*-test.

Bivariate Correlations

To determine whether there was a significant relationship between children's (general, learning, and overall) self-regulation behavior in head teachers' and parents' opinions, bivariate correlation analysis was used. In essence this analysis examines the relationships between self-regulation behavior at school and at home. The analysis indicated a positive significant relationship between children's general self-regulation behavior in head teachers' opinion and parents' opinion (Pearson=.428, $p<.001$). In addition, the head teachers' opinion and parents' opinion for children's learning self-regulation behavior had a positive significant relationship (Pearson=.486, $p<.001$), as well as for overall self-regulation behavior (Pearson=.483, $p<.001$).

Descriptive Statistics

The descriptive statistics for children's (general, learning, and overall) self-regulation behavior in both head teachers' and parents' opinions is shown in Table 4.18. The greater the mean score was, the greater perceived frequency the child exhibited self-regulation behavior. From the table, there was at least a ten-point difference for

children's general (General Self-Reg), learning (Learning Self-Reg), and overall (Self-Reg) self-regulation behavior in head teachers' opinion and parents' opinions.

Table 4.18

Descriptive Statistics for School and Home

Independent Samples Statistics					
School or Home Setting		Mean	*n*	Std. Deviation	Std. Error Mean
School	General Self-Reg	91.10	427	15.859	.767
Home	General Self-Reg	79.93	427	11.760	.569
School	Learning Self-Reg	90.47	428	13.332	.644
Home	Learning Self-Reg	80.11	428	11.947	.577
School	Overall Self-Reg	181.85	407	28.619	1.419
Home	Overall Self-Reg	159.81	407	22.715	1.126

Note: General self-regulation values could range from a low of 20 to a high of 120; Learning self-regulation values could range from a low of 19 to a high of 114; Overall self-regulation values could range from a low of 39 to a high of 234. Higher values reflect greater perceived frequency the child exhibits self-regulation behavior.

However, because the fourth research question was designed to determine whether there were differences in children's (general, learning, and overall) self-regulation behavior in two different settings, a *t*-test of differences in the means was conducted. An analysis of the differences reported by head teachers and parents is summarized in Table 4.19.

The *t*-test analysis was chosen to answer the fourth research question. The results indicated significant differences between children's (general, learning, overall) self-regulation behavior in the two settings: school and home. The means reported in Table

4.19 are significantly different from each other. For all three indicators of self-regulation, the values reported by head teachers were significantly higher than the values reported by parents.

Table 4.19

Analysis of Differences in Self-Regulation Scores Reported by Head Teachers and Parents

Mean Difference	95% Confidence Interval		*t*	*df*	*Sig.* (2-tailed)	Cohen *d*
	Lower	Upper				
11.171	9.728	12.614	15.217	426	<.001	.810
10.362	9.139	11.585	16.651	427	<.001	.818
22.034	19.444	24.625	16.722	406	<.001	.853

Analysis of Children's Overall Self-Regulation Behavior Correlated with Head Teachers' and Parents' Interactions and Involvement

The data for the fifth research question was based on sections II and III of both versions of the questionnaire, except for the parent version, from which questions 9 and 10 in section III were excluded. The fifth research question was designed to assess whether head teachers' and parents' interactions and involvement was related to children's self-regulation behavior. This section contains the results of three analyses: (1) exploratory analysis, (2) curve estimation, and (3) linear regression.

Based on section II of the head teacher version questionnaire, the way in which teachers contact parents (question 2) had four choices: oral, written, both oral and written, and neither. Since the percentage for neither was very low and it was important to see if the other three choices would affect children's self-regulation, three categorical variables

were created: Contact Way 1 (0 for others, 1 for Oral), Contact Way 2 (0 for others, 1 for written), and Contact Way 3 (0 for others, 1 for both). In Table 4.20, the skewness of the children's overall self-regulation at school across the levels of Contact Way 1, Contact Way 2, and Contact Way 3 were in (-1, 1) as summarized and the kurtosis values were less than 10; this indicates overall self-regulation at school was normally distributed across the levels of the dummy coded variables.

In addition, question 3 of section II in the head teacher version of the questionnaire examined how head teachers like to report information to parents about a particular child. Three categorical variables were created: Contact Content 1, Contact Content 2, and Contact Content 3 (see Table 4.20). The table shows across these three variables, children's overall self-regulation values at school were normally distributed (skewness: -1 ~ +1, kurtosis <10).

Table 4.20

Overall Self-Regulation at School (n=435) Summarized by Head Teachers' Interactions with Parents and Children

Variable	Mean	Std. Deviation	Skewness	Kurtosis
Contact Way 1				
0 Others	181.12	28.792	-.578	-.286
1 Oral (*n*=106)	184.20	28.423	-.883	.530
Contact Way 2				
0 Others	181.93	29.027	-.673	-.093
1 Written (*n*=42)	181.29	25.738	-.305	-.880
Contact Way 3				
0 Others	183.45	27.503	-.756	.215
1 Oral & Written (*n*=274)	180.94	29.390	-.587	-.284
Contact Content 1				
0 Others	181.36	29.114	-.658	-.138
1 Schoolwork (*n*=54)	185.43	25.549	-.418	-.567
Contact Content 2				
0 Others	181.90	28.522	-.624	-.094
1 Behavior (*n*=124)	181.80	29.256	-.707	-.187
Contact Content 3				
0 Others	186.35	27.493	-.723	.009
1 Schoolwork & Behavior (*n*=206)	176.89	29.253	-.571	-.248

Note 1: Overall self-regulation at school values could range from a low of 39 to a high of 234. Higher values reflect greater perceived frequency the child exhibits self-regulation behavior.

Note 2: Acceptable Skewness: -1 ~ +1 (Tabachnick & Fidell, 2007); Acceptable Kurtosis: <10 (Kline, 1998)

According to the variables created for section II in the head teacher version of the questionnaire, the variables were created in the same way as for section II of the parent version of the questionnaire. Three categorical variables were created for section II, question 2 of the parent version of the questionnaire: Contact Way 1, Contact Way 2, and

Contact Way 3. The skewness and kurtosis values for children's self-regulation across the three variables were normally distributed (see Table 4.21). For question 3, Contact Content 1, Contact Content 2, and Contact Content 3 were the three categorical variables that were created.

Table 4.21

Overall Self-Regulation at Home (n=428) Summarized by Parents' Interactions with Head Teachers and Children

Variable	Mean	Std. Deviation	Skewness	Kurtosis
Contact Way 1				
0 Others	159.95	23.054	-.591	.522
1 Oral (*n*=96)	159.79	20.784	-.733	1.552
Contact Way 2				
0 Others	159.69	22.660	-.604	.707
1 Written (*n*=47)	161.81	21.701	-.708	.677
Contact Way 3				
0 Others	160.81	20.835	-.857	1.384
1 Oral & Written (*n*=239)	159.21	23.824	-.464	.323
Contact Content 1				
0 Others	160.15	22.512	-.638	.726
1 Schoolwork (*n*=31)	156.90	23.069	-.348	.702
Contact Content 2				
0 Others	158.64	23.529	-.603	.721
1 Behavior (*n*=142)	162.49	20.245	-.529	.167
Contact Content 3				
0 Others	161.78	20.851	-.607	.627
1 Schoolwork & Behavior (*n*=202)	157.84	24.197	-.560	.590

Note 1: Overall self-regulation at home values could range from a low of 39 to a high of 234. Higher values reflect greater perceived frequency the child exhibits self-regulation behavior.

Note 2: Acceptable Skewness: -1 ~ +1 (Tabachnick & Fidell, 2007); Acceptable Kurtosis: <10 (Kline, 1998)

Curve estimation analysis was used to determine whether the interval scale dependent and interval scale independent variables had a significant linear relationship. To make this determination, a significant *p*-value must be less than .05.

The continuous independent variables were analyzed separately based on the version of the questionnaire. First, after looking at the head teacher version of the questionnaire, 9 variables were created: Contact Frequency (question 1), Participate Frequency (question 4) in Section II, and Time Help (question 1), Pay Attention (question 2), Face to Face Com. (question 3), Spend Time (question 4), Give Reward (question 5), Use Punishment (question 6), and Need to Remind (question 7) in section III.

In Appendix Q (see Table 4), the dependent variable was children's self-regulation behavior at school. In comparing 9 variables, the table indicates that most of the independent variables have a significant linear relationship with children's self-regulation behavior at school; however, Participate Frequency did not have a significant linear relationship with the dependent variable since the significance value was greater than .05.

Based on the parent version of the questionnaire, 10 variables were created for the fifth research question: Contact Frequency (question 1), Participate Frequency (question 4) in Section II, and Time Help (question 1), Pay Attention (question 2), Face to Face Com. (question 3), Set Rules (question 4), Spend Time (question 5), Give Reward (question 6), Use Punishment (question 7), and Need to Remind (question 8) in section III.

Appendix Q (see Table 5) shows the relationship between the dependent variable, children's self-regulation behavior at home, and the 10 variables created in sections II and III. It also shows that most of independent variables have a significant linear relationship with children's self-regulation behavior at home except for Contact Frequency, Set Rules, and Spend Time.

Linear regression analysis was used to answer the fifth research question, which contains two sub questions: (a) How is children's overall self-regulation behavior at school related to both head teachers' interactions with parents and their involvement in children's behavior? (b) How is children's overall self-regulation behavior at home related to both parents' interactions with head teachers and their involvement in children's behavior?

Table 4.22 summarizes head teachers' interactions with parents for sub question 1. The regression model for head teachers' interactions with parents was statistically significant (F=5.212, df=8/418, p<.001) and R square was .091. By examining the coefficients in Table 4.22, Contact Frequency, Contact Way 1, Contact Way 3, Contact Content 1, Contact Content 2, and Contact Content 3 were found to be significant $p \leqq .05$. Therefore the frequency of head teachers' contact with children's parents (Contact Frequency), oral contact (Contact Way 1) and both oral/written contact (Contact Way 3) with children's parents, and reporting school work (Contact Content 1), behavior (Contact Content 2) , and both school work/ behavior (Contact Content 3) to children's parents were found to be related to children's self-regulation behavior at school. However, these variables showed different directions of influence: the more frequent of head teachers' contact with children's parents, and use oral contact or both oral and written

contact, children tend to show higher scores in self-regulation at school; the more head teachers report school work, behavior, or both school work and behavior, children tend to show lower scores in self-regulation at school.

Table 4.22

Children's Overall Self-Regulation at School Regressed on Head Teachers' Interactions with Parents Factor

	Unstandardized Coefficients		Standardized Coefficients		
Variable	*b*	Std. Error *b*	Beta	*t*	*Sig.*
Constant	175.713	10.409		16.880	.000
Contact Frequency	2.762	.981	.151	2.815	.005
Contact Way 1 0=Others 1=Oral	18.505	9.116	.273	2.030	.043
Contact Way 2 0=Others 1=Written	16.769	9.655	.173	1.737	.083
Contact Way 3 0=Others 1=Oral & Written	20.747	9.161	.347	2.265	.024
Contact Content 1 0=Others 1=Schoolwork	-15.374	5.905	-.178	-2.604	.010
Contact Content 2 0=Others 1=Behavior	-20.047	5.178	-.314	-3.872	<.001
Contact Content 3 0=Others 1=Schoolwork & Behavior	-24.119	5.181	-.418	-4.655	<.001
Participate Frequency	-2.231	1.151	-.098	-1.939	.053

Model Summary: *F*=5.212
df=8/418
p<.001
R Square=.091
Adjusted *R* Square=.073

Results for separate regression analyses for male and female children appear in Appendix S (Table 4). For children's overall self-regulation at school, the regression model for girls was not significant (p=.107). For boys, one variable (Contact Frequency) was positively associated with self-regulation at school. Three additional variables for boys (Contact Content 2, Contact Content 3, and Participate Frequency) were negatively associated with self-regulation at school.

The information in Table 4.23 summarizes the results of the analysis based on head teachers' involvement in children's behavior in sub question 1. The regression model for head teachers' involvement in children's behavior was statistically significant (F=203.265, df=7/421, p<.001) and the R-square is equal to .772. Among the variables, Face to Face Com. and Use Punishment were not significant; whereas, the other five variables were significant at less than .05. This indicates that taking extra time to help children with their courses (Time Help), monitoring children's behavior (Pay Attention), spending more time with children (Spend Time), giving encouragement or prizes to children (Give Reward), and reminding children about certain tasks such as completing homework (Need to Remind) were related to children's self-regulation behavior at school.

However, these variables showed different directions of influence: the more encouragement or prizes that are given, children tend to show higher scores in self-regulation at school. For the other factors, the more extra time that is taken to help children with their courses, the more attention that is paid to monitor children's behavior, the more time spent with children, or the more head teachers need to remind children about certain tasks, children tend to show lower scores in self-regulation at school.

Table 4.23

Children's Overall Self-Regulation at School Regressed on Head Teachers' Interactions with Children Factor

	Unstandardized Coefficients		Standardized Coefficients		
Variable	*b*	Std. Error *b*	Beta	*t*	*Sig.*
Constant	192.782	5.816		33.145	.000
Time Help	-7.309	.770	-.310	-9.498	<.001
Pay Attention	-5.879	.833	-.291	-7.056	<.001
Face to Face Com.	1.209	.718	.044	1.684	.093
Spend Time	-1.780	.818	-.078	-2.177	.030
Give Reward	8.203	1.037	.201	7.914	<.001
Use Punishment	-.747	.952	-.028	-.785	.433
Need to Remind	-6.512	.687	-.306	-9.486	<.001

Model Summary: F=203.265
df=7/421
p<.001
R Square=.772
Adjusted R Square=.768

Results for separate regression analyses for male and female children appear in Appendix S (Table 5). For children's overall self-regulation at school, differences in regression results were found for male and female children. One variable (Give Reward) was significant and positively associated with children's overall self-regulation at school for both boys and girls. Three variables (Time Help, Pay Attention, and Need to Remind) were significant and negatively associated with children's overall self-regulation at

school for both boys and girls. For boys, an additional variable (Spend Time) was significant; for girls, an additional variable (Face to Face Com.) was significant.

There were also two parts to sub question 2: parents' interactions with head teachers and parents' involvement in children's behavior. Table 4.24 summarizes the results of the analysis for parents' interactions with head teachers. The regression model was statistically significant (F=2.879, df=8/412, p=.004) and R square equaled .053. The only variable that significant was Participate Frequency. This indicates that the frequency of attending children's school activities was the only factor that related to children's self-regulation behavior at home; the more frequently parents participated in children's school activities was related to lower children self-regulation values.

Table 4.24

Children's Overall Self-Regulation at Home Regressed on Parents' Interactions with Head Teachers Factor

	Unstandardized Coefficients		Standardized Coefficients		
Variable	*b*	Std. Error *b*	Beta	*t*	*Sig.*
Constant	163.641	6.624		24.704	.000
Contact Frequency	1.551	.794	.113	1.952	.052
Contact Way 1 0=Others 1=Oral	5.551	8.940	.102	.621	.535
Contact Way 2 0=Others 1=Written	11.661	9.375	.158	1.244	.214
Contact Way 3 0=Others 1=Oral & Written	5.633	8.581	.124	.657	.512
Contact Content 1 0=Others 1=Schoolwork	-10.716	8.928	-.122	-1.200	.231
Contact Content 2 0=Others 1=Behavior	-4.841	8.090	-.101	-.598	.550
Contact Content 3 0=Others 1=Schoolwork & Behavior	-8.107	8.074	-.179	-1.004	.316
Participate Frequency	-3.745	.931	-.202	-4.021	<.001

Model Summary: *F*=2.879
df=8/412
p=.004
R Square=.053
Adjusted *R* Square=.035

Results for separate regression analyses for male and female children appear in Appendix S (Table 6). For children's overall self-regulation at home, one variable (Contact Frequency) was significant and positively associated with children's overall self-regulation at home for boys; another variable (Participate Frequency) was significant and negatively associated with children's overall self-regulation at home for boys. The regression model for girls was not statistically significant.

The answer for the second part of sub question 2 is in Table 4.25. The regression model for parents' involvement in children's behavior was statistically significant (F=24.499, df=8/414, p<.001), and the R-square equals .321. According to the coefficients table in Table 4.25, only two variables were not significant (p>.05): Set Rules and Use Punishment. Based on the variables that were significant (p<.05), the conclusion for the second part of sub question 2 was parents that spend more time helping their children with homework or courses (Time Help), monitor children's behavior (Pay Attention), communicate with children face to face (Face to Face Com.), spend lots of time with children (Spend Time), give encouragement or prizes to children (Give Rewards), and remind children about certain tasks such as completing homework (Need to Remind), are related to children's self-regulation behavior at home.

However, these variables showed different directions of influence: the more time spent with children, the more encouragement or prizes given, or communicate with children face to face more frequently children was related to higher scores in self-regulation at home. For the other factors, the more extra time that is taken to help children with their courses, the more attention that is paid to monitor children's behavior,

or the more parents need to remind children about certain tasks was related to lower scores in self-regulation at home.

Table 4.25

Children's Overall Self-Regulation at Home Regressed on Parents' Interactions with Children Factor

	Unstandardized Coefficients		Standardized Coefficients		
Variable	*b*	Std. Error *b*	Beta	*t*	*Sig.*
Constant	161.100	8.622		18.684	.000
Time Help	-2.231	.779	-.135	-2.864	.004
Pay Attention	-2.992	.773	-.177	-3.872	<.001
Face to Face Com.	3.154	1.448	.101	2.178	.030
Set Rules	.932	1.244	.037	.749	.454
Spend Time	3.145	1.506	.101	2.088	.037
Give Reward	4.784	1.448	.167	3.305	.001
Use Punishment	-1.651	.913	-.085	-1.809	.071
Need to Remind	-6.403	.878	-.337	-7.297	<.001

Model Summary: *F*=24.499
df=8/414
p<.001
R Square=.321
Adjusted *R* Square=.308

Results for separate regression analyses for male and female children appear in Appendix S (Table 7). For children's overall self-regulation at home, differences in regression results were found for male and female children. One variable (Need to Remind) was significant and negatively associated with children's overall self-regulation

at home for both boys and girls. For boys, three additional variables (Time Help, Pay Attention, and Face to Face Com.) were significant; for girls, an additional variable (Give Reward) was significant.

Summary

In this chapter, the researcher explained the results for the five research questions using exploratory analysis, curve estimation, bivariate correlation, one-way ANOVA, independent samples *t*-test, and linear regression analysis. The results are summarized as follows.

According to the first research question, a parent as their children's caregivers was the only factor to correlate with children's self-regulation behavior. Other parental background information, such as primary occupation, education level, and income, had no significant influence on children's self-regulation behavior frequency.

In the second research question, the researcher found that children's overall self-regulation behavior at school was related to number of months attended preschool and/or kindergarten before entering elementary school and average time spent daily on homework. In addition, children's overall self-regulation behavior at home was associated with being the second child in the family and the average time spent daily on their homework. Based on the findings, the researcher concluded that children's self-regulation behavior was most correlated by average time spent daily on homework assignments.

The third research question sought to determine whether a significant difference exists between children's gender, and their general, learning, and overall self-regulation

behavior. The researcher found a significant difference between children's gender and their general, learning, and overall self-regulation behavior.

In comparing results for general, learning, and overall self-regulation behavior as assessed by head teachers and parents, children's general, learning and overall self-regulation behavior scores at school were 10 points above their scores at home. Moreover, based on the fourth research question, the researcher found significant differences in children's general, learning, and overall self-regulation behavior between home and school settings. This indicates that children tend to show self-regulation behavior more frequently at school than at home.

Last, the researcher was interested to learn whether head teachers' and parents' interactions and involvement would affect children's overall self-regulation behavior. According to the head teachers' responses regarding interaction with children's parents, the frequency of head teachers' contact with children's parents, especially oral contact, through reports about children's school work and behavior related to children's overall self-regulation behavior at school. With regard to head teachers' involvement in children's behavior, the study found that taking extra time to help children with their courses, monitoring children's behavior, spending a lot of time with children, giving encouragement or prizes to children, and reminding children about certain tasks such as completing homework had significant effects on children's overall self-regulation behavior at school.

With regard to parents' interactions with head teachers, the only association with children's overall self-regulation at home was the frequency of parents' attendance of children's school activities. For parents' involvement in children's behavior, the

researcher found that making time to help children with homework or courses, monitoring children's behavior, communicating with children face to face, spending lots of time with children, giving encouragement or prizes to children, and reminding children about certain tasks such as completing homework related to children's overall self-regulation behavior at home. Therefore, according to responses by both head teachers and parents, monitoring children's behavior, spending lots of time with children, giving encouragement or prizes to children, and reminding children about certain tasks such as completing homework were the main effects on children's overall self-regulation behavior at home.

Chapter 5

CONCLUSION

The purpose of this chapter is to discuss the findings from the research results, the theoretical implications of this study's findings, and offer recommendations for further research. This chapter is organized as follows: (1) overview of the research, (2) discussion of findings and theoretical implications, and (3) recommendations for further research.

Purposes of the Study and Research Questions

The purpose of this research study was to gain an understanding of the factors that influence children's self-regulation behavior at school and at home, and attention was also paid to the effects of head teachers' and parents' interacted attitudes and involvements toward children's self-regulation behavior. There were five research questions:

1. How is children's overall self-regulation behavior at home influenced by parents': (a) gender, (b) age, (c) educational level, (d) primary occupation, (e) monthly household income, and (f) child's caregiver?
2. How is children's overall self-regulation behavior influenced by other factors when examined by: (a) number of siblings, (b) birth order, (c) months attended school

before going to first grade, (d) types of school attended before going to first grade, and (e) average time spent daily on homework assignments?

3. Is there a significant difference between children's (general, learning, and overall) self-regulation behavior and their gender?
4. Is there a significant difference between children's (general, learning, and overall) self-regulation behavior in school setting and home setting?
5. (a) How is children's overall self-regulation behavior at school related to both head teachers' interactions with parents and their involvements in children's behavior? (b) How is children's overall self-regulation behavior at home related to both parents' interactions with head teachers and their involvements in children's behavior?

The methods used to analyze these data included exploratory analysis, curve estimation, bivariate correlations, one-way ANOVA, independent sample t-test, and linear regression. Further details of findings and theoretical implications are provided in the next section.

Discussion of Findings and Theoretical Implications

This section contains a summary of findings and the theoretical implications of those results. The discussion is presented according to the five research questions in this study.

Research Question One

How is children's overall self-regulation behavior at home influenced by parents': (a) gender, (b) age, (c) educational level, (d) primary occupation, (e) monthly household income, and (f) child's caregiver?

Results showed that the child's caregiver had a significant influence on the child's overall self-regulation behavior at home. In addition, parents as a child's caregiver had a greater influence compared to other caregivers. According to Gestwicki (2004), one of the parents' roles is nurturer—in fact, it is the primary role. To nurture a child means to be caring, encouraging, supporting, and nourishing. Moreover, being a nurturer provides the optimum opportunity to influence a child's development. According to Maccoby (1992), children first learn how to self-regulate by observing the self-regulatory skills of their caregivers. In addition, Denham, Renwick-DeBardi, and Hewes (1994) hypothesized that by watching caregivers, even very young children can learn how to appropriately regulate emotions and make early attempts at doing so. Therefore, being a child's caregiver has a significant influence on his/her overall self-regulation behavior.

However, no significant influences were found for gender, age, educational level, primary occupation, and monthly household income. This result was not anticipated by the researcher. Chen (1990) stated that one of the influences is the family's financial condition, which cannot be controlled by students. Thus, socioeconomic status is expected to be an important factor that influences students' education in school. The reason for the lack of significance of this factor in this study may be the geographic location of the study—Taipei City has a higher socioeconomic status compared to other cities in Taiwan.

Research Question Two

How is children's overall self-regulation behavior influenced by other factors when examined by: (a) number of siblings they have, (b) the birth order they are in, (c) the months attended school before going to elementary school, (d) types of school they attend before elementary school, and (e) average time spent daily on homework assignments?

According to the results, number of months attended school before going to elementary school and average time spent daily on homework assignments had significant influences on children's overall self-regulation behavior at school. In addition, the more months of school attendance before going to elementary school, the higher the children's overall self-regulation behavior was. Kopp (1982) reported that children began to develop self-regulation as early as preschool. Moreover, Olson, Bates, and Bayles (1990) found that the cognitive process affects the development of self-regulatory behavior. This indicates the relevance of the finding and its significant influence on children's overall self-regulation behavior. However, no significant difference was found among different types of schools attended before going to elementary school.

With regard to children's self-regulation at home, there was a connection between being the second child in the family and average time spent daily on homework assignments. Parke (1994) proposed that some development of self-regulation is gained indirectly through the course of interaction between a child and siblings. However, the result showed that number of siblings does not have a significant influence on children's self-regulation behavior, but being the second child had a positive influence, which

indicates that children who are the second child had higher scores on overall self-regulation behavior.

In sum, children's overall self-regulation behavior at school and at home both were significantly influenced by average time spent daily on homework assignments. Moreover, the less time spent daily by children on homework assignments, the more frequent the children's overall self-regulation behavior showed. This result was expected since homework assignments are quite easy and short, so they should not take too much time to finish. If too much time is spent daily on homework assignments, the child may not be fully concentrating.

Research Question Three

Is there a significant difference between children's (general, learning, and overall) self-regulation behavior and their gender?

The results indicate a significant difference between children's (general, learning, and overall) self-regulation behavior and their gender. In addition, gender has often been identified as a factor, which affects the ability to self-regulate (Baumeister & Vohs, 2004).

The results also showed that the scores for girls' general, learning, and overall self-regulation behavior were perceived to be slightly significantly higher than the scores for boys' general, learning, and overall self-regulation behavior. This finding is similar to that reported in other past research. Some studies have shown that girls exhibit more self-regulated compliance to adults (Feldman & Klein, 2003; Kochanska, Tjebkes, & Forman, 1998) and better effortful control (Kochanska, Murray, & Coy, 1997; Kochanska, Murray, & Harlan, 2000) than boys do. In the preschool and beyond, the evidence of differences

in self-regulatory abilities for different genders are in the higher prevalence of externalizing behavior by boys, and decreased impulsivity among girls (Zahn-Waxler, Schmitz, Fulker, Robinson, & Emde, 1996). Thus, in the continuity boys' physical aggression in overtime and girls' greater social competence seems to indicate that girls show self-regulation behavior more frequently than do boys in early childhood.

Research Question Four

Is there a significant difference between children's (general, learning, and overall) self-regulation behavior in school setting and home setting?

The results showed a significant difference between children's (general, learning, and overall) self-regulation behavior in the school and home settings. In addition, children's general, learning, and overall self-regulation behavior at school is shown more frequently than their general, learning, and overall self-regulation behavior at home. The researcher expected a significant difference, similar to findings in other research.

According to Double Cast (n.d.), children tend to show self-regulation behavior more frequently at school because they, just like adults, care about what other people think of them; moreover, children tend to like teachers to applaud and reward them, and to enjoy good friendships with other children. This ensures that a child will be regarded by a teacher as a "clever, obedience, caring child". However, when children return home, they tend to attract parents' attention by acting childish—for example, if there is work that may be done alone, they want their parents to join them, or they refuse to do it. Parents may feel that their children's self-regulation behavior is not well developed. Therefore, when parents go to school and ask teachers about their children's self-

regulation behavior, the teachers' reports may indicate to the parents that their children's self-regulation behavior is quite different at school and at home.

Research Question Five

(a) How is children's overall self-regulation behavior at school related to both head teachers' interactions with parents and their involvements in children's behavior?

(b) How is children's overall self-regulation behavior at home related to both parents' interactions with head teachers and their involvements in children's behavior?

Based on question (a), the result indicates that frequency of teacher contact with children's parents, whether oral or both oral and written contact, via reporting children's school work and behavior at school affects children's overall self-regulation behavior at school. According to Gestwicki (2004), teachers view parents as teacher's helpers who understand children's characteristics, and guide, educate, and support them in reaching common goals. This indicates that by working together, teachers and parents are able to help children to improve their overall self-regulation behavior at school.

According to Schunk (2004), due to the importance of self-regulation to children's academic performance and social competence, many strategies have been developed to provide teachers with a way to guide children in gaining self-regulation abilities. In this study, with regard to the involvement of head teachers, taking extra time to help children with their course, monitoring children's behavior, spending a lot of time with children, giving encouragement or prizes to children, and reminding children of certain tasks such as completing homework had significant influences on children's overall self-regulation behavior at school.

The results for question (b) showed that the frequency of parents' attendance of children's school activities is the only factor influencing children's overall self-regulation at home. As shown by Rossi (2001), parents involved in children's school activities are quite important, which is a way to learn what has changed in their children's education.

With regard to the results for parents' involvement in children's behavior, taking a lot of time to help children with homework or courses, monitoring children's behavior, communicating with children face to face, spending lots of time with children, giving encouragement or prizes to children, and reminding children of certain tasks such as completing homework influenced children's overall self-regulation behavior at home. This result is similar to that found in other research, which indicates that parent participation in children's education is associated with children's social and emotional development (Gettinger & Guetschow, 1998). In addition, based on Feuerstein (2000), parents' involvement improves children's attitudes towards school, homework habits, attendance of school, and academic achievement; the Harvard Family Research Project (2006) indicated that with parents' involvement, children tend to demonstrate more self-regulation behavior than the children whose parents do not provide supportive and involved relationships.

In sum, according to both versions, monitoring children's behavior, spending lots of time with children, giving encouragement or prizes to children, and reminding children of certain tasks such as completing homework are the main effects on children's self-regulation behavior.

Recommendations for Further Research

There are four recommendations for further research based on this study. They are described below.

First, due to the funding limitations, the samples for this research study were first-grade children's parents and teachers in elementary schools in four school districts in Taipei City only. The results can only generalized to the Taipei City area, which means that they may not be generalized broadly to all other areas in Taiwan. In addition, based on results for research question 1, parents' background information had no significant influence on children's self-regulation behavior. This may be due to the geographic location of the study—Taipei City, which is the capital of Taiwan and has a higher socioeconomic status than other cities in Taiwan. Therefore, to gain a deeper and better understanding of the influences and effects of children's self-regulation behavior, similar studies may be required for other cities in Taiwan.

Second, due to the time available to conduct the study, the researcher only examined children's general, learning, and overall self-regulation behavior. It is quite important to take a deeper look at the four main areas of self-regulation behavior according to behavioral theories: self-monitoring, self-instruction, self-reinforcement, and goal setting. To gain this better look, questions in section IV should be expanded. In addition, the reliability of the questions regarding self-reinforcement is acceptable but not good; changes in the way in which these questions are asked is required in further studies.

Third, due to the available time and funding for this study, the researcher only used a questionnaire to examine children's self-regulation behavior. Therefore, to gain a better and deeper look for further research, interviews with teachers and parents may be a

good addition. This new information may assist researchers in collecting more knowledge of teachers' and parents' views of children's self-regulation behavior. In addition, observations of children can be added to the study. Based on Gay, Mills, and Airasian (2009), the point of observation is to understand the natural environment as lived by the participants, without altering or manipulating it. Observing children in order to gain insight into their self-regulation behavior may lead to more accurate and better results.

Fourth, due to the time length of the study, the researcher did not include two reliabilities. In further studies on this topic, researchers could check the inter-rater and intra-rater reliability to have a better understanding of this area. Since one teacher and one parent each completed a questionnaire on the same child, the researcher can check to determine whether the teacher and the parent have the same standard of evaluation of the children's self-regulation behavior, so that the questionnaire can be more accurate, which is connected to inter-rater reliability. Moreover, researchers can ascertain whether teachers have the same standard of evaluation of children's self-regulation behavior for all children selected for study, which also is connected to intra-rater reliability.

Summary

In conclusion, the purpose of this study was to gain a better understanding of children's self-regulation behavior at school and at home, and the effects of children's self-regulation behavior based on parents' background, teachers' and parents' interaction and their involvement in and influence on children's behavior. The main findings were as follows: children's self-regulation behavior is influenced by the child's caregiver, especially if the caregiver is the parent of the child; attending preschool/kindergarten

helps children to improve their self-regulation behavior when they attend elementary school later on; girls tend to have higher self-regulation behavior compared to boys; children's self-regulation behavior tends to show self-regulation behavior more frequently at school than at home; the more contact there is between teachers and children's parents, the more frequent the children's self-regulation behavior will show; and the more often that parents attend school activities, the more frequent the children's self-regulation will show. Finally, the researcher provided four recommendations for further research based on this study. Due to limitations in time and funding, there were further and deeper studies that could not be done. These recommendations, which are based in large part on these unaccomplished studies, may help further research on this area to enjoy deeper, more accurate, and more generalized results on children's self-regulation behavior.

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Appendix A

Cover Letter (English Version for Principals)

Nov. 18, 2009

Dear Principals:

I am a graduate student in the department of Curriculum and Instruction at Pennsylvania State University and I am currently working on my doctoral dissertation research study. The purpose of this research study is to have a better understanding of the factors that influence children's self-regulation behavior, and get a better understanding of the importance of teachers' and parents' involvement in children's self-regulation behavior.

It may take head teachers and parents 15 minutes to complete each questionnaire. The questionnaire is being conducted for this research study only. The questionnaire is divided into four parts. The first part is the basic background information. And for this part, head teachers will only need to fill out once. The second part is head teachers' and parents' interaction between each other. The third part is head teachers' and parents' interaction with children. The fourth part is head teachers' and parents' understanding of children's behavior. In most questions, head teachers and parents are required to place check marks by the items that best reflect their opinions. They will only need to answer the questions based on their own perceptions and judgments; there is no right or wrong answer.

Throughout the study, head teachers' and parents' participation is voluntary. They can stop at any time and they do not have to answer any questions that they do not want to answer. In addition, their responses to questionnaires will remain confidential and will be used for research study only. The head teachers' information will not be shared with the parents and the parents' information will not be shared with the head teachers.

Head teachers and parents will be asked to seal complete questionnaires in the enclosed envelope and I will collect head teachers' and parents' envelopes from the Office of Academic Affairs on December 12th.

If you have any questions, please feel free to call me at 02-2737-4057 or 0928-808-070 or E-mail me at sxh359@psu.edu.

Thank you for your permission!

Sincerely,

Shou-Chi Huang, Ph.D. Candidate
Department of Curriculum and Instruction
Pennsylvania State University

Appendix B

Cover Letter (Chinese Version for Principals)

給校長的一封信

敬愛的校長：您好！

我是美國賓州州立大學課程與教學系博士班的研究生，目前正在進行博士論文研究工作。這個研究的主要目的，是在針對影響兒童自律行為的因素作較深入的探討，同時更將進一步瞭解教師與家長參與的重要性。

每份問卷將花費兒童的導師與家長大約 15 分鐘填寫，而這些問卷也將只用於此論文研究。每份問卷分為四大部分：第一部分是基本資料，導師在這部分只需要填寫一次；第二部分是導師與家長之間的互動關係；第三部分是導師與家長跟學生之間的互動關係；第四部分是導師與家長對於兒童行為的瞭解。大部分的問卷題目，導師與家長只需要勾選出最適合他們自己想法的選項。這些問卷的答案沒有所謂的對或錯，他們完全可以依據自己的看法填答。

這項研究的對象是透過抽樣方式產生的，而導師與家長將是自願性的參與這項研究，所以他們可以在任何時候終止對於此項研究的參與，也可以選擇不回答任何他們不想回答的問題。此外，每份問卷均保有其私密性，任何填答的資料將僅作為學術研究之用，絕對不會對外公開。導師的資料將不會流出給家長，家長的資料也不會流出給導師。

導師與家長完成的每份問卷，將請求先予以彌封並放入所提供的信封袋之內，我會在 12 月 12 日回收導師與家長的彌封信封袋。

如果有任何疑問，請與我聯絡：
電　話：02-2737-4057
手　機：0928-808-070
電子郵件：sxh359@psu.edu

感謝您的支持！　敬祝

業祺

美國賓州州立大學課程與教學系
博士候選人：黃秀琦 敬上
中華民國九十七年十一月十八日

Appendix C

Cover Letter (English Version for Head Teachers)

Nov. 18, 2009

Dear Teachers:

I am a graduate student in the department of Curriculum and Instruction at Pennsylvania State University and I am currently working on my doctoral dissertation research study. The purpose of this research study is to have a better understanding of the factors that influence children's self-regulation behavior, and get a better understanding of the importance of teachers' and parents' involvement in children's self-regulation behavior.

It may take you 15 minutes to complete each questionnaire. The questionnaire is being conducted for this research study only. The questionnaire is divided into four parts. The first part is the basic background information, and for this part, you will only need to fill out once. The second part is your interaction with parents. The third part is your interaction with students. The fourth part is your understanding of students' behavior. In most questions, you are required to place check marks by the items that best reflect you and your opinion. You only need to answer the questions based on your own perception and judgment; there is no right or wrong answer.

Throughout the study, your participation is voluntary, but you must be 18 years of age or older to take part in this research study. You can stop at any time and you do not have to answer any questions that you do not want to answer. In addition, your response to this questionnaire will remain confidential and will be used for research study only. Your information will not be shared with the parents and the parents' information will not be shared with you.

To show appreciation for your help, a small thank-you gift will be provided. You are asked to seal complete questionnaires in the enclosed envelope and I will collect the envelopes from the Office of Academic Affairs on December 12th.

If you have any questions, please feel free to call me at 02-2737-4057 or 0928-808-070 or E-mail me at sxh359@psu.edu.

Thank you for your help!

Sincerely,

Shou-Chi Huang, Ph.D. Candidate
Department of Curriculum and Instruction
Pennsylvania State University

Appendix D

Cover Letter (Chinese Version for Head Teachers)

給教師的一封信

敬愛的老師：您好！

我是美國賓州州立大學課程與教學系博士班的研究生，目前正在進行博士論文研究工作。這個研究的主要目的，是在針對影響兒童自律行為的因素作較深入的探討，同時更將進一步瞭解教師與家長參與的重要性。

每份問卷將花費您大約 15 分鐘填寫，而這些問卷也將只用於此論文研究。每份問卷分為四大部分：第一部分是基本資料，這一部分您將只需要填寫一次；第二部分是您與學生家長之間的互動關係；第三部分是您與學生之間的互動關係；第四部分是您對於學生行為的瞭解。大部分的問卷題目，您只需要勾選出最適合您自己想法的選項。這些問卷的答案沒有所謂的對或錯，您可以完全依據自己的看法填答。

這項研究的參與是採自願性的方式，而調查對象是透過抽樣方式產生的，您必須年滿 18 歲以上才能參與這項研究。您可以在任何時候終止對於此項研究的參與，也可以選擇不回答任何您不想回答的問題。此外，每份問卷均保有其私密性，任何填答的資料將僅作為學術研究之用，絕對不會對外公開，請安心填答。您的資料將不會流出給家長，您也不會拿到家長的資料。

為了感謝您的協助，研究者將會提供一個小小的禮物聊表心意。請您在完成所有的問卷之後將問卷彌封於信封袋之內，我會在 12 月 12 日回收您的彌封信封袋。

如果有任何疑問，請與我聯絡：
電　話：02-2737-4057
手　機：0928-808-070
電子郵件：sxh359@psu.edu

感謝您的支持與協助！　敬祝

教安

美國賓州州立大學課程與教學系
博士候選人：黃秀琦 敬上
中華民國九十七年十一月十八日

Appendix E

Cover Letter (English Version for Parents)

Nov. 18, 2009

Dear Parents:

I am a graduate student in the department of Curriculum and Instruction at Pennsylvania State University and I am currently working on my doctoral dissertation research study. The purpose of this research study is to have a better understanding of the factors that influence children's self-regulation behavior, and get a better understanding of the importance of teachers' and parents' involvement in children's self-regulation behavior.

It may take you 15 minutes to complete this questionnaire. The questionnaire is being conducted for this research study only. The questionnaire is divided into four parts. The first part is the basic background information. The second part is your interaction with the head teacher. The third part is your interaction with your child. The fourth part is your understanding of your child's behavior. In most questions, you are required to place check marks by the items that best reflect you and your opinion. You only need to answer the questions based on your own perception and judgment; there is no right or wrong answer.

Throughout the study, your participation is voluntary, but you must be 18 years of age or older to take part in research study. You can stop at any time and you do not have to answer any questions that you do not want to answer. In addition, your response to this questionnaire will remain confidential and will be used for this research study only. Your information will not be shared with the teachers and the teachers' information will not be shared with you.

To show appreciation for your help, a small thank-you gift is enclosed in the package. You are asked to seal complete questionnaires in the enclosed envelope and I will collect the envelopes from the Office of Academic Affairs on December 5th.

If you have any questions, please feel free to call me at 02-2737-4057 or 0928-808-070 or E-mail me at sxh359@psu.edu.

Thanks again for your help!

Sincerely,
Shou-Chi Huang, Ph.D. Candidate
Department of Curriculum and Instruction
Pennsylvania State University

Appendix F

Cover Letter (Chinese Version for Parents)

給家長的一封信

親愛的家長：您好！

我是美國賓州州立大學課程與教學系博士班的研究生，目前正在進行博士論文研究工作。這個研究的主要目的，是在針對影響兒童自律行為的因素作較深入的探討，同時更將進一步瞭解教師與家長參與的重要性。

這份問卷將花費您大約 15 分鐘填寫，而這些問卷也只用於此論文研究。這份問卷分為四大部分：第一部分是基本資料；第二部分是您與您孩子導師之間的互動關係；第三部分是您與您孩子之間的互動關係；第四部分是您對於您孩子行為的瞭解。大部分的問卷題目，您只需要勾選出最適合您自己想法的選項。這份問卷的答案沒有所謂的對或錯，您可以完全依據自己的看法填答。

這項研究的參與是採自願性的方式，而調查對象是透過抽樣方式產生的，您必須年滿 18 歲以上才能參與這項研究。您可以在任何時候終止對於此項研究的參與，也可以選擇不回答任何您不想回答的問題。另外，這份問卷保有其私密性，任何填答的資料將僅作為學術研究之用，絕對不會對外公開，請安心填答。您的資料將不會流出給導師，您也不會拿到導師的資料。

請您在完成問卷之後將問卷彌封於信封袋之內，我會在 12 月 5 日回收您的彌封信封袋。

如果有任何疑問，請與我聯絡：
電　話：02-2737-4057
手　機：0928-808-070
電子郵件：sxh359@psu.edu

感謝您的支持與協助！　敬祝

闔家平安

美國賓州州立大學課程與教學系
博士候選人：黃秀琦 敬上
中華民國九十七年十一月十八日

Appendix G

Permission Letter of the Principal (English Version)

I am clear about that Shou-Chi Huang, a Ph.D. candidate of the Pennsylvania State University, is doing a research study in this school about "Children's Behavioral and Learning Self-Regulation". In this study, head teachers will agree to fill out questionnaires designed by the researcher. Responses to questionnaires will be used for research study only.

I give my permission and support to the researcher to do the research in this school.

_____

Affiliation

_____

Title

_____

Name/Signature

_____

Date

Appendix H

Permission Letter of the Principal (Chinese Version)

校長同意書

本人清楚瞭解美國賓州州立大學課程與教學系博士班的研究生黃秀琦，將會在本校進行「兒童自律行為的表現與學習」之博士論文研究工作。在這一項研究中，導師們將會同意填寫研究者所設計的問卷，而任何填答的資料將僅作為學術研究之用。

本人同意此研究者在本校進行其研究，並給予支持與協助。

學校

_____

職稱

_____

簽名

_____

日期

_____

Appendix I

Informed Consent Form for Social Science Research (English Version for Head Teachers)
The Pennsylvania State University

Title of Project: Children's Behavioral and Learning Self-Regulation in Transition Period: A Study of First Grade Students in Taiwan

Principal Investigator: Shou-Chi Huang, Graduate Student
265 Blue Course Dr. Apt. 3C
State College, PA 16803 (U.S.A.)
1-814-441-5102 (U.S.A.)
011-886-2-2738-3495 (Taiwan)
sxh359@psu.edu

Advisor: Dr. Thomas D. Yawkey
204 Chambers Building
University Park, PA 16802 (U.S.A.)
(814) 863-1292 (U.S.A.)
tdy1@psu.edu

1. **Purpose of the Study:** The purpose of this research study is to have a better understanding of the factors that influence children's self-regulation behavior, and get a better understanding of the importance of teachers' and parents' involvement in children's self-regulation behavior.

2. **Procedures to be followed:** You will be asked to answer the following sections in each survey: (1) background information, (2) interaction between you and parents, (3) interaction between you and students, and (4) your understanding of students' behavior. But for the background information, you will only need to answer once. Besides, you are given permission by the parents to answer the last two sections based on their children's behavior at school.

3. **Duration:** It will take about 15 minutes to complete each survey.

4. **Statement of Confidentiality:** Each survey is signed a serial number and students' school ID numbers are asked, but only the principal investigator and the principal investigator's advisor are able to link the responses to these numbers. Your participation in this research is confidential and is used in research study only.

5. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time and you do not have to answer any questions that you do not want to answer.

6. **Payment for participation:** There is stationery as a thank you gift for every participant.

7. **Right to Ask Questions:** Please contact the principal investigator, Shou-Chi Huang, at 02-22737-4057 or 0928-808-070 or via E-mail at sxh359@psu.edu with questions or concerns about this study.

You must be 18 years of age or older to take part in this research study.

Two copies of the consent document are included. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below. Please keep one for your records and return the other (signed) consent with your questionnaire. Once the sealed envelope is received, the consent document will immediately be separated from the questionnaires.

_____ _____
Teacher's Signature Date

_____ _____
Person Obtaining Consent Date

Appendix J

Informed Consent Form for Social Science Research
教師同意書(Chinese Version for Head Teachers)

研究標題： 兒童在銜接教育階段自律行為的表現與學習

主要研究者： 黃秀琦
美國賓州州立大學，課程與教學系博士班研究生
地址：265 Blue Course Dr. Apt. 3C
State College, PA 16803（美國）
電話：1-814-441-5102（美國）
011-886-928-808-070（台灣）
電子郵件：sxh359@psu.edu

指導教授： Dr. Thomas D. Yawkey
美國賓州州立大學，課程與教學系教授
地址：204 Chambers Building
University Park, PA 16802（美國）
電話：(814) 863-1292（美國）
電子郵件：tdy1@psu.edu

1. **研究目的：**探討影響兒童自律行為的因素，同時瞭解教師與家長參與的重要性。

2. **進行步驟：**每份問卷分為四大部分：第一部分為基本資料；第二部分為您與學生家長之間的互動關係；第三部分為您與學生之間的互動關係；第四部分為您對於學生行為的瞭解。您將會需要依序回答問卷中此四大部分，然而在基本資料這部分將只需要填寫一次。除此之外，您將會得到家長同意以其孩子在學校的行為進行問卷第三及第四部分的填答。

3. **使用時間：**每份問卷將花費您大約 15 分鐘填寫。

4. **私密陳述：**問卷上的問卷編號及學生座號，只有主要研究者及其指導教授有權對照各問卷與答覆，因此每份問卷均保有其私密性，任何填答的資料將僅作為學術研究之用，絕對不會對外公開。

5. **自願參與：**這項研究的參與是採自願性的，您可以於任何時候終止對於此項研究的參與，也可以選擇不回答任何您不想回答的問題。

6. **報償獎勵：**每位參與者均有一份研究者提供的小禮物。

7. **發問權利：**如果對此項研究有任何疑問，請聯絡主要研究者。
姓名：黃秀琦；電話：02-2737-4057；手機：0928-808-070；電子郵件：sxh359@psu.edu。

您必須年滿 18 歲以上才能參與這項研究。

本同意書為一式兩份，若您同意參與此項研究，也同意以上所述各項，請於下列簽名並填上日期。請您自行保留一份副本留作日後參考，並將另一份同意書連同問卷一併送回。同意書與問卷於回收後，將被立即分開處理。若您不同意參與此項研究，請將兩份空白同意書連同空白問卷一併送回。

教師簽名 _____ 日期 _____

研究者簽名 _____ 日期 _____

Appendix K

Informed Consent Form for Social Science Research (English Version for Parents)
The Pennsylvania State University

Title of Project: Children's Behavioral and Learning Self-Regulation in Transition Period: A Study of First Grade Students in Taiwan

Principal Investigator: Shou-Chi Huang, Graduate Student
265 Blue Course Dr. Apt. 3C
State College, PA 16803 (U.S.A.)
1-814-441-5102 (U.S.A.)
011-886-2-2738-3495 (Taiwan)
sxh359@psu.edu

Advisor: Dr. Thomas D. Yawkey
204 Chambers Building
University Park, PA 16802 (U.S.A.)
(814) 863-1292 (U.S.A.)
tdy1@psu.edu

1. **Purpose of the Study:** The purpose of this research study is to have a better understanding of the factors that influence children's self-regulation behavior, and get a better understanding of the importance of teachers' and parents' involvement in children's self-regulation behavior.

2. **Procedures to be followed:** You will be asked to answer the following sections in the survey: (1) background information, (2) interaction between you and the head teacher, (3) interaction between you and your child, and (4) your understanding of your child's behavior. Besides, the head teacher will be asked to answer the last two sections based on your child's behavior at school.

3. **Duration:** It will take about 15 minutes to complete the survey.

4. **Statement of Confidentiality:** Each survey is signed a serial number and your child's school ID numbers is asked, but only the principal investigator and the principal investigator's advisor are able to link the responses to these numbers. Your participation in this research is confidential and is used in research study only. Your decision to participate will not impact on your child's grades or achievements.

5. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time and you do not have to answer any questions that you do not want to answer.

6. **Right to Ask Questions:** Please contact the principal investigator, Shou-Chi Huang, at 02-22737-4057 or 0928-808-070 or via E-mail at sxh359@psu.edu with questions or concerns about this study.

You must be 18 years of age or older to take part in this research study.

Two copies of the consent document are included. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below. Please keep one for your records and return the other (signed) consent with your questionnaire. Once the sealed envelope is received, the consent document will immediately be separated from the questionnaire.

_____ _____
Parent's Signature Date

_____ _____
Person Obtaining Consent Date

Appendix L

Informed Consent Form for Social Science Research

家長同意書(Chinese Version for Parents)

研究標題： 兒童在銜接教育階段自律行為的表現與學習

主要研究者： 黃秀琦
美國賓州州立大學，課程與教學系博士班研究生
地址：265 Blue Course Dr. Apt. 3C
State College, PA 16803（美國）
電話：1-814-441-5102（美國）
011-886-928-808-070（台灣）
電子郵件：sxh359@psu.edu

指導教授： Dr. Thomas D. Yawkey
美國賓州州立大學，課程與教學系教授
地址：204 Chambers Building
University Park, PA 16802（美國）
電話：(814) 863-1292（美國）
電子郵件：tdy1@psu.edu

1. **研究目的：**探討影響兒童自律行為的因素，同時瞭解教師與家長參與的重要性。

2. **進行步驟：**這份問卷分為四大部分，您將會需要依序回答問卷中此四大部分：第一部分為基本資料；第二部分為您與您孩子導師之間的互動關係；第三部分為您與您孩子之間的互動關係；第四部分為您對於您孩子行為的瞭解。除此之外，您將需要同意您孩子的導師以您孩子在學校的行為進行問卷第三及第四部分的填答。

3. **使用時間：**這份問卷將花費您大約 15 分鐘填寫。

4. **私密陳述：**問卷上的問卷編號及您孩子的座號，只有主要研究者及其指導教授有權對照各問卷與答覆，因此每份問卷均保有其私密性，任何填答的資料將僅作為學術研究之用，絕對不會對外公開。您的參與也絕對不會影響您孩子在班上的學業成績或表現。

5. **自願參與：**這項研究的參與是採自願性的，您可以於任何時候終止對於此項研究的參與，也可以選擇不回答任何您不想回答的問題。

6. **發問權利：**如果對此項研究有任何疑問，請聯絡主要研究者。
姓名：黃秀琦；電話：02-2737-4057；手機：0928-808-070；電子郵件：sxh359@psu.edu。

您必須年滿 18 歲以上才能參與這項研究。

本同意書為一式兩份，若您同意參與此項研究，也同意以上所述各項，請於下列簽名並填上日期。請您自行保留一份副本留作日後參考，並將另一份同意書連同問卷一併送回。同意書與問卷於回收後，將被立即分開處理。若您不同意參與此項研究，請將兩份空白同意書連同空白問卷一併送回。

家長簽名 _____ 日期 _____

研究者簽名 _____ 日期 _____

Serial Number：_____

Appendix M

Questionnaire
(Head Teachers_English Version)

Nov. 18, 2008

Dear Teachers,

I am a graduate student in the department of Curriculum and Instruction at Pennsylvania State University and I am currently working on my doctoral dissertation research study. The purpose of this research study is to have a better understanding of the factors that influence children's self-regulation behavior, and get a better understanding of the importance of teachers' and parents' involvement in children's self-regulation behavior.

Throughout the study, your participation is voluntary, but you must be 18 years of age or older to take part in this research study. You can stop at any time and you do not have to answer any questions that you do not want to answer. In addition, your response to this questionnaire will remain confidential and will be used for research study only.

Thank you for your help!

Sincerely,
Shou-Chi Huang, Ph.D. Candidate
Department of Curriculum and Instruction
Pennsylvania State University

Section Ⅰ: Background Information (If you have filled out once, please skip to section Ⅱ)

Directions: Choose one response or fill in an answer for each item.
*Remember to mark a "✓" in the box for the answer you choose.

1. Your gender is: ☐ Male ☐ Female

2. Your age is:
   ☐ 25 or under ☐ 26-30 ☐ 31-35
   ☐ 36-40 ☐ 41-45 ☐ 46-50
   ☐ 51-55 ☐ 56-60 ☐ 60 or above

3. Till December 2008, you have been teaching for _____ years and _____ months. (please fill in numbers)

4. Which subject(s) do you teach in this class? (choose as many as apply)
   ☐ Mandarin ☐ Dialects ☐ English
   ☐ Mathematics ☐ Health & P.E ☐ Science & Technology
   ☐ Arts & Humanities ☐ Social Studies ☐ Integrative Activities
   ☐ Others _____

5. Average hours per week to get along with students: _____ hours (please fill in numbers)

6. Average items of homework assigned to students per day:
   ☐ 0-1 ☐ 2-3 ☐ 4 and above

Section Ⅱ: Interaction between You and This Student's Parents

Directions: Choose one response or fill in an answer for each item.
*Remember to mark a "✓" in the box for the answer you choose.

1. This student's school ID number: _____ (please fill in numbers)
   (Only the principal investigator and the principal investigator's advisor are able to link the responses to the serial number on each questionnaire and the student's ID number here. Each questionnaire will remain confidential and will be used for the research study only.)

2. How often do you contact with this student's parents?
   ☐ Once a day or more ☐ 2 to 3 times a week
   ☐ Once a week ☐ Once every two weeks
   ☐ Once a month ☐ Less than once a month
   ☐ Never → If never, go to question 5

3. How do you contact this student's parents?
   ☐ Oral (e.g., Face to Face & Phone) ☐ Written (e.g., Contact Book & Email)
   ☐ Oral & Written ☐ Others _____

4. Typically when you contact the parents, what do you usually report about this student?
   ☐ Schoolwork ☐ Behavior
   ☐ Schoolwork & Behavior ☐ Others _____

5. How frequently does this student's parent attend the school's activities?
   ☐ Always ☐ Mostly ☐ Often
   ☐ Sometimes ☐ Little ☐ Never

Section Ⅲ: Interaction between You and This Student

Directions: Choose one response or filled in an answer for each item.
*Remember to mark only one "✓" in the scale for each question.
The response scale includes four options:
1 (Never True) 2 (Little True) 3 (Sometimes True)
4 (Often True) 5 (Mostly True) 6 (Always True)

For example:

	1	2	3	4	5	6
You attend class earlier than this student in the morning. If you always attend class earlier than this student in the morning, then put a "✓" in the ☐ under number 6.	☐	☐	☐	☐	☐	☑

	Never True 1	Little True 2	Sometimes True 3	Often True 4	Mostly True 5	Always True 6
1. It takes you extra time helping this student with his/her courses.	☐	☐	☐	☐	☐	☐
2. You have to monitor this student's behavior or he/she would act improperly.	☐	☐	☐	☐	☐	☐
3. You would communicate with this student face to face.	☐	☐	☐	☐	☐	☐
4. You would spend a lot of time with this student.	☐	☐	☐	☐	☐	☐
5. You would provide encouragement or prize to this student.	☐	☐	☐	☐	☐	☐
6. You would punish this student.	☐	☐	☐	☐	☐	☐
7. You would remind this student for certain tasks such as completing his/her homework or brining required items for school assignment.	☐	☐	☐	☐	☐	☐

8. Type(s) of encouragement or prize you offer to this student: (please choose one)
   ☐ None ☐ Social ☐ Substantial ☐ Both

9. Type(s) of punishment you use for this student: (please choose one)
   ☐ None ☐ Social ☐ Substantial ☐ Both

Section Ⅳ: Your Understanding of This Student's Behaviors

Directions: Choose one response for each item.

*Remember to mark only one "✓" in the scale for each question.

The response scale includes four options:

1 (Never True) 2 (Little True) 3 (Sometimes True)
4 (Often True) 5 (Mostly True) 6 (Always True)

For example:

This student brings toy(s) to school.	1	2	3	4	5	6
If this student never brings toy(s) to school,	☑	☐	☐	☐	☐	☐

then put a "✓" in the ☐ under number 1.

A. General Behavior at School:	Never True 1	Little True 2	Sometimes True 3	Often True 4	Mostly True 5	Always True 6
1. This student would act improperly or inadequately while you are not paying attention to him/her.	☐	☐	☐	☐	☐	☐
2. This student can complete his/her requested assignments successfully.	☐	☐	☐	☐	☐	☐
3. This student would sing his/her praises after his/her performance was recognized.	☐	☐	☐	☐	☐	☐
4. This student would complete what he/she has at hand before starting a new project.	☐	☐	☐	☐	☐	☐
5. This student could keep his/her personal tidiness.	☐	☐	☐	☐	☐	☐
6. This student would act prudently.	☐	☐	☐	☐	☐	☐
7. This student would excel after being praised by his/her positive performance.	☐	☐	☐	☐	☐	☐
8. This student would compare his/her performance against other classmates.	☐	☐	☐	☐	☐	☐
9. This student would drag on the assignment and fail to meet the schedule.	☐	☐	☐	☐	☐	☐
10. This student would modify his/her own behavior.	☐	☐	☐	☐	☐	☐
11. This student would feel defeated and depressed while facing obstacle.	☐	☐	☐	☐	☐	☐
12. This student would finish what he/she promised to accomplish.	☐	☐	☐	☐	☐	☐
13. This student requires your close monitoring to finish the assignment.	☐	☐	☐	☐	☐	☐
14. This student would feel helpless when encountering situation he/she does not know.	☐	☐	☐	☐	☐	☐

	Never True 1	Little True 2	Sometimes True 3	Often True 4	Mostly True 5	Always True 6
15. This student would lift him/herself up while facing frustration.	☐	☐	☐	☐	☐	☐
16. This student would finish what was expected of him/her.	☐	☐	☐	☐	☐	☐
17. This student would forget about things needed for school or tasks assignment to him/her.	☐	☐	☐	☐	☐	☐
18. This student needs instructions or steps for assignments that were assignment to him/her.	☐	☐	☐	☐	☐	☐
19. This student would set a standard for him/herself and try to meet it.	☐	☐	☐	☐	☐	☐
20. This student would pay attention to if his/her language and behavior are in compliance with the rules.	☐	☐	☐	☐	☐	☐

B. Learning Behavior at School:	Never True 1	Little True 2	Sometimes True 3	Often True 4	Mostly True 5	Always True 6
1. This student would not be able to stay focus during class or while working on class work.	☐	☐	☐	☐	☐	☐
2. This student would pursuit higher scores in his/her academic performance without your supervision.	☐	☐	☐	☐	☐	☐
3. This student would pledge him/herself to work harder when his/her academic performance is less than satisfactory.	☐	☐	☐	☐	☐	☐
4. This student would like to receive your recognition in his/her academic performance.	☐	☐	☐	☐	☐	☐
5. This student will be in class on time without being late.	☐	☐	☐	☐	☐	☐
6. This student could finish his/her class work successfully without your reminding.	☐	☐	☐	☐	☐	☐

	Never True 1	Little True 2	Sometimes True 3	Often True 4	Mostly True 5	Always True 6
7. This student would feel defeated and depressed while his/her academic performance is less than satisfactory.	☐	☐	☐	☐	☐	☐
8. This student cares about his/her academic performance while comparing with his/her classmates.	☐	☐	☐	☐	☐	☐
9. You have to sit next to this student while he/she is studying or working on his/her class work.	☐	☐	☐	☐	☐	☐
10. This student could finish his/her class work independently without additional assistance.	☐	☐	☐	☐	☐	☐
11. This student would sing his/her praises after meeting his/her academic objectives.	☐	☐	☐	☐	☐	☐
12. This student cares about his/her academic performance.	☐	☐	☐	☐	☐	☐
13. This student could hand in the class work/homework on time.	☐	☐	☐	☐	☐	☐
14. This student would be careless when taking exams.	☐	☐	☐	☐	☐	☐
15. This student would excel after meeting his/her academic objectives.	☐	☐	☐	☐	☐	☐
16. This student would like to have good academic performance.	☐	☐	☐	☐	☐	☐
17. This student would forget to do or finish his/her class work/homework.	☐	☐	☐	☐	☐	☐
18. This student would feel helpless when encountering difficulties in homework.	☐	☐	☐	☐	☐	☐
19. This student's academic performance could maintain at certain level.	☐	☐	☐	☐	☐	☐

This questionnaire has ended. Please make sure all items are filled.
Please seal it in the envelope and return to the Office of Academic Affairs.
Thank you for your participating in this study and your precious time!

問卷編號：_____

Appendix N

Questionnaire (Head Teachers_Chinese Version)
教師問卷

敬愛的老師：您好！

我是美國賓州州立大學課程與教學系博士班的研究生，目前正在進行博士論文研究工作。這個研究的主要目的，是在針對影響兒童自律行為的因素作較深入的探討，同時更將進一步瞭解教師與家長參與的重要性。

這項研究的參與是採自願性的方式，而您必須年滿 18 歲以上才能參與這項研究。您可以在任何時候終止對於此項研究的參與，也可以選擇不回答任何您不想回答的問題。此外，每份問卷均保有其私密性，任何填答的資料將僅作為學術研究之用，絕對不會對外公開，請安心填答。

感謝您的支持與協助！ 敬祝

教安

美國賓州州立大學課程與教學系
博士候選人：黃秀琦 敬上
中華民國九十七年十一月十八日

第一部分：基本資料（若您已填過，請跳至第二部分）

說明：請於各題中選出一個最符合您實際狀況的答案，並於方框中標示“✓”記號；或於底線處填上最符合您的答案。

1. 您的性別： □ 男 □ 女

2. 您的年齡：
   □ 25 歲或以下 □ 26-30 歲 □ 31-35 歲
   □ 36-40 歲 □ 41-45 歲 □ 46-50 歲
   □ 51-55 歲 □ 56-60 歲 □ 61 歲或以上

3. 到 97 年 12 月底，您的年資為 _____ 年 _____ 個月（請填入數字）

4. 您在班上教授什麼科目？（可以複選）
   □ 國語 □ 鄉土語言 □ 英語
   □ 數學 □ 健康與體育 □ 自然生活與科技
   □ 藝術與人文 □ 社會 □ 綜合活動
   □ 其他 _____

5. 您和班上孩子相處的時間，平均一星期有 _____ 小時（請填入數字）

6. 學生每天平均有幾項家庭作業？
   □ 0-1 項　　□ 2-3 項　　□ 4 項或以上

第二部分：您與這位學生家長的互動關係

說明：請於各題中選出一個最符合您實際狀況的答案，並於方框中標示“✓”記號。

1. 這位學生的座號：_____(請填寫)。
   (問卷上的問卷編號及學生座號，只有主要研究者及其指導教授有權對照各問卷與答覆，因此每份問卷均保有其私密性，任何填答的資料將僅作為學術研究之用，絕對不會對外公開。)

2. 您平均多久與家長談論這位學生的事情？
   □ 每天 1 次或以上　　□ 一星期 2 至 3 次
   □ 一星期 1 次　　□ 兩星期 1 次
   □ 一個月 1 次　　□ 一個月少於 1 次
   □ 目前為止，從來沒有 → 若從來沒有，請直接跳至第 5 題作答

3. 您與這位學生的家長的談論方式為何？
   □ 口頭(例：面對面、電話)　　□ 書寫(例：聯絡簿、電子郵件)
   □ 口頭及書寫　　□ 其他 _____

4. 您通常與這位學生的家長談論這位學生的何種問題？
   □ 課業問題　　□ 行為表現
   □ 課業問題及行為表現　　□ 其他 _____

5. 這位學生的家長參與學校活動的頻率？
   □ 總是參加　　□ 經常參加　　□ 有時參加
   □ 偶爾參加　　□ 很少參加　　□ 從不參加

第三部分：您與這位學生的互動關係

說明：請於各題中選出一個最符合您實際狀況的答案，並於方框中標示“✓”記號；或於底線處填上最符合您的答案。
六個層級選項分別是：1 (從不) 2 (很少) 3 (偶爾) 4 (有時) 5 (經常) 6 (總是)

例如：您早上比這學生早到教室。	從不	很少	偶爾	有時	經常	總是
若您每天早上總是比這學生早到教室，	1	2	3	4	5	6
請於 6 下面的 □ 內標示“✓”記號。	□	□	□	□	□	☑

	從不 1	很少 2	偶爾 3	有時 4	經常 5	總是 6
1. 您需要花額外的時間協助這學生完成課堂練習。	☐	☐	☐	☐	☐	☐
2. 您需要注意這學生的行為，否則他／她會出現不適當的行為。	☐	☐	☐	☐	☐	☐
3. 您會與這學生面對面溝通。	☐	☐	☐	☐	☐	☐
4. 您會花很多的時間在這學生身上。	☐	☐	☐	☐	☐	☐
5. 您會給予這學生鼓勵或獎賞。	☐	☐	☐	☐	☐	☐
6. 您會懲罰這學生。	☐	☐	☐	☐	☐	☐
7. 您需要提醒這學生去做某些事。例如：回家作業的完成或需要攜帶到學校的物品。	☐	☐	☐	☐	☐	☐

8. 您鼓勵或獎賞這學生時最常用的型式：(請勾選其一)
☐ 無　☐ 社會性　☐ 實質性　☐ 兩種都用

9. 您懲罰這學生時最常用的型式：(請勾選其一)
☐ 無　☐ 社會性　☐ 實質性　☐ 兩種都用

第四部分：您對這位學生行為的瞭解

說明：請於各題中選出一個最符合您實際看法的答案，並於方框中標示“✓”記號。
六個層級選項分別是：1 (從不) 2 (很少) 3 (偶爾) 4 (有時) 5 (經常) 6 (總是)

例如：這學生會帶玩具到學校。	從不 1	很少 2	偶爾 3	有時 4	經常 5	總是 6
若您知道這學生從不帶玩具到學校，請於 1 下面的 ☐ 內標示“✓”記號。	☑	☐	☐	☐	☐	☐

甲、 關於這位學生在學校時的一般行為：	從不 1	很少 2	偶爾 3	有時 4	經常 5	總是 6
1. 這學生在您不注意時，會有不適當或不規矩的小動作。	☐	☐	☐	☐	☐	☐
2. 這學生可以自己把份內該做的事情做好、做完。	☐	☐	☐	☐	☐	☐

	從不 1	很少 2	偶爾 3	有時 4	經常 5	總是 6
3. 這學生的行為表現得到肯定後，會沾沾自喜、驕傲自滿。	□	□	□	□	□	□
4. 這學生會先把正在做的事情完成，才去做另一件事情。	□	□	□	□	□	□
5. 這學生能夠保持個人的整潔。	□	□	□	□	□	□
6. 這學生做事時會小心謹慎。	□	□	□	□	□	□
7. 這學生的行為表現得到肯定後，會表現得更好。	□	□	□	□	□	□
8. 這學生會在意自己與其他同學之間行為表現的好壞差異。	□	□	□	□	□	□
9. 這學生做任何事情都會慢半拍，無法準時完成。	□	□	□	□	□	□
10. 這學生會自己修正自己的行為。	□	□	□	□	□	□
11. 這學生遇到挫折時，會垂頭喪氣、自暴自棄。	□	□	□	□	□	□
12. 這學生會完成他／她答應要做的事情。	□	□	□	□	□	□
13. 這學生做事的時候需要您在旁邊盯著。	□	□	□	□	□	□
14. 這學生遇到不會做的事情時，會不知所措。	□	□	□	□	□	□
15. 這學生遇到挫折時，會為自己加油打氣。	□	□	□	□	□	□
16. 這學生會把應該做的事情做完。	□	□	□	□	□	□
17. 這學生會忘記要帶的東西或別人交代的事情。	□	□	□	□	□	□
18. 這學生對於被分配到的事情，需要別人告訴他／她做事的方法或步驟。	□	□	□	□	□	□
19. 這學生會為自己設立一個標準，並嘗試去達成。	□	□	□	□	□	□

	從不 1	很少 2	偶爾 3	有時 4	經常 5	總是 6
20. 這學生會注意自己的言行舉止是否合乎規矩。	□	□	□	□	□	□

乙、 關於這位學生在學校時的學習行為：	從不 1	很少 2	偶爾 3	有時 4	經常 5	總是 6
1. 這學生上課、寫習題時無法專心。	□	□	□	□	□	□
2. 不用您的督促，這學生會自己求得在學業上的好表現。	□	□	□	□	□	□
3. 這學生學業表現未達目標時，會勉勵自己再接再厲。	□	□	□	□	□	□
4. 這學生在學業上希望得到您的肯定。	□	□	□	□	□	□
5. 這學生上課會準時、不遲到。	□	□	□	□	□	□
6. 不用您的叮嚀，這學生可以自己把課堂練習做好、做完。	□	□	□	□	□	□
7. 這學生學業表現未達目標時，會垂頭喪氣、自暴自棄。	□	□	□	□	□	□
8. 這學生會在意自己與其他同學之間學業表現的好壞差異。	□	□	□	□	□	□
9. 這學生念書、寫習題的時候需要您在旁邊盯著。	□	□	□	□	□	□
10. 這學生可以自行完成課堂練習，不需要他人的協助。	□	□	□	□	□	□
11. 這學生學業表現達到目標後，會沾沾自喜、驕傲自滿。	□	□	□	□	□	□
12. 這學生會在意學業表現的好壞。	□	□	□	□	□	□
13. 這學生能夠按時繳交作業。	□	□	□	□	□	□
14. 這學生考試時會粗心大意。	□	□	□	□	□	□
15. 這學生學業表現達到目標後，會表現得更好。	□	□	□	□	□	□

	從不 1	很少 2	偶爾 3	有時 4	經常 5	總是 6
16. 這學生會希望有好的學業表現。	□	□	□	□	□	□
17. 這學生會忘記去做或做完作業。	□	□	□	□	□	□
18. 這學生遇到課業上的難題時，會不知所措。	□	□	□	□	□	□
19. 這學生學業表現能維持在一定的水準。	□	□	□	□	□	□

~本問卷到此結束，請您再次確認所有的題目都已填答~

請您將問卷彌封於信封袋內，並送至教務處

~感謝您的合作與您寶貴的時間~

Serial Number：_____

Appendix O

Questionnaire
(Parents_English Version)

Nov. 18, 2008

Dear Parents,

I am a graduate student in the department of Curriculum and Instruction at Pennsylvania State University and I am currently working on my doctoral dissertation research study. The purpose of this research study is to have a better understanding of the factors that influence children's self-regulation behavior, and get a better understanding of the importance of teachers' and parents' involvement in children's self-regulation behavior.

Throughout the study, your participation is voluntary, but you must be 18 years of age or older to take part in this research study. You can stop at any time and you do not have to answer any questions that you do not want to answer. In addition, your response to this questionnaire will remain confidential and will be used for research study only.

Thank you for your help!

Sincerely,
Shou-Chi Huang, Ph.D. Candidate
Department of Curriculum and Instruction
Pennsylvania State University

Section Ⅰ: Background Information

Directions: Choose one response or fill in an answer for each item.
*Remember to mark a "✓" in the box for the answer you choose.

1. Your gender is: ☐ Male ☐ Female

2. You are this child's:
   ☐ Parents ☐ Grandparents ☐ Uncle/Aunt ☐ Others _____

3. Your age is:
   ☐ 25 or under ☐ 26-30 ☐ 31-35
   ☐ 36-40 ☐ 41-45 ☐ 46-50
   ☐ 51-55 ☐ 56-60 ☐ 60 or above

4. Your highest educational level is:
   ☐ Junior high or under ☐ High school ☐ Vocational high school
   ☐ Junior college ☐ University (Bachelor degree)
   ☐ Master Degree ☐ Doctor Degree

5. Your current primary occupation is:
   ☐ Military service, police, government employee and education
   ☐ Management and professional in private sector
   ☐ Staff or office employee in private sector
   ☐ Labor in private sector ☐ Agriculture ☐ Self-employment
   ☐ Housewife ☐ Non-employee ☐ Other _____
   ☐ Retired (please check one of the above occupations before retirement)

6. How much is your total monthly household income?
   ☐ NT 30,000 or under ☐ NT 30,001 – 50,000
   ☐ NT 50,001 – 70,000 ☐ NT 70,001 – 100,000
   ☐ NT 100,001 – 150,000 ☐ NT 150,001 or above

7. How many children do you have?
   ☐ 1 ☐ 2 ☐ 3 ☐ 4 or more

8. The child who is currently studying in first grade is your _____ child.
   (please fill in a number, for example, 1st, 2nd, etc.)

9. The child's gender is: ☐ Male ☐ Female

10. Did your child attend kindergarten or preschool before going to first grade?
    ☐ Yes, for _____ years and _____ months in total. (please fill in with numbers)
    ☐ No → If no, go to section Ⅱ

11. Type(s) of school your child have attended before elementary school:
    ☐ None ☐ Preschool ☐ Kindergarten
    ☐ Preschool & Kindergarten ☐ Others _____

12. If your child had attended kindergarten before, your child behaves…
    ☐ Better in first grade than kindergarten
    ☐ Worse in first grade than kindergarten
    ☐ No difference

13. Your child's school ID number: _____ (please fill in numbers)
    (Only the principal investigator and the principal investigator's advisor are able to link the responses to the serial number on each questionnaire and the student's ID number here. Each questionnaire will remain confidential and will be used for the research study only.)

Section Ⅱ: Interaction between You and Your Child's Head Teacher

Directions: Choose one response or fill in an answer for each item.
*Remember to mark a "✓" in the box for the answer you choose.

1. How often do you contact with your child's head teacher?
   ☐ Once a day or more ☐ 2 to 3 times a week
   ☐ Once a week ☐ Once every two weeks

☐ Once a month ☐ Less than once a month
☐ Never → If never, go to question 4

2. How do you contact your child's head teacher?
   ☐ Oral (e.g., Face to Face & Phone) ☐ Written (e.g., Contact Book & Email)
   ☐ Oral & Written ☐ Others _____

3. Typically when you contact the head teacher, what do you usually want know through the head teacher about your child?
   ☐ Schoolwork ☐ Behavior
   ☐ Schoolwork & Behavior ☐ Others _____

4. How frequently do you attend the school's activities?
   ☐ Always ☐ Mostly ☐ Often
   ☐ Sometimes ☐ Little ☐ Never

Section Ⅲ: Interaction between You and Your Child

Directions: Choose one response or filled in an answer for each item.
*Remember to mark only one "✓" in the scale for each question.
The response scale includes four options:
1 (Never True) 2 (Little True) 3 (Sometimes True)
4 (Often True) 5 (Mostly True) 6 (Always True)

For example:
You read bed-time stories to your child.
If you always read bed-time stories to your child, then put a "✓" in the ☐ under number 6.

	1	2	3	4	5	6
	☐	☐	☐	☐	☐	☑

	Never True 1	Little True 2	Sometimes True 3	Often True 4	Mostly True 5	Always True 6
1. It takes you a lot of time helping your child with his/her homework or reviewing his/her courses.	☐	☐	☐	☐	☐	☐
2. You have to monitor your child's behavior or he/she would act improperly.	☐	☐	☐	☐	☐	☐
3. You would communicate with your child face to face.	☐	☐	☐	☐	☐	☐
4. You would set the rules and require your child to adhere to them accordingly.	☐	☐	☐	☐	☐	☐

	Never True 1	Little True 2	Sometimes True 3	Often True 4	Mostly True 5	Always True 6
5. You would spend a lot of time with your child.	☐	☐	☐	☐	☐	☐
6. You would provide encouragement or prize to your child.	☐	☐	☐	☐	☐	☐
7. You would punish your child.	☐	☐	☐	☐	☐	☐
8. You would remind your child for certain tasks such as completing his/her homework or brining required items for school assignment.	☐	☐	☐	☐	☐	☐

9. The primary care giver is your child's:
☐ Parents ☐ Grandparents ☐ Uncle/Aunt ☐ Others _____

10. The average time your child spend working on homework daily (please fill in numbers). _____ hours _____ minutes

11. Type(s) of encouragement or prize you offer to your child: (please choose one)
☐ None ☐ Social ☐ Substantial ☐ Both

12. Type(s) of punishment you use for your child: (please choose one)
☐ None ☐ Social ☐ Substantial ☐ Both

Section Ⅳ: Your Understanding of Your Child's Behaviors

Directions: Choose one response or filled in an answer for each item.
*Remember to mark only one "✓" in the scale for each question.
The response scale includes four options:
1 (Never True) 2 (Little True) 3 (Sometimes True)
4 (Often True) 5 (Mostly True) 6 (Always True)

For example:

	1	2	3	4	5	6
Your child watches TV during meals.						
If your child never watches TV during meals, then put a "✓" in the ☐ under number 1.	☑	☐	☐	☐	☐	☐

A. General Behavior at home:	Never True 1	Little True 2	Sometimes True 3	Often True 4	Mostly True 5	Always True 6
1. Your child would act improperly or inadequately while you are not paying attention to him/her.	☐	☐	☐	☐	☐	☐

	Never True 1	Little True 2	Sometimes True 3	Often True 4	Mostly True 5	Always True 6
2. Your child can complete his/her requested assignments successfully.	☐	☐	☐	☐	☐	☐
3. Your child would sing his/her praises after his/her performance was recognized.	☐	☐	☐	☐	☐	☐
4. Your child would complete what he/she has at hand before starting a new project.	☐	☐	☐	☐	☐	☐
5. Your child could keep his/her personal tidiness.	☐	☐	☐	☐	☐	☐
6. Your child would act prudently.	☐	☐	☐	☐	☐	☐
7. Your child would excel after being praised by his/her positive performance.	☐	☐	☐	☐	☐	☐
8. Your child would compare his/her performance against other classmates or neighbors.	☐	☐	☐	☐	☐	☐
9. Your child would drag on the assignment and fail to meet the schedule.	☐	☐	☐	☐	☐	☐
10. Your child would modify his/her own behavior.	☐	☐	☐	☐	☐	☐
11. Your child would feel defeated and depressed while facing obstacle.	☐	☐	☐	☐	☐	☐
12. Your child would finish what he/she promised to accomplish.	☐	☐	☐	☐	☐	☐
13. Your child requires your close monitoring to finish the assignment.	☐	☐	☐	☐	☐	☐
14. Your child would feel helpless when encountering situation he/she does not know.	☐	☐	☐	☐	☐	☐
15. Your child would lift him/herself up while facing frustration.	☐	☐	☐	☐	☐	☐

	Never True 1	Little True 2	Sometimes True 3	Often True 4	Mostly True 5	Always True 6
16. Your child would finish what was expected of him/her.	☐	☐	☐	☐	☐	☐
17. Your child would forget about things needed for school or tasks assignment to him/her.	☐	☐	☐	☐	☐	☐
18. Your child needs instructions or steps for assignments that were assignment to him/her.	☐	☐	☐	☐	☐	☐
19. Your child would set a standard for him/herself and try to meet it.	☐	☐	☐	☐	☐	☐
20. Your child would pay attention to if his/her language and behavior are in compliance with the rules.	☐	☐	☐	☐	☐	☐

B. Learning Behavior at Home:	Never True 1	Little True 2	Sometimes True 3	Often True 4	Mostly True 5	Always True 6
1. Your child will go to school on time without being late.	☐	☐	☐	☐	☐	☐
2. Your child would pursuit higher scores in his/her academic performance without your supervision.	☐	☐	☐	☐	☐	☐
3. Your child would pledge him/herself to work harder when his/her academic performance is less than satisfactory.	☐	☐	☐	☐	☐	☐
4. Your child would like to receive your recognition in his/her academic performance.	☐	☐	☐	☐	☐	☐
5. You have to sit next to your child while he/she is studying or working on his/her homework.	☐	☐	☐	☐	☐	☐
6. Your child could finish his/her homework successfully without your reminding.	☐	☐	☐	☐	☐	☐
7. Your child would feel defeated and depressed while his/her academic performance is less than satisfactory.	☐	☐	☐	☐	☐	☐

	Never True 1	Little True 2	Sometimes True 3	Often True 4	Mostly True 5	Always True 6
8. Your child cares about his/her academic performance while comparing with his/her classmates or neighbors.	☐	☐	☐	☐	☐	☐
9. Your child would not be able to stay focus while studying or working on homework.	☐	☐	☐	☐	☐	☐
10. Your child could finish his/her homework independently without additional assistance.	☐	☐	☐	☐	☐	☐
11. Your child would sing his/her praises after meeting his/her academic objectives.	☐	☐	☐	☐	☐	☐
12. Your child cares about his/her academic performance.	☐	☐	☐	☐	☐	☐
13. Your child could finish the homework on time.	☐	☐	☐	☐	☐	☐
14. Your child would be careless when taking exams.	☐	☐	☐	☐	☐	☐
15. Your child would excel after meeting his/her academic objectives.	☐	☐	☐	☐	☐	☐
16. Your child would like to have good academic performance.	☐	☐	☐	☐	☐	☐
17. Your child would forget to do or finish his/her homework.	☐	☐	☐	☐	☐	☐
18. Your child would feel helpless when encountering difficulties in homework.	☐	☐	☐	☐	☐	☐
19. Your child's academic performance could maintain at certain level.	☐	☐	☐	☐	☐	☐

This questionnaire has ended. Please make sure all items are filled.
Please seal it in the envelope and return to the Office of Academic Affairs.
Thank you for your participating in this study and your precious time!

問卷編號：_____

Appendix P

Questionnaire (Parents_Chinese Version)
家長問卷

親愛的家長：您好！

我是美國賓州州立大學課程與教學系博士班的研究生，目前正在進行博士論文研究工作。這個研究的主要目的，是在針對影響兒童自律行為的因素作較深入的探討，同時更將進一步瞭解教師與家長參與的重要性。

這項研究的參與是採自願性的方式，而您必須年滿 18 歲以上才能參與這項研究。您可以在任何時候終止對於此項研究的參與，也可以選擇不回答任何您不想回答的問題。此外，每份問卷均保有其私密性，任何填答的資料將僅作為學術研究之用，絕對不會對外公開，請安心填答。

感謝您的支持與協助！ 敬祝

闔家平安

美國賓州州立大學課程與教學系
博士候選人：黃秀琦 敬上
中華民國九十七年十一月十八日

第一部分：基本資料

說明：請於各題中選出一個最符合您實際狀況的答案，並於方框中標示“✓”記號；或於底線處填上最符合您的答案。

1. 您的性別： □ 男 □ 女

2. 您是孩子的： □ 父、母親 □ （外）祖父、母
□ 伯叔舅／伯舅母嬸姨 □ 其他 _____

3. 您的年齡：
□ 25 歲或以下 □ 26-30 歲 □ 31-35 歲
□ 36-40 歲 □ 41-45 歲 □ 46-50 歲
□ 51-55 歲 □ 56-60 歲 □ 61 歲或以上

4. 您的最高教育程度：
□ 國中或以下 □ 高中 □高職 □ 專科
□ 大學（學士） □ 碩士 □博士

5. 您目前從事的職業：
□ 軍人、警察、公務人員與教職人員

☐ 私人企業管理階級與專業人員　☐ 私人企業職員
☐ 私人企業勞工　☐ 農林漁牧業　☐ 自營商
☐ 家管　☐ 未就業或待業中　☐ 其他 _____
☐ 退休（請勾選此處，並請於上列勾選出退休前的職業）

6. 您家庭每個月總收入大約是：
☐ 新台幣 30,000 元或以下　☐ 新台幣 30,001-50,000 元
☐ 新台幣 50,001-70,000 元　☐ 新台幣 70,001-100,000 元
☐ 新台幣 100,001-150,000 元　☐ 新台幣 150,001 元或以上

7. 您有幾個孩子：
☐ 1 個　☐ 2 個　☐ 3 個　☐ 4 個或以上

8. 目前就讀一年級的孩子是您第 _____ 個孩子（請填入一個數字）

9. 目前就讀一年級的孩子的性別是：　☐ 男　☐ 女

10. 您孩子上小學一年級前是否有上幼稚園或托兒所？
☐ 有，共 _____ 年 _____ 個月（請填入數字）
☐ 無 → 若無，請直接跳至第 13 題作答

11. 您孩子上小學前曾經上過哪些類型的學校？
☐ 無　☐ 托兒所　☐ 幼稚園
☐ 托兒所及幼稚園　☐ 其他 _____

12. 若您孩子上過“幼稚園或托兒所”，他／她現在的言行舉止表現是：
☐ 一年級時比幼稚園或托兒所時好
☐ 幼稚園或托兒所時比一年級時好
☐ 沒有差別

13. 您孩子的座號：_____（請填寫）。
（問卷上的問卷編號及您孩子的座號，只有主要研究者及其指導教授有權對照各問卷與答覆，因此每份問卷均保有其私密性，任何填答的資料將僅作為學術研究之用，絕對不會對外公開。)

第二部分：您與您孩子導師的互動關係

說明：請於各題中選出一個最符合您實際狀況的答案，並於方框中標示“✓”記號。

1. 您平均多久與導師談論您孩子的事情？
☐ 每天 1 次　☐ 一星期 2 至 3 次
☐ 一星期 1 次　☐ 兩星期 1 次
☐ 一個月 1 次　☐ 一個月少於 1 次
☐ 目前為止，從來沒有 → 若從來沒有，請直接跳至第 4 題作答

2. 您與導師的談論方式為何？
   □ 口頭(例：面對面、電話)　□ 書寫(例：聯絡簿、電子郵件)
   □ 口頭及書寫　□ 其他 _____

3. 您通常與導師談論您孩子的何種問題？
   □ 課業問題　□ 行為表現
   □ 課業問題及行為表現　□ 其他 _____

4. 請問您參與學校活動的頻率？
   □ 總是參加　□ 經常參加　□ 有時參加
   □ 偶爾參加　□ 很少參加　□ 從不參加

第三部分：您與您孩子的互動關係

說明：請於各題中選出一個最符合您實際狀況的答案，並於方框中標示“✓”記號；或於底線處填上最符合您的答案。
六個層級選項分別是：1 (從不) 2 (很少) 3 (偶爾) 4 (有時) 5 (經常) 6 (總是)

例如：您晚上會說床邊故事給您孩子聽。若您每天晚上總是會說床邊故事給您孩子聽，請於 6 下面的 □ 內標示“✓”記號。

	從不	很少	偶爾	有時	經常	總是
	1	2	3	4	5	6
	□	□	□	□	□	☑

	從不 1	很少 2	偶爾 3	有時 4	經常 5	總是 6
1. 您需要花很多時間協助您孩子完成家庭作業或複習學校課業。	□	□	□	□	□	□
2. 您必須注意您孩子的行為，否則他／她會出現不適當的行為。	□	□	□	□	□	□
3. 您會與您孩子面對面溝通。	□	□	□	□	□	□
4. 您會訂定規矩並要求您孩子遵守。	□	□	□	□	□	□
5. 您會花很多時間在您孩子身上。	□	□	□	□	□	□
6. 您會給予您的孩子鼓勵或獎賞。	□	□	□	□	□	□
7. 您會懲罰您的孩子。	□	□	□	□	□	□
8. 您需要提醒您孩子去做某些事。例如：回家作業的完成或需要攜帶到學校的物品。	□	□	□	□	□	□

9. 您孩子的主要照顧者是孩子的：
   □ 父、母親　　□ （外）祖父、母
   □ 伯叔舅／伯舅母嬸姨　　□ 其他 _____

10. 您孩子平均每天花在家庭作業的時間 _____ 小時 _____ 分鐘
    (請填入數字)。

11. 您鼓勵或獎賞您孩子時最常用的型式：(請勾選其一)
    □ 無　□ 社會性　□ 實質性　□ 兩種都用

12. 您懲罰您孩子時最常用的型式：(請勾選其一)
    □ 無　□ 社會性　□ 實質性　□ 兩種都用

第四部分：您對您孩子行為的瞭解

說明：請於各題中選出一個最符合您實際看法的答案，並於方框中標示“✓”記號。
六個層級選項分別是：1 (從不) 2 (很少) 3 (偶爾) 4 (有時) 5 (經常) 6 (總是)

例如：您孩子吃飯時會看電視。	從不	很少	偶爾	有時	經常	總是
若您孩子吃飯時從不看電視，請	1	2	3	4	5	6
於 1 下面的 □ 內標示“✓”記號。	☑	□	□	□	□	□

甲、 關於您孩子在家時的一般行為：	從不 1	很少 2	偶爾 3	有時 4	經常 5	總是 6
1. 您孩子在您不注意時，會有不適當或不規矩的小動作。	□	□	□	□	□	□
2. 您孩子可以自己把份內該做的事情做好、做完。	□	□	□	□	□	□
3. 您孩子的行為表現得到肯定後，會沾沾自喜、驕傲自滿。	□	□	□	□	□	□
4. 您孩子會先把正在做的事情完成，才去做另一件事情。	□	□	□	□	□	□
5. 您孩子能夠保持個人的整潔。	□	□	□	□	□	□
6. 您孩子做事時會小心謹慎。	□	□	□	□	□	□
7. 您孩子的行為表現得到肯定後，會表現得更好。	□	□	□	□	□	□

	從不 1	很少 2	偶爾 3	有時 4	經常 5	總是 6
8. 您孩子會在意自己與同學或鄰居之間行為表現的好壞差異。	□	□	□	□	□	□
9. 您孩子做任何事情都會慢半拍，無法準時完成。	□	□	□	□	□	□
10. 您孩子會自己修正自己的行為。	□	□	□	□	□	□
11. 您孩子遇到挫折時，會垂頭喪氣、自暴自棄。	□	□	□	□	□	□
12. 您孩子會完成他／她答應要做的事情。	□	□	□	□	□	□
13. 您孩子做事的時候需要您在旁邊盯著。	□	□	□	□	□	□
14. 您孩子遇到不會做的事情時，會不知所措。	□	□	□	□	□	□
15. 您孩子遇到挫折時，會為自己加油打氣。	□	□	□	□	□	□
16. 您孩子會把應該做的事情做完。	□	□	□	□	□	□
17. 您孩子會忘記要帶的東西或別人交代的事情。	□	□	□	□	□	□
18. 您孩子對於被分配到的事情，需要別人告訴他／她做事的方法或步驟。	□	□	□	□	□	□
19. 您孩子會為自己設立一個標準，並嘗試去達成。	□	□	□	□	□	□
20. 您孩子會注意自己的言行舉止是否合乎規矩。	□	□	□	□	□	□

乙、 關於您孩子在家時的學習行為：	從不 1	很少 2	偶爾 3	有時 4	經常 5	總是 6
1. 您孩子上學會準時、不遲到。	□	□	□	□	□	□
2. 不用您的督促，您孩子會自己求得在學業上的好表現。	□	□	□	□	□	□
3. 您孩子學業表現未達目標時，會勉勵自己再接再厲。	□	□	□	□	□	□

	從不 1	很少 2	偶爾 3	有時 4	經常 5	總是 6
4. 您孩子在學業上希望得到您的肯定。	□	□	□	□	□	□
5. 您孩子念書、寫作業的時候需要您在旁邊盯著。	□	□	□	□	□	□
6. 不用您的叮嚀，您孩子可以自己把家庭作業做好、做完。	□	□	□	□	□	□
7. 您孩子學業表現未達目標時，會垂頭喪氣、自暴自棄。	□	□	□	□	□	□
8. 您孩子會在意自己與同學或鄰居之間學業表現的好壞差異。	□	□	□	□	□	□
9. 您孩子念書、寫作業時無法專心。	□	□	□	□	□	□
10. 您孩子可以自行完成家庭作業，不需要他人的協助。	□	□	□	□	□	□
11. 您孩子學業表現達到目標後，會沾沾自喜、驕傲自滿。	□	□	□	□	□	□
12. 您孩子會在意學業表現的好壞。	□	□	□	□	□	□
13. 您孩子能夠按時做完家庭作業。	□	□	□	□	□	□
14. 您孩子考試時會粗心大意。	□	□	□	□	□	□
15. 您孩子學業表現達到目標後，會表現得更好。	□	□	□	□	□	□
16. 您孩子會希望有好的學業表現。	□	□	□	□	□	□
17. 您孩子會忘記去做或做完家庭作業。	□	□	□	□	□	□
18. 您孩子遇到課業上的難題時，會不知所措。	□	□	□	□	□	□
19. 您孩子學業表現能維持在一定的水準。	□	□	□	□	□	□

~本問卷到此結束，請您再次確認所有的題目都已填答~

請您將問卷彌封於信封袋內，並送至教務處

~感謝您的合作與您寶貴的時間~

Appendix Q

Curve Estimation

Table 1

Curve Estimation (Independent Variable: Age, Educational Level, & Income; Dependent Variable: Overall Self-Regulation Behavior at Home)

Dependent Variable: Overall Self-Regulation Behavior at Home					
Model Summary					
Equation	*R* Square	*F*	*df1*	*df2*	*Sig.*
Linear	.004	1.762	1	425	.185
Quadratic	.006	1.356	2	424	.259
Independent variable was Age.					
Linear	.002	.662	1	424	.416
Quadratic	.002	.505	2	423	.604
Independent variable was Highest Education.					
Linear	.017	6.985	1	399	.009
Quadratic	.019	3.859	2	398	.022
Independent variable was Income.					

Table 2

Curve Estimation (Independent Variable: Attended Months, & HW Time Spent Daily; Dependent Variable: Overall Self-Regulation Behavior at School)

Dependent Variable: Overall Self-Regulation Behavior at School					
Model Summary					
Equation	*R* Square	*F*	*df1*	*df2*	*Sig.*
Linear	.024	9.911	1	411	.002
Quadratic	.026	5.538	2	410	.004
Independent variable was Attended Months.					
Linear	.023	9.482	1	411	.002
Quadratic	.023	4.810	2	410	.009
Independent variable was HW Time Spent Daily.					

Table 3

Curve Estimation (Independent Variable: Attended Months, & HW Time Spent Daily; Dependent Variable: Overall Self-Regulation Behavior at Home)

Dependent Variable: Overall Self-Regulation Behavior at Home					
Model Summary					
Equation	*R* Square	*F*	*df1*	*df2*	*Sig.*
Linear	.016	6.812	1	408	.009
Quadratic	.017	3.508	2	407	.031
Independent variable was Attended Months.					
Linear	.089	40.165	1	411	<.001
Quadratic	.091	20.580	2	410	<.001
Independent variable was HW Time Spent Daily.					

Table 4

Curve Estimation (Independent Variable: Contact Frequency, Participate Frequency, Time Help, Pay Attention, Face to Face Com., Spend Time, Give Reward, Use Punishment, & Need to Remind; Dependent Variable: Overall Self-Regulation Behavior at School)

Dependent Variable: Overall Self-Regulation Behavior at School					
Model Summary					
Equation	*R* Square	*F*	*df1*	*df2*	*Sig.*
Linear	.029	12.681	1	431	<.001
Quadratic	.046	10.484	2	430	<.001
Independent variable was Contact Frequency.					
Linear	.002	.834	1	427	.362
Quadratic	.006	1.303	2	426	.273
Independent variable was Participate Frequency.					
Linear	.470	384.525	1	433	<.001
Quadratic	.471	192.314	2	432	<.001
Independent variable was Time Help.					
Linear	.487	411.191	1	433	<.001
Quadratic	.488	205.946	2	432	<.001
Independent variable was Pay Attention.					
Linear	.018	7.846	1	432	.005
Quadratic	.072	16.775	2	431	<.001
Independent variable was Face to Face Com.					
Linear	.411	301.726	1	433	<.001
Quadratic	.411	150.871	2	432	<.001
Independent variable was Spend Time.					

Linear	.136	68.043	1	432	<.001
Quadratic	.137	34.351	2	431	<.001
Independent variable was Give Reward.					
Linear	.288	173.870	1	429	<.001
Quadratic	.288	86.738	2	428	<.001
Independent variable was Use Punishment.					
Linear	.528	483.927	1	433	<.001
Quadratic	.528	241.522	2	432	<.001
Independent variable was Need to Remind.					

Table 5

Curve Estimation (Independent Variable: Contact Frequency, Participate Frequency, Time Help, Pay Attention, Face to Face Com., Set Rules, Spend Time, Give Reward, Use Punishment, & Need to Remind; Dependent Variable: Overall Self-Regulation Behavior at Home)

Dependent Variable: Overall Self-Regulation Behavior at Home					
Model Summary					
Equation	*R* Square	*F*	*df1*	*df2*	*Sig.*
Linear	.006	2.470	1	421	.117
Quadratic	.008	1.665	2	420	.190
Independent variable was Contact Frequency.					
Linear	.026	11.164	1	423	.001
Quadratic	.031	6.741	2	422	.001
Independent variable was Participate Frequency.					
Linear	.081	37.611	1	426	<.001
Quadratic	.085	19.832	2	425	<.001
Independent variable was Time Help.					

Linear	.099	46.939	1	425	<.001
Quadratic	.103	24.216	2	424	<.001
Independent variable was Pay Attention.					
Linear	.031	13.739	1	426	<.001
Quadratic	.047	10.371	2	425	<.001
Independent variable was Face to Face Com.					
Linear	.000	.077	1	425	.782
Quadratic	.005	.961	2	424	.383
Independent variable was Set Rules.					
Linear	.007	2.923	1	426	.088
Quadratic	.007	1.514	2	425	.221
Independent variable was Spend Time.					
Linear	.045	20.097	1	425	<.001
Quadratic	.045	10.066	2	424	<.001
Independent variable was Give Reward.					
Linear	.039	17.382	1	426	<.001
Quadratic	.052	11.671	2	425	<.001
Independent variable was Use Punishment.					
Linear	.190	99.350	1	423	<.001
Quadratic	.191	49.741	2	422	<.001
Independent variable was Need to Remind.					

Appendix R

Correlation

Table 1

Children Overall Self-Regulation at Home Correlated with Parental Background Factors (n=400)

	Variables	Children Overall Self-Regulation at Home	Gender 0=Male 1=Female	Age	Highest Education	Occupation 1 0=Others 1= Gov. Employee
Pearson Correlation	Children Overall Self-Regulation at Home	1.000	.004	.088	.038	.072
	Gender 0=Male 1=Female	.004	1.000	-.227	-.094	.000
	Age	.088	-.227	1.000	.112	.104
	Highest Education	.038	-.094	.112	1.000	.424
	Occupation 1 0=Others 1= Gov. Employee	.072	.000	.104	.424	1.000
	Occupation 2 0=Others 1=Private Manager	.030	-.077	.089	.179	-.199
	Occupation 3 0=Others 1=Private Staff	.065	-.058	-.114	-.102	-.241
	Occupation 4 0=Others 1= House Wife	-.130	.241	-.066	-.234	-.320
	Income	.130	.058	.163	.518	.257
	Caregiver 0=Others 1=Parents	.092	-.038	.026	-.043	-.054

(table continues)

Table 1 *(continued)*

Children Overall Self-Regulation at Home Correlated with Parental Background Factors (n=400)

	Variables	Occupation 2 0=Others 1=Private Manager	Occupation 3 0=Others 1=Private Staff	Occupation 4 0=Others 1= House Wife	Income	Caregiver 0=Others 1=Parents
Pearson Correlation	Children Overall Self-Regulation at Home	.030	.065	-.130	.130	.092
	Gender 0=Male 1=Female	-.077	-.058	.241	.058	-.038
	Age	.089	-.114	-.066	.163	.026
	Highest Education	.179	-.102	-.234	.518	-.043
	Occupation 1 0=Others 1= Gov. Employee	-.199	-.241	-.320	.257	-.054
	Occupation 2 0=Others 1=Private Manager	1.000	-.226	-.300	.261	-.043
	Occupation 3 0=Others 1=Private Staff	-.226	1.000	-.363	-.010	-.071
	Occupation 4 0=Others 1= House Wife	-.300	-.363	1.000	-.240	.149
	Income	.261	-.010	-.240	1.000	-.003
	Caregiver 0=Others 1=Parents	-.043	-.071	.149	-.003	1.000

(table continues)

Table 1 *(continued)*

Children Overall Self-Regulation at Home Correlated with Parental Background Factors (n=400)

	Variables	Children Overall Self-Regulation at Home	Gender 0=Male 1=Female	Age	Highest Education	Occupation 1 0=Others 1= Gov. Employee
Sig. (1-tailed)	Children Overall Self-Regulation at Home	.	.469	.039	.226	.075
	Gender 0=Male 1=Female	.469	.	.000	.030	.496
	Age	.039	.000	.	.013	.018
	Highest Education	.226	.030	.013	.	.000
	Occupation 1 0=Others 1= Gov. Employee	.075	.496	.018	.000	.
	Occupation 2 0=Others 1=Private Manager	.278	.063	.038	.000	.000
	Occupation 3 0=Others 1=Private Staff	.096	.125	.011	.021	.000
	Occupation 4 0=Others 1= House Wife	.005	.000	.095	.000	.000
	Income	.005	.123	.001	.000	.000
	Caregiver 0=Others 1=Parents	.033	.225	.302	.193	.140

(table continues)

Table 1 *(continued)*

Children Overall Self-Regulation at Home Correlated with Parental Background Factors (n=400)

	Variables	Occupation 2 0=Others 1=Private Manager	Occupation 3 0=Others 1=Private Staff	Occupation 4 0=Others 1= House Wife	Income	Caregiver 0=Others 1=Parents
Sig. (1-tailed)	Children Overall Self-Regulation at Home	.278	.096	.005	.005	.033
	Gender 0=Male 1=Female	.063	.125	.000	.123	.225
	Age	.038	.011	.095	.001	.302
	Highest Education	.000	.021	.000	.000	.193
	Occupation 1 0=Others 1= Gov. Employee	.000	.000	.000	.000	.140
	Occupation 2 0=Others 1=Private Manager	.	.000	.000	.000	.197
	Occupation 3 0=Others 1=Private Staff	.000	.	.000	.424	.078
	Occupation 4 0=Others 1= House Wife	.000	.000	.	.000	.001
	Income	.000	.424	.000	.	.480
	Caregiver 0=Others 1=Parents	.197	.078	.001	.480	.

Table 2

Children's Overall Self-Regulation at School Correlated with Children Background Factor (n=393)

	Variables	Children's Overall Self-Regulation at School	Number of Children 1 0=Others 1=One Child	Number of Children 3 0=Others 1=Three Children or More	Child Birth Order 2 0=Others 1=Second Child	Child Birth Order 3 0=Others 1=Third Child or After
Pearson Correlation	Children's Overall Self-Regulation at School	1.000	-.080	-.011	.064	.020
	Number of Children 1 0=Others 1=One Child	-.080	1.000	-.202	-.411	-.158
	Number of Children 3 0=Others 1=Three Children or More	-.011	-.202	1.000	-.171	.780
	Child Birth Order 2 0=Others 1=Second Child	.064	-.411	-.171	1.000	-.231
	Child Birth Order 3 0=Others 1=Third Child or After	.020	-.158	.780	-.231	1.000
	Attended Months	.144	.039	-.072	-.072	-.029
	School Went 1 0=Others 1=Preschool	-.004	.006	.026	-.061	.019
	School Went 2 0=Others 1=Kindergarten	-.042	-.013	-.031	.101	-.027
	HW Time Spent Daily	-.153	-.058	.038	.005	.031

(table continues)

Table 2 *(continued)*

Children's Overall Self-Regulation at School Correlated with Children Background Factor (n=393)

	Variables	Attended Months	School Went 1 0=Others 1=Preschool	School Went 2 0=Others 1=Kindergarten	HW Time Spent Daily
Pearson Correlation	Children's Overall Self-Regulation at School	.144	-.004	-.042	-.153
	Number of Children 1 0=Others 1=One Child	.039	.006	-.013	-.058
	Number of Children 3 0=Others 1=Three Children or More	-.072	.026	-.031	.038
	Child Birth Order 2 0=Others 1=Second Child	-.072	-.061	.101	.005
	Child Birth Order 3 0=Others 1=Third Child or After	-.029	.019	-.027	.031
	Attended Months	1.000	.243	-.306	-.098
	School Went 1 0=Others 1=Preschool	.243	1.000	-.743	-.047
	School Went 2 0=Others 1=Kindergarten	-.306	-.743	1.000	.056
	HW Time Spent Daily	-.098	-.047	.056	1.000

(table continues)

Table 2 *(continued)*

Children's Overall Self-Regulation at School Correlated with Children Background Factor (n=393)

	Variables	Children's Overall Self-Regulation at School	Number of Children 1 0=Others 1=One Child	Number of Children 3 0=Others 1=Three Children or More	Child Birth Order 2 0=Others 1=Second Child	Child Birth Order 3 0=Others 1=Third Child or After
Sig. (1-tailed)	Children's Overall Self-Regulation at School	.	.056	.410	.101	.349
	Number of Children 1 0=Others 1=One Child	.056	.	.000	.000	.001
	Number of Children 3 0=Others 1=Three Children or More	.410	.000	.	.000	.000
	Child Birth Order 2 0=Others 1=Second Child	.101	.000	.000	.	.000
	Child Birth Order 3 0=Others 1=Third Child or After	.349	.001	.000	.000	.
	Attended Months	.002	.223	.077	.077	.283
	School Went 1 0=Others 1=Preschool	.469	.455	.306	.112	.353
	School Went 2 0=Others 1=Kindergarten	.203	.400	.271	.023	.300
	HW Time Spent Daily	.001	.126	.227	.462	.268

(table continues)

Table 2 *(continued)*

Children's Overall Self-Regulation at School Correlated with Children Background Factor (n=393)

	Variables	Attended Months	School Went 1 0=Others 1=Preschool	School Went 2 0=Others 1=Kindergarten	HW Time Spent Daily
Sig. (1-tailed)	Children's Overall Self-Regulation at School	.002	.469	.203	.001
	Number of Children 1 0=Others 1=One Child	.223	.455	.400	.126
	Number of Children 3 0=Others 1=Three Children or More	.077	.306	.271	.227
	Child Birth Order 2 0=Others 1=Second Child	.077	.112	.023	.462
	Child Birth Order 3 0=Others 1=Third Child or After	.283	.353	.300	.268
	Attended Months	.	.000	.000	.026
	School Went 1 0=Others 1=Preschool	.000	.	.000	.177
	School Went 2 0=Others 1=Kindergarten	.000	.000	.	.132
	HW Time Spent Daily	.026	.177	.132	.

Table 3

Children Overall Self-Regulation at Home Correlated with Children's Background Factor (n=394)

	Variables	Children Overall Self-Regulation at Home	Number of Children 1 0=Others 1=One Child	Number of Children 3 0=Others 1=Three Children or More	Child Birth Order 2 0=Others 1=Second Child	Child Birth Order 3 0=Others 1=Third Child or After
Pearson Correlation	Children Overall Self-Regulation at Home	1.000	-.062	.029	.128	.060
	Number of Children 1 0=Others 1=One Child	-.062	1.000	-.213	-.414	-.160
	Number of Children 3 0=Others 1=Three Children or More	.029	-.213	1.000	-.150	.751
	Child Birth Order 2 0=Others 1=Second Child	.128	-.414	-.150	1.000	-.237
	Child Birth Order 3 0=Others 1=Third Child or After	.060	-.160	.751	-.237	1.000
	Attended Months	.095	.034	-.110	-.077	-.048
	School Went 1 0=Others 1=Preschool	.067	-.015	.034	-.051	.021
	School Went 2 0=Others 1=Kindergarten	-.038	-.009	-.013	.094	-.006
	HW Time Spent Daily	-.286	-.060	.045	-.004	.033

(table continues)

Table 3 *(continued)*

Children Overall Self-Regulation at Home Correlated with Children's Background Factor (n=394)

	Variables	Attended Months	School Went 1 0=Others 1=Preschool	School Went 2 0=Others 1=Kindergarten	HW Time Spent Daily
Pearson Correlation	Children Overall Self-Regulation at Home	.095	.067	-.038	-.286
	Number of Children 1 0=Others 1=One Child	.034	-.015	-.009	-.060
	Number of Children 3 0=Others 1=Three Children or More	-.110	.034	-.013	.045
	Child Birth Order 2 0=Others 1=Second Child	-.077	-.051	.094	-.004
	Child Birth Order 3 0=Others 1=Third Child or After	-.048	.021	-.006	.033
	Attended Months	1.000	.217	-.289	-.125
	School Went 1 0=Others 1=Preschool	.217	1.000	-.738	-.048
	School Went 2 0=Others 1=Kindergarten	-.289	-.738	1.000	.054
	HW Time Spent Daily	-.125	-.048	.054	1.000

(table continues)

Table 3 *(continued)*

Children Overall Self-Regulation at Home Correlated with Children's Background Factor (n=394)

	Variables	Children Overall Self-Regulation at Home	Number of Children 1 0=Others 1=One Child	Number of Children 3 0=Others 1=Three Children or More	Child Birth Order 2 0=Others 1=Second Child	Child Birth Order 3 0=Others 1=Third Child or After
Sig. (1-tailed)	Children Overall Self-Regulation at Home	.	.111	.282	.006	.117
	Number of Children 1 0=Others 1=One Child	.111	.	.000	.000	.001
	Number of Children 3 0=Others 1=Three Children or More	.282	.000	.	.001	.000
	Child Birth Order 2 0=Others 1=Second Child	.006	.000	.001	.	.000
	Child Birth Order 3 0=Others 1=Third Child or After	.117	.001	.000	.000	.
	Attended Months	.030	.251	.014	.064	.172
	School Went 1 0=Others 1=Preschool	.091	.385	.250	.156	.340
	School Went 2 0=Others 1=Kindergarten	.224	.428	.399	.032	.455
	HW Time Spent Daily	.000	.119	.188	.465	.259

(table continues)

Table 3 *(continued)*

Children Overall Self-Regulation at Home Correlated with Children's Background Factor (n=394)

	Variables	Attended Months	School Went 1 0=Others 1=Preschool	School Went 2 0=Others 1=Kindergarten	HW Time Spent Daily
Sig. (1-tailed)	Children Overall Self-Regulation at Home	.030	.091	.224	.000
	Number of Children 1 0=Others 1=One Child	.251	.385	.428	.119
	Number of Children 3 0=Others 1=Three Children or More	.014	.250	.399	.188
	Child Birth Order 2 0=Others 1=Second Child	.064	.156	.032	.465
	Child Birth Order 3 0=Others 1=Third Child or After	.172	.340	.455	.259
	Attended Months	.	.000	.000	.006
	School Went 1 0=Others 1=Preschool	.000	.	.000	.173
	School Went 2 0=Others 1=Kindergarten	.000	.000	.	.144
	HW Time Spent Daily	.006	.173	.144	.

Table 4

Children's Overall Self-Regulation at School Correlated with Head Teachers' Interactions with Parents Factor (n=427)

	Variables	Children's Overall Self-Regulation at School	Contact Frequency	Contact Way 1 0=Others 1=Oral	Contact Way 2 0=Others 1=Written	Contact Way 3 0=Others 1=Oral & Written
Pearson Correlation	Children's Overall Self-Regulation at School	1.000	.173	.037	-.005	-.035
	Contact Frequency	.173	1.000	.058	.121	-.234
	Contact Way 1 0=Others 1=Oral	.037	.058	1.000	-.184	-.734
	Contact Way 2 0=Others 1=Written	-.005	.121	-.184	1.000	-.435
	Contact Way 3 0=Others 1=Oral & Written	-.035	-.234	-.734	-.435	1.000
	Contact Content 1 0=Others 1=Schoolwork	.049	.053	.070	.135	-.121
	Contact Content 2 0=Others 1=Behavior	.000	.077	.054	.054	-.052
	Contact Content 3 0=Others 1=Schoolwork & Behavior	-.173	-.313	-.163	-.155	.300
	Participate Frequency	-.042	.315	-.022	.200	-.169

(table continues)

Table 4 *(continued)*

Children's Overall Self-Regulation at School Correlated with Head Teachers' Interactions with Parents Factor (n=427)

	Variables	Contact Content 1 0=Others 1=Schoolwork	Contact Content 2 0=Others 1=Behavior	Contact Content 3 0=Others 1=Schoolwork & Behavior	Participate Frequency
Pearson Correlation	Children's Overall Self-Regulation at School	.049	.000	-.173	-.042
	Contact Frequency	.053	.077	-.313	.315
	Contact Way 1 0=Others 1=Oral	.070	.054	-.163	-.022
	Contact Way 2 0=Others 1=Written	.135	.054	-.155	.200
	Contact Way 3 0=Others 1=Oral & Written	-.121	-.052	.300	-.169
	Contact Content 1 0=Others 1=Schoolwork	1.000	-.239	-.361	.080
	Contact Content 2 0=Others 1=Behavior	-.239	1.000	-.596	-.043
	Contact Content 3 0=Others 1=Schoolwork & Behavior	-.361	-.596	1.000	-.093
	Participate Frequency	.080	-.043	-.093	1.000

(table continues)

Table 4 *(continued)*

Children's Overall Self-Regulation at School Correlated with Head Teachers' Interactions with Parents Factor (n=427)

	Variables	Children's Overall Self-Regulation at School	Contact Frequency	Contact Way 1 0=Others 1=Oral	Contact Way 2 0=Others 1=Written	Contact Way 3 0=Others 1=Oral & Written
Sig. (1-tailed)	Children's Overall Self-Regulation at School	.	.000	.225	.460	.233
	Contact Frequency	.000	.	.114	.006	.000
	Contact Way 1 0=Others 1=Oral	.225	.114	.	.000	.000
	Contact Way 2 0=Others 1=Written	.460	.006	.000	.	.000
	Contact Way 3 0=Others 1=Oral & Written	.233	.000	.000	.000	.
	Contact Content 1 0=Others 1=Schoolwork	.156	.135	.074	.003	.006
	Contact Content 2 0=Others 1=Behavior	.499	.055	.135	.132	.143
	Contact Content 3 0=Others 1=Schoolwork & Behavior	.000	.000	.000	.001	.000
	Participate Frequency	.194	.000	.326	.000	.000

(table continues)

Table 4 *(continued)*

Children's Overall Self-Regulation at School Correlated with Head Teachers' Interactions with Parents Factor (n=427)

	Variables	Contact Content 1 0=Others 1=Schoolwork	Contact Content 2 0=Others 1=Behavior	Contact Content 3 0=Others 1=Schoolwork & Behavior	Participate Frequency
Sig. (1-tailed)	Children's Overall Self-Regulation at School	.156	.499	.000	.194
	Contact Frequency	.135	.055	.000	.000
	Contact Way 1 0=Others 1=Oral	.074	.135	.000	.326
	Contact Way 2 0=Others 1=Written	.003	.132	.001	.000
	Contact Way 3 0=Others 1=Oral & Written	.006	.143	.000	.000
	Contact Content 1 0=Others 1=Schoolwork	.	.000	.000	.049
	Contact Content 2 0=Others 1=Behavior	.000	.	.000	.186
	Contact Content 3 0=Others 1=Schoolwork & Behavior	.000	.000	.	.027
	Participate Frequency	.049	.186	.027	.

Table 5

Children's Overall Self-Regulation at School Correlated with Head Teachers' Interactions with Children Factor (n=429)

	Variables	Children's Overall Self-Regulation at School	Time Help	Pay Attention	Face to Face Com.
Pearson Correlation	Children's Overall Self-Regulation at School	1.000	-.686	-.700	-.130
	Time Help	-.686	1.000	.450	.226
	Pay Attention	-.700	.450	1.000	.276
	Face to Face Com.	-.130	.226	.276	1.000
	Spend Time	-.641	.593	.672	.299
	Give Reward	.366	-.094	-.229	.224
	Use Punishment	-.540	.267	.742	.239
	Need to Remind	-.727	.599	.531	.125
Sig. (1-tailed)	Children's Overall Self-Regulation at School	.	.000	.000	.004
	Time Help	.000	.	.000	.000
	Pay Attention	.000	.000	.	.000
	Face to Face Com.	.004	.000	.000	.
	Spend Time	.000	.000	.000	.000
	Give Reward	.000	.026	.000	.000
	Use Punishment	.000	.000	.000	.000
	Need to Remind	.000	.000	.000	.005

(table continues)

Table 5 *(continued)*

Children's Overall Self-Regulation at School Correlated with Head Teachers' Interactions with Children Factor (n=429)

	Variables	Spend Time	Give Reward	Use Punishment	Need to Remind
Pearson Correlation	Children's Overall Self-Regulation at School	-.641	.366	-.540	-.727
	Time Help	.593	-.094	.267	.599
	Pay Attention	.672	-.229	.742	.531
	Face to Face Com.	.299	.224	.239	.125
	Spend Time	1.000	-.070	.528	.551
	Give Reward	-.070	1.000	-.215	-.157
	Use Punishment	.528	-.215	1.000	.455
	Need to Remind	.551	-.157	.455	1.000
Sig. (1-tailed)	Children's Overall Self-Regulation at School	.000	.000	.000	.000
	Time Help	.000	.026	.000	.000
	Pay Attention	.000	.000	.000	.000
	Face to Face Com.	.000	.000	.000	.005
	Spend Time	.	.073	.000	.000
	Give Reward	.073	.	.000	.001
	Use Punishment	.000	.000	.	.000
	Need to Remind	.000	.001	.000	.

Table 6

Children Overall Self-Regulation at Home Correlated with Parents' Interactions with Head Teachers Factor (n=421)

	Variables	Children Overall Self-Regulation at Home	Contact Frequency	Contact Way 1 0=Others 1=Oral	Contact Way 2 0=Others 1=Written	Contact Way 3 0=Others 1=Oral & Written
Pearson Correlation	Children Overall Self-Regulation at Home	1.000	.078	-.001	.045	-.048
	Contact Frequency	.078	1.000	-.058	-.069	-.206
	Contact Way 1 0=Others 1=Oral	-.001	-.058	1.000	-.183	-.611
	Contact Way 2 0=Others 1=Written	.045	-.069	-.183	1.000	-.390
	Contact Way 3 0=Others 1=Oral & Written	-.048	-.206	-.611	-.390	1.000
	Contact Content 1 0=Others 1=Schoolwork	-.036	.025	.007	.117	-.018
	Contact Content 2 0=Others 1=Behavior	.077	.070	.040	.118	.038
	Contact Content 3 0=Others 1=Schoolwork & Behavior	-.082	-.364	.089	-.089	.183
	Participate Frequency	-.157	.235	-.139	.137	-.049

(table continues)

Table 6 *(continued)*

Children Overall Self-Regulation at Home Correlated with Parents' Interactions with Head Teachers Factor (n=421)

	Variables	Contact Content 1 0=Others 1=Schoolwork	Contact Content 2 0=Others 1=Behavior	Contact Content 3 0=Others 1=Schoolwork & Behavior	Participate Frequency
Pearson Correlation	Children Overall Self-Regulation at Home	-.036	.077	-.082	-.157
	Contact Frequency	.025	.070	-.364	.235
	Contact Way 1 0=Others 1=Oral	.007	.040	.089	-.139
	Contact Way 2 0=Others 1=Written	.117	.118	-.089	.137
	Contact Way 3 0=Others 1=Oral & Written	-.018	.038	.183	-.049
	Contact Content 1 0=Others 1=Schoolwork	1.000	-.198	-.261	.001
	Contact Content 2 0=Others 1=Behavior	-.198	1.000	-.672	.007
	Contact Content 3 0=Others 1=Schoolwork & Behavior	-.261	-.672	1.000	-.101
	Participate Frequency	.001	.007	-.101	1.000

(table continues)

Table 6 *(continued)*

Children Overall Self-Regulation at Home Correlated with Parents' Interactions with Head Teachers Factor (n=421)

	Variables	Children Overall Self-Regulation at Home	Contact Frequency	Contact Way 1 0=Others 1=Oral	Contact Way 2 0=Others 1=Written	Contact Way 3 0=Others 1=Oral & Written
Sig. (1-tailed)	Children Overall Self-Regulation at Home	.	.055	.488	.177	.162
	Contact Frequency	.055	.	.118	.077	.000
	Contact Way 1 0=Others 1=Oral	.488	.118	.	.000	.000
	Contact Way 2 0=Others 1=Written	.177	.077	.000	.	.000
	Contact Way 3 0=Others 1=Oral & Written	.162	.000	.000	.000	.
	Contact Content 1 0=Others 1=Schoolwork	.232	.306	.446	.008	.357
	Contact Content 2 0=Others 1=Behavior	.057	.076	.208	.008	.220
	Contact Content 3 0=Others 1=Schoolwork & Behavior	.046	.000	.034	.035	.000
	Participate Frequency	.001	.000	.002	.003	.158

(table continues)

Table 6 *(continued)*

Children Overall Self-Regulation at Home Correlated with Parents' Interactions with Head Teachers Factor (n=421)

	Variables	Contact Content 1 0=Others 1=Schoolwork	Contact Content 2 0=Others 1=Behavior	Contact Content 3 0=Others 1=Schoolwork & Behavior	Participate Frequency
Sig. (1-tailed)	Children Overall Self-Regulation at Home	.232	.057	.046	.001
	Contact Frequency	.306	.076	.000	.000
	Contact Way 1 0=Others 1=Oral	.446	.208	.034	.002
	Contact Way 2 0=Others 1=Written	.008	.008	.035	.003
	Contact Way 3 0=Others 1=Oral & Written	.357	.220	.000	.158
	Contact Content 1 0=Others 1=Schoolwork	.	.000	.000	.492
	Contact Content 2 0=Others 1=Behavior	.000	.	.000	.442
	Contact Content 3 0=Others 1=Schoolwork & Behavior	.000	.000	.	.019
	Participate Frequency	.492	.442	.019	.

Table 7

Children Overall Self-Regulation at Home Correlated with Parents' Interactions with Children Factor (n=423)

	Variables	Children Overall Self-Regulation at Home	Time Help	Pay Attention	Face to Face Com.
Pearson Correlation	Children Overall Self-Regulation at Home	1.000	-.286	-.316	.178
	Time Help	-.286	1.000	.390	.089
	Pay Attention	-.316	.390	1.000	.059
	Face to Face Com.	.178	.089	.059	1.000
	Set Rules	.015	.151	.237	.335
	Spend Time	.084	.291	.159	.325
	Give Reward	.214	.099	.059	.444
	Use Punishment	-.198	.217	.263	.082
	Need to Remind	-.437	.367	.309	.038
Sig. (1-tailed)	Children Overall Self-Regulation at Home	.	.000	.000	.000
	Time Help	.000	.	.000	.034
	Pay Attention	.000	.000	.	.113
	Face to Face Com.	.000	.034	.113	.
	Set Rules	.376	.001	.000	.000
	Spend Time	.043	.000	.001	.000
	Give Reward	.000	.021	.112	.000
	Use Punishment	.000	.000	.000	.046
	Need to Remind	.000	.000	.000	.215

(table continues)

Table 7 *(continued)*

Children Overall Self-Regulation at Home Correlated with Parents' Interactions with Children Factor (n=423)

	Variables	Set Rules	Spend Time	Give Reward	Use Punishment	Need to Remind
Pearson Correlation	Children Overall Self-Regulation at Home	.015	.084	.214	-.198	-.437
	Time Help	.151	.291	.099	.217	.367
	Pay Attention	.237	.159	.059	.263	.309
	Face to Face Com.	.335	.325	.444	.082	.038
	Set Rules	1.000	.312	.421	.382	.184
	Spend Time	.312	1.000	.454	.258	.143
	Give Reward	.421	.454	1.000	.198	.057
	Use Punishment	.382	.258	.198	1.000	.352
	Need to Remind	.184	.143	.057	.352	1.000
Sig. (1-tailed)	Children Overall Self-Regulation at Home	.376	.043	.000	.000	.000
	Time Help	.001	.000	.021	.000	.000
	Pay Attention	.000	.001	.112	.000	.000
	Face to Face Com.	.000	.000	.000	.046	.215
	Set Rules	.	.000	.000	.000	.000
	Spend Time	.000	.	.000	.000	.002
	Give Reward	.000	.000	.	.000	.123
	Use Punishment	.000	.000	.000	.	.000
	Need to Remind	.000	.002	.123	.000	.

Appendix S

Regression Analysis

Table 1

Children's Overall Self-Regulation at Home Regressed on Parental Background Factors by Children Genders

Variable	Male		Female	
	Beta	*Sig.*	Beta	*Sig.*
Constant		.000		.000
Gender 0=Male 1=Female	.027	.724	.028	.724
Age	.067	.353	.066	.407
Highest Education	-.005	.958	-.075	.440
Occupation 1 0=Others 1= Gov. Employee	.035	.735	.032	.794
Occupation 2 0=Others 1=Private Manager	-.033	.747	.026	.815
Occupation 3 0=Others 1=Private Staff	.113	.270	-.017	.878
Occupation 4 0=Others 1= House Wife	-.093	.409	-.098	.408
Income	.097	.256	.080	.391
Caregiver 0=Others 1=Parents	.149	.037	.106	.154
	Model Summary: *F*=1.561 *df*=9/196 *p*=.129 *R* Square=.067 Adjusted *R* Square=.024		Model Summary: *F*=.702 *df*=9/183 *p*=.706 *R* Square=.033 Adjusted *R* Square=-.014	

Table 2

Children's Overall Self-Regulation at School Regressed on Children Background Factor by Children Genders

Variable	Male		Female	
	Beta	*Sig.*	Beta	*Sig.*
Constant		.000		.000
Number of Children 1 0=Others 1=One Child	-.071	.381	-.089	.291
Number of Children 3 0=Others 1=Three Children or More	.037	.783	-.165	.116
Child Birth Order 2 0=Others 1=Second Child	.111	.179	-.034	.689
Child Birth Order 3 0=Others 1=Third Child or After	.017	.899	.118	.265
Attended Months	.126	.082	.119	.133
School Went 1 0=Others 1=Preschool	.022	.831	-.198	.074
School Went 2 0=Others 1=Kindergarten	-.029	.779	-.045	.693
HW Time Spent Daily	-.161	.022	-.061	.411
	Model Summary: *F*=1.980 *df*=8/198 *p*=.051 *R* Square=.074 Adjusted *R* Square=.037		Model Summary: *F*=1.327 *df*=8/176 *p*=.233 *R* Square=.057 Adjusted *R* Square=.014	

Table 3

Children's Overall Self-Regulation at Home Regressed on Children's Background Factor by Children Genders

Variable	Male		Female	
	Beta	*Sig.*	Beta	*Sig.*
Constant		.000		.000
Number of Children 1 0=Others 1=One Child	.000	.999	.034	.684
Number of Children 3 0=Others 1=Three Children or More	-.013	.910	-.069	.500
Child Birth Order 2 0=Others 1=Second Child	.197	.013	.134	.118
Child Birth Order 3 0=Others 1=Third Child or After	.148	.194	.154	.139
Attended Months	.101	.144	.008	.914
School Went 1 0=Others 1=Preschool	.008	.934	.171	.114
School Went 2 0=Others 1=Kindergarten	-.017	.863	.127	.253
HW Time Spent Daily	-.285	<.001	-.223	.003
	Model Summary: *F*=4.419 *df*=8/202 *p*<.001 *R* Square=.149 Adjusted *R* Square=.115		Model Summary: *F*=1.885 *df*=8/173 *p*=.065 *R* Square=.080 Adjusted *R* Square=.038	

Table 4

Children's Overall Self-Regulation at School Regressed on Head Teachers' Interactions with Parents Factor by Children Genders

Variable	Male		Female	
	Beta	*Sig.*	Beta	*Sig.*
Constant		.000		.000
Contact Frequency	.153	.038	.063	.437
Contact Way 1 0=Others 1=Oral	.300	.221	.220	.183
Contact Way 2 0=Others 1=Written	.230	.154	.053	.696
Contact Way 3 0=Others 1=Oral & Written	.316	.237	.311	.115
Contact Content 1 0=Others 1=Schoolwork	-.180	.127	-.202	.038
Contact Content 2 0=Others 1=Behavior	-.473	.002	-.132	.208
Contact Content 3 0=Others 1=Schoolwork & Behavior	-.551	.001	-.287	.017
Participate Frequency	-.179	.016	-.031	.676
	Model Summary: *F*=3.620 *df*=8/208 *p*=.001 *R* Square=.122 Adjusted *R* Square=.088		Model Summary: *F*=1.673 *df*=8/196 *p*=.107 *R* Square=.064 Adjusted *R* Square=.026	

Table 5

Children's Overall Self-Regulation at School Regressed on Head Teachers' Interactions with Children Factor by Children Genders

Variable	Male		Female	
	Beta	*Sig.*	Beta	*Sig.*
Constant		.000		.000
Time Help	-.330	<.001	-.323	<.001
Pay Attention	-.258	<.001	-.291	<.001
Face to Face Com.	.020	.612	.094	.017
Spend Time	-.141	.014	-.018	.705
Give Reward	.206	<.001	.218	<.001
Use Punishment	.000	.999	-.035	.422
Need to Remind	-.303	<.001	-.296	<.001
	Model Summary: *F*=94.047 *df*=7/210 *p*<.001 *R* Square=.758 Adjusted *R* Square=.750		Model Summary: *F*=83.804 *df*=7/198 *p*<.001 *R* Square=.748 Adjusted *R* Square=.739	

Table 6

Children's Overall Self-Regulation at Home Regressed on Parents' Interactions with Head Teachers Factor by Children Genders

Variable	Male		Female	
	Beta	*Sig.*	Beta	*Sig.*
Constant		.000		.000
Contact Frequency	.159	.046	.043	.624
Contact Way 1 0=Others 1=Oral	.129	.562	-.023	.928
Contact Way 2 0=Others 1=Written	.181	.260	.032	.876
Contact Way 3 0=Others 1=Oral & Written	.132	.610	.031	.912
Contact Content 1 0=Others 1=Schoolwork	-.095	.452	-.130	.431
Contact Content 2 0=Others 1=Behavior	-.060	.795	-.070	.784
Contact Content 3 0=Others 1=Schoolwork & Behavior	-.172	.492	-.065	.802
Participate Frequency	-.248	<.001	-.114	.138
	Model Summary: *F*=2.552 *df*=8/210 *p*=.011 *R* Square=.089 Adjusted *R* Square=.054		Model Summary: *F*=.555 *df*=8/192 *p*=.814 *R* Square=.023 Adjusted *R* Square=-.018	

Table 7

Children's Overall Self-Regulation at Home Regressed on Parents' Interactions with Children Factor by Children Genders

Variable	Male		Female	
	Beta	*Sig.*	Beta	*Sig.*
Constant		.000		.000
Time Help	-.160	.011	-.082	.259
Pay Attention	-.185	.003	-.116	.095
Face to Face Com.	.133	.038	.063	.370
Set Rules	.037	.584	.047	.527
Spend Time	.072	.256	.112	.140
Give Reward	.093	.186	.251	.001
Use Punishment	-.079	.211	-.092	.203
Need to Remind	-.403	<.001	-.306	<.001
	Model Summary: *F*=17.172 *df*=8/211 *p*<.001 *R* Square=.394 Adjusted *R* Square=.371		Model Summary: *F*=8.631 *df*=8/193 *p*<.001 *R* Square=.264 Adjusted *R* Square=.233	

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