THE EFFECT OF THE PARENT TRAINING PROGRAM ALONG WITH THE LIFE SKILLS TRAINING PROGRAM ON THE LIFE SKILLS OF THE FIFTH GRADERS

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ABSTRACT

This quasi-experimental study aimed at examining the effect of a parent training program along with a life skills training program on parenting skills, parents' cognition, and school-age children's life skills. A school was purposively selected and then two classes of the 5th grade were randomly assigned into two groups. Twenty-six students and their parents were in the experimental group and 27 students and their parents were in the comparison group. All met the inclusion criteria and consented to participate in the study. All students were recruited into the life skills training program, while only parents in the experimental group were recruited into the parent training program. Those programs were developed based on the theory of planned behavior and interactive group techniques. Instruments for data collection included a life skills questionnaire for the children and a child life skills development questionnaire for parents. Data were collected from all participants prior to the interventions and at the first week, the first month, and the third month after the intervention. Analysis of covariance (ANCOVA) and repeated measures ANOVA were used to test the effect of the parent training program.

The results demonstrated no effect of the parent training program on child life skills, parents' attitude, or subjective norm, whereas positive effects were seen on parenting skills (ES=1.22), parenting self-efficacy (ES=0.65), and parents' intention (ES=0.46). These findings suggest that this intervention may need a longer duration for improving child life skills. Recommendations for further research include a larger sample size and longer time for measurement, which would contribute to more comprehensive study outcomes.

KEY WORDS: LIFE SKILLS / LIFE SKILLS TRAINING PROGRAM / SCHOOL-AGE CHILDREN / PARENTS

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ผลของโปรแกรมอบรมพ่อแม่เพื่อพัฒนาทักษะชีวิตในเด็กวัยเรียนร่วมกับโปรแกรมอบรมทักษะชีวิตในเด็กวัยเรียนต่อทักษะชีวิตของนักเรียนชั้นประถมศึกษาปีที่ 5

THE EFFECT OF THE PARENT TRAINING PROGRAM ALONG WITH THE LIFE SKILLS TRAINING PROGRAM ON THE LIFE SKILLS OF THE FIFTH GRADERS

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บทคัดย่อ

การศึกษาครั้งนี้มีวัตถุประสงค์เพื่อศึกษาผลของโปรแกรมอบรมพ่อแม่เพื่อพัฒนาทักษะชีวิตร่วมกับโปรแกรมอบรมทักษะชีวิตต่อทักษะชีวิตของนักเรียนชั้นประถมศึกษาปีที่ 5 ทักษะพ่อแม่ และการรับรู้ต่อการพัฒนาทักษะชีวิตในบุตรวัยเรียน กลุ่มตัวอย่างถูกเลือกโดยวิธีการสุ่มอย่างเฉพาะ เจาะจง นักเรียนชั้นประถมศึกษาปีที่ 5 พร้อมทั้งพ่อแม่ที่มีคุณสมบัติตรงกับปัจจัยการคัดเข้าและยินยอมเข้าร่วมโปรแกรมถูกสุ่มเข้ากลุ่มทดลองซึ่งประกอบด้วยนักเรียน 26 คนและพ่อแม่ และกลุ่มเปรียบเทียบ 27 คนและพ่อแม่ นักเรียนทั้ง 2 กลุ่ม ได้รับการอบรมทักษะชีวิตในขณะที่เฉพาะกลุ่มพ่อแม่ในกลุ่มทดลองเท่านั้นที่ได้รับการอบรมพ่อแม่เพื่อพัฒนาทักษะชีวิตในบุตรวัยเรียน โปรแกรมทั้งสองดังกล่าวถูกสร้างขึ้นบนกรอบแนวคิดของทฤษฎีพฤติกรรมตามแผน การศึกษาครั้งนี้ทำการเก็บข้อมูล ก่อนได้รับโปรแกรมและภายหลังโปรแกรมสิ้นสุดแล้วที่ 1 สัปดาห์ 1 เดือน และ 3 เดือน และการวิเคราะห์ข้อมูลส่วนบุคคลด้วยสถิติเชิงพรรณนา และวิเคราะห์ผลของโปรแกรมด้วยสถิติวิเคราะห์ความแปรปรวนร่วม ความแปรแปรนทางเดียวและสองทางแบบวัดซ้ำ

ผลการวิจัยพบว่า ภายหลังสิ้นสุดการทดลอง คะแนนทักษะชีวิตในนักเรียนทั้งสองกลุ่มไม่แตกต่างกัน ในขณะที่คะแนนทักษะพ่อแม่ (ES=1.22) ความสามารถของพ่อแม่ (ES=0.65) และความตั้งใจในการพัฒนาทักษะชีวิตในบุตรวัยเรียนของพ่อแม่ (ES=0.46) ในกลุ่มทดลองสูงกว่ากลุ่มเปรียบเทียบอย่างมีนัยสำคัญ เมื่อภายหลังโปรแกรมสิ้นสุดแล้ว 3 เดือน จากผลการศึกษาแสดงให้เห็นว่า โปรแกรมการพัฒนาทักษะชีวิตที่ศึกษานี้ อาจต้องการเวลาที่ยาวนานขึ้นในการปรับพัฒนาทักษะชีวิตในเด็กวัยนี้ ข้อเสนอแนะในการศึกษาครั้งต่อไปคือการใช้จำนวนกลุ่มตัวอย่างที่มากขึ้นและใช้การวัดผลในระยะยาว

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CHAPTER I
INTRODUCTION

1.1 Background and significance of the study

The proportion of child behavioral problems and risk behaviors has increased from the past decade throughout the 21st century. Several existing data represented a number of interrelated social problems having their roots from these behavioral problems in childhood, including aggressive behavior, delinquency, smoking, and drug and alcohol abuse (Botvin & Griffin, 2004; Dishion & Patterson, 2006; WHO, 2003). The lack of competencies in adapting and dealing with situations and problems is a frequently cited cause of negative behavioral children and adolescents (Coie, 1996; WHO, 1997). The developmental epidemiologists suggest that children have not attained the proper practice in essential abilities for managing their lives, particularly decision-making and critical thinking ability by considering information and behavior consequences, and ability in recognition of strong feelings in one's self and others to modulate one's own behavioral response, resolve disagreements, and follow rules in a productive and healthy manner (Coie, 1996; WHO, 1997). In addition, these problems also influence on not only the child's health but also the costly problem with negative consequences for individuals, their families and friends, and their community (Brotman & Gouley, 2006; WHO, 2003). Despite the increased awareness of the severity of these problems, child problem behaviors still increase. Consequently, dealing with these problems is an urgent issue facing society.

Likewise, Thailand is encountering those emotional and behavioral problems in children and adolescents similar to other countries. Child behavioral problems have been dominant in the public interest for the past few years. They have increased in prevalence among adolescents since the past decade until now. A study of health risk behaviors among Thai students in grades 7-12 indicated that cigarette smoking was the most prevalent health risk behavior among this age group (Bunjaroonsilp, 2005). A nation- wide study on health behaviors in Thailand in 2006-

2007 reported that 60% of the students had some incidence of cigarette smoking and one third of smokers are less than 13 years old. Moreover, according to the national statistics, it was reported that 55,648 pregnant women were less than 15 years old in 2001-2009. Among this age group, 60 mothers were 10 years old. In addition, violent and aggressive behaviors are a noticeable trend in our children and present an escalating public health problem in our society, according to the Bureau of Social Mental Health, Department of Mental Health, Thailand (2010). Thai children, particularly adolescents have a history of assault against others more than 3,000 times in 2009 and 1,000 times in 2010 (Bureau of Social Mental Health, 2010). Some psychologists have identified violence in children resulting from child-rearing inadequacies and imitative behavior from the media and internet. Correspondingly, the Department of Mental Health (2008) reported 10.6% of Thai college students were internet addicts, especially Thai adolescents who spent 4-5 hrs/day for games online, computer games, and internet surfing. All of these problems contribute to the development of the serious and costly consequences in children's life and are also associated with their quality of life and their adulthood.

Children who display serious problems in one of these areas frequently develop problems in other areas too. Many studies indicate that these serious problems can cause diseases that are strongly correlated with each other (Botvin & Griffin, 2002; Chamberlain et al., 2008; WHO, 2003). To solve these problems, the Thai Government has placed a high priority on prevention and control initiatives. Many strategies based on the Tenth National Health Development Plan had been employed to help our children include early prevention. Early prevention as a strategy is an idea that has been prominent for more than 10 years in our country (Department of Mental Health, 2008). To ensure the success of implementation, early prevention and collaboration are required to address the root of these social problems that are considered to be the major causes of our children's problems.

The major causes of child problem behavior are a lack of interpersonal skills, and inappropriate child-rearing practices and lack of parenting skills (Ary et al., 1999; Chamberlain et al., 2008; Wilson, Gottfredson, & Najaka, 2001; Wongrajit et al., 2007). Deficits in interpersonal skills and social skills can have long term effects on children causing them to be poorly competent and highly vulnerable to risk factors,

and vicious and serious situations (Botvin, Griffin, Paul, & Macaulay, 2003; Epstein, Zhou, Bang, & Botvin, 2007; WHO, 2003). On the other hand, lack of parenting skills can provide deep impacts on children particularly regarding their behavior. Changing the parenting behaviors will rearrange the family's atmosphere and environment that affect on changing the child's behaviors of interest. Children learn interpersonal skills and social skills directly and indirectly from the family by responding to children in an appropriate manner, monitoring, mentoring to support and encourage good behavior, modeling in positive examples for children, and preventing risky behavior or problems (Borkowski, Ramey, & Stile, 2002; Epstein et al., 2007).

Literature reviews have indicated that inconsistent, erratic and harsh parenting practices, excessive levels of parental control, and parent-child conflict are parental factors that lead to the development of child problem behaviors (Barrera & Hockenberry, 2007; Chamberlain et al., 2008; Cleveland, Feinberg, Bontempo, & Greenberg, 2008; Kuendig & Kuntsche, 2006). For example, the study of Cleveland and colleagues (2008) and the study of Kuendig and Kuntsche (2006) have tended to be consistent with parental substance use to be an important predictor of adolescent substance use. Consistent with Chamberlain and colleague's longitudinal study (2008), it has been demonstrated that positive reinforcement from parents mediated conflicts and could significantly reduce child behavioral problems. Summarily, children raised by those who have a lack of parenting skills are more likely to make poor decisions with their own children and become a difficult matter to handle, since they do not have role models for dealing with the differential situations in their life.

Efforts are now increasing to prevent these problems early for reducing the prevalence of serious future problems. Optimally, early prevention programs are most successful before full-scale problems have emerged such as school-based programs that are delivered in a group format at preschool or school (August et al., 2004; Borkowski, Smith, & Akai, 2007). Strong evidence for prevention strategies found that early intervention programs should begin as early as possible to minimize problematic behaviors and maximize effective competence (August et al., 2004; Gray & McCormick, 2005; Webster-Stratton & Reid, 2004). Empirical evidence does exist showing that prevention approaches targeting elementary school students during

grades 3rd and 6th provided positive effects on drug or substance use knowledge, intentions, and behaviors, and were extended throughout adolescence (Price, Beach, Everett, Tellijohann, & Lewis, 1998; Sarvela, Monge, Shannon, & Nawrot, 1999; Shope, Dielman, Butchart, Campanelli, & Kloska, 1992). This suggests that early intervention can reduce the chances that children might develop behavioral problems as they reach adolescence and adulthood.

Within the escalation of behavioral problems in childhood, the school-age period appears to be at an increased risk for engaging in health risk behaviors (Brotman & Gouley, 2006). In this period, children have progressive changes in their biology, emotions, and thought processes (Piaget, 1969; WHO, 1997). They mostly appear to engage in many behavioral problems, although the full-scale problems have not emerged in this period (Brotman & Gouley, 2006). Optimally, this suggests that school-age years should be an important window for intervention that will promote and maintain health before encountering the various risk factors in society. Fortunately, evidence suggests that life skills development should be conducted for preparing children to face those risk factors, including delinquent or destructive behaviors, especially in children who lack interpersonal skills (WHO, 2003; Wilson et al., 2001). Life skills training (LST) can help children not only acquire knowledge, but also develop relevant skills to enable them to reduce the risk of behaviors and negative consequences (Botvin et al., 2003; Botvin, Griffin, & Nichols, 2006; Park, 2006; Zollinger et al., 2003).

LST is one of the best alternative strategies for the promotion of healthy child and adolescent development. This program focuses on child development in social competencies, self-management skills, drug abuse prevention and general health promotion. The major goal of LST is to have students learn ways to avoid high-risk situations and handle social pressure in these and other situations. More than a decade and a half of efficacy research on the LST programs, the program has consistently shown a positive result in health risk behavior prevention, including drinking, smoking, drug use, and HIV transmission among youth and more than one half of effective programs start before or in early stages of development of those problems in the target population. It has become critical to support effective skills and encourage the growth of cognitive skills to face risky situations, to buffer against the

development of serious future problems, and to prevent health risk behaviors (Botvin & Griffin, 2002; WHO, 1997). It is believed that LST often produces positive changes in decision-making and critical thinking ability by considering information and behavior consequences, understanding others with empathy, and coping with managing their life in a healthy and productive manner.

In Thailand, children receive the LST in schools that are integrated in the usual curriculum from primary school level to middle and high school levels. Life skills are imparted as knowledge or the information contained within a knowledge-based comprehensive program (Department of Mental Health, 2003; Hongpan, 2000). The learning process provides only a few practices and uses less interactive techniques (Hongpan, 2000). Apparently, a number of life skills development programs in Thai children and adolescent studies have found that specific life skills were selected for use in health risks prevention (e.g., sexual behavior, smoking, drinking, and substance abuse). However, about it has not been determined whether the LST can actually ensure the successfulness of sustainable positive outcomes for universal prevention or whether it can prevent general risk behaviors despite the fact that these programs do not teach all life skill categories.

Based on the etiology of child behavioral problems, inappropriate child-rearing and parenting practices appear to be the major causes of behavioral problems in children. Several aspects of parenting have been related to child behavioral problems, including inconsistent and harsh discipline, poor parent-child relations, low parental involvement, inappropriate parental modeling, and poor parental monitoring (Dick et al., 2007; Harakeh, Scholte, Vermulst, Vries, & Engels, 2004). The family appears to be an important context for the development of beliefs, attitudes, and behaviors through children. Moreover, parents' values particular influence the shaping of fundamental child beliefs and significantly affect child's development of prosocial skills and behaviors (Barrera & Hockenberry, 2007). Poorly competent parents and inadequate parenting practices (i.e., lack of parental monitoring) are parental limitations where parents cannot advise, support and practice as role models to their children (Botvin & Griffin, 2004; Kumpfer & Alvarado, 1998; Rowe, Gómez, & Liddle, 2007; Stormshak, Bierman, McMahon, Lengua, & Conduct Problem Prevention Research Group, 2000).

Appropriately, training in parenting skills support parents to perform appropriate parenting that positively affects on reducing child behavioral problems. The literature review supports that child-focused prevention approaches are effective, but have very small positive impacts or small effect sizes in preventing or reducing drug use (Cook, Gresham, Kern, Barreras, & Crews, 2008; Park, 2006; Wilson et al., 2001). Rather, working with the parents and family is more effective. Combining prevention programs with family strengthening approaches has been found to produce an additive effect, increasing the effect sizes for positive outcomes (McCart, Priester, Hobart Davies, & Azen, 2006). In addition, meta-analyses studies indicate that family approaches have effect sizes on the average of nine times larger than child-only interventions in reducing child behavioral problems through a key mediator: parenting competencies (Kumpfer, Alvarado, & Whiteside, 2003; Tobler & Stratton, 1997).

Improvement in parenting practices for participating in preventive programs is viewed as being the mediating effect of life skills resources to support the reduction of child behavioral problems (Desrichard, Roché, & Bégue, 2007; Petrie, Bunn, & Byrne, 2007; Reisch, Anderson, & Krueger, 2006; Rowe et al., 2007; Woolfenden, Williams, & Peat, 2002). The theoretical rationale is the belief that family functioning, structure, and values have a significant impact on child competence. Thus, in order to increase and sustain the effectiveness of child preventive programs, combining parent training programs with child LST programs is very acceptable and appropriate for best practices supported by scientific findings.

The theory of planned behavior (TPB) is used as an organizing framework for family-based intervention on life skills development. The TPB provides insight into the mechanisms of parent-child attachment and the influence of the family. It clearly explains the relationship between parent's attitudes, beliefs, intentions and behaviors and comprises the same variables in their child. Parents often provide the greatest quantity of learning experiences to children through the mechanisms, including modeling, supervision, information transfer, and reinforcement or avoidant behaviors throughout child development (Ajzen, 1991; Fishbein & Ajzen, 2010). Especially, the most effective child normative beliefs regarding parents had strong mediation effects on child behaviors by their approval or disapproval on those child behaviors. These effects refer to children's perceptions about what the parents believe

or value (Harakeh et al., 2004; Hutchinson & Wood, 2007; Villarruel, Loveland-Cherry, Cabriales, Ronis, & Zhou, 2008). The significant changes in parents' intention and behavior to supervise and monitor their children were translated into parenting self-efficacy to support the behavioral modification in their child. Thus, changing parents' beliefs and parenting practices affected the child's beliefs, intentions, and behaviors (Hutchinson & Wood, 2007).

Unlike others, few studies have supported parent participation in child life skills development programs in Asian countries, particularly Thailand (Eksangsri, 2003; The Family Network Foundation, 2008). The preventive interventions, emphasizing parent participation, are not still widely utilized because of a widespread belief that it is impossible to get parents to participate. Little is known about family-based prevention programs in Thailand, and sizeable gaps exist in the effectiveness of family-based preventive programs that combine parent training with child training in preventive programs. Some have been assessed on a large-scale and other projects studied by applied research (Fongkaew, Sujchaya, Worakijpulpon, & Soparat, 2006; Thongchan, n.d.; Toonyasook, 2003; Uttagowitvatee, 1997). For example, Fongkaew and colleagues (2006) explained the project results that adolescents had significant effects on sexual–reproductive health knowledge and skills relevant to reducing HIV risk such as condom use. In this study, the participating parents showed the effectiveness of communication skills and disciplined key information for helping their children to develop skills relevant to reducing HIV risk, and understanding much more in their children's characteristics and needs. The Family Network Foundation (2008) implemented the family strengthening project in Thailand's northeast and southern regions using participative learning strategy, family-school partnerships and community-based development strategy. The results provided positive outcomes on the studies as a qualitative method. Playground observations reported that all of the treated children displayed less negative social behavior, particularly, aggressive behavior, stealing behavior and academic problems particularly, school dropout and lack of reading than before implementation. Furthermore, the families recognized the significance of their participation in the program, applied the knowledge gained, and put it to good practice especially, practicing in the parent-child relationship and communication.

Summarily, the interventions addressed the program in parenting strategy by employing the quality of parenting as the most powerful attempt to enhance the effectiveness of the preventive intervention program. The parent training program enhanced parents' abilities, developed positive family norms, and supported their child life skill learning in both school and family. Implementation, based on these concepts, was hypothesized to cut or stop the causal pathway leading to child behavior problems. These interventions often produce positive changes in parental perceptions and parenting behaviors as well as changes in child behaviors, but it was not clear regarding the empirical understanding of the outcome effects of intervention on Thai children and parents whether they will be maintained over time or not. Effectiveness tests of the parent training program combined with the child life skills training were organized.

Thus, in order to fill the gap of knowledge on the effectiveness of family-based intervention programs for child life skills development, an experimental study was conducted. The present study aimed to examine the effects of the intervention program that was specially designed to develop child life skills using parent training combined with child life skills training based on the TPB. In this study, the researchers proposed to add parental factors to the potential set of distal factors similar to the parent-based expansion of the theory of planned behavior. The study highlighted the primary role of parents in helping their child life skills development, as well as in reducing child negative behaviors and other risk-taking behaviors. This study aimed to investigate the indirect influence of parental factors on child life skills through life skills-related cognition. A mediation model was applied in which parental factors affected child life skills indirectly by affecting life skills cognition. The fifth graders were studied as the selected sample based on the catchment frame of the Human Potential Development in Thai People Project of Faculty of Medicine Ramathibodi Hospital, Mahidol University. Their parents were trained to practice and modify cognitively in order to participate in the program for developing child's beliefs, attitudes, intentions, and behaviors, and modifying the parenting skills and parents' cognitions. Repeated measures analyses of variance and analysis of covariance were used to test the primary outcomes, including child life skills and parenting skills and cognitions aspect, and the maintained outcomes across time. Comparisons between the

experimental (child training and parent training) and comparison (child training only) groups were conducted immediately after the intervention, and at the first and third month after the completion of the intervention.

1.2 Purpose of the study

The purposes of the study were the statements as follows.

1.2.1 To examine the effect of the parents training program along with their children's life skills training on the fifth grader' s life skills at immediately after the intervention and at the first and third month follow-up after the implementation of the intervention.

1.2.2 To examine the effect of the parents training program along with their children's life skills training on the parenting skills and parents' cognitions at immediately after the intervention and at the first and third month follow-up after the implementation of the intervention.

1.3 Research questions

The research questions were addressed in the following manner.

1.3.1 What are the effects of the parent training program along with their children's life skills training on the fifth grader' s life skills?

1.3.2 Do the fifth grader's life skills significantly change across the three time periods at immediately after the intervention, and at the first and third month after the interventions?

1.3.3 What are the effects of the parent training program on parenting skills and parents' cognitions?

1.3.4 Do the parenting skills and parents' cognitions in child life skills development significantly change across the three time periods at immediately after the intervention, and at the first and third month after the interventions?

1.4 Research hypotheses

The research hypotheses were set in the statements below.

1.4.1 The fifth graders in the experimental group have higher life skills scores than the fifth graders in the comparison group immediately, and at the first and third month after the intervention.

1.4.2 The parents of the fifth graders in the experimental group have higher parenting skills and cognition scores than the parents of the fifth graders in the comparison group immediately, and at the first and third month after the intervention.

1.5 Conceptual framework of the study

The organizing framework for intervention employed the theory of planned behavior (TPB). This theoretical model demonstrated that the intention was directly driven by those three major constructs: attitude toward the behavior, subjective norm, and perceived behavioral control (Ajzen, 1991). As a general rule, the more favorable the attitude and subjective norms, and the greater the perceived behavioral control, the stronger should be the person's intention to perform the behavior in question (Ajzen, 2005; Ajzen, Brown, & Carvajal, 2004). Evidently, perceived behavioral control may often be used interchangeably in terms of self-efficacy for measurement outcome, particularly in the family-based intervention (Harakeh et al., 2004; Hutchinson, 2002; Hutchinson, Jemmott, Jemmott, Braverman, & Fong, 2003; Hutchinson & Wood, 2007; Villarruel, Jemmolt, Jemmott, & Ronis, 2004). In this study, the parenting self-efficacy was used to measure perceived behavioral control and controllability in parenting skills for child life skills development.

This study presented the process for child life skill development based on TPB focusing on the socialized environment produced by the family as the mediating effect. The parental factors, including attitude, subjective norm, parenting self-efficacy, intention, and parenting skills were believed to mediate through behavioral or normative aspects or to control beliefs of children. The literature related to parental influence on children was reviewed and incorporated into the following.

1.5.1 Attitude toward the parenting skills

Attitude is the favorable and unfavorable cognitive and affective beliefs concerning the behavior of interest (Ajzen, 1991). In this study, the theory implies that parents who have favorable attitudes toward child life skills and parenting skills intend to support their child life skills and perform appropriate parenting skills. A positive belief in positive consequences of life skills development associates with the parents' attitude toward their parenting skills for child life skills development. Some parenting skills such as parental support and parental disapproval or approval are the parents' expressions that identify the parents' attitude toward their child's behavior (Hutchinson & Wood, 2007).

1.5.2 Subjective norm on parenting skills

Subjective norm is the perception of other important persons that support performance or nonperformance of a given behavior (Ajzen, 2005). In this study, the normative influence in the preventive behavior of parents, or other family members and parents are a strong influence in child decision making of predicted intention to perform risk behaviors. Parental norms act as mediating factors to prevent child risk behavior. Perceived maternal or paternal disapproval for engaging in those risk behaviors provide an indirect effect on child behaviors and result in better outcomes as well as positive performance (Hutchinson & Wood, 2007; Kam, Matsunaga, Hecht, & Ndiaye. 2009; Villarruel et al., 2004).

1.5.3 Parenting self-efficacy

In this study, parenting self-efficacy is the perception of parent's ability to obtain parenting skills and confidently use their parenting skills to support their child's life skills development. In family, children perceive their parent's perception and belief through parents' performance and behavior such as warm and consistent discipline, parental modeling, monitoring and supervision (Ajzen, 1991; Hutchinson & Wood, 2007). Parenting self-efficacy is the parents' perception and performance that can identify parent's ability to obtain parenting skills to support their children.

1.5.4 Intention in the parenting skills

Behavioral intention is determined by attitudes toward the behavior, subjective norms, and perceived control over the behavior of interest (Ajzen, 1991). In this study, intention in the parenting skills is viewed as the degree, to which the parents intend to perform the parenting skills for child life skills development when they evaluate it positively, experience social pressure to perform it, have greater confidence in their ability, and believe that they have the means and opportunities to do so.

In sum, this intervention is grounded on the premise of TPB. Of these variables, the parents are seen as one of the most proximal and important influences of their child risk behaviors. More distally, norms and expectations from family, peers, and communities, and even the historical context, may also exert influence through their effects on the beliefs of parents or the children themselves. Based on the mediating effect, children perceive their parents' perception for the approval and disapproval of their behaviors. This parent's recommendation is the primary reason most children pursue life skills development. The conceptual framework of this study is shown in Figure 1.1.

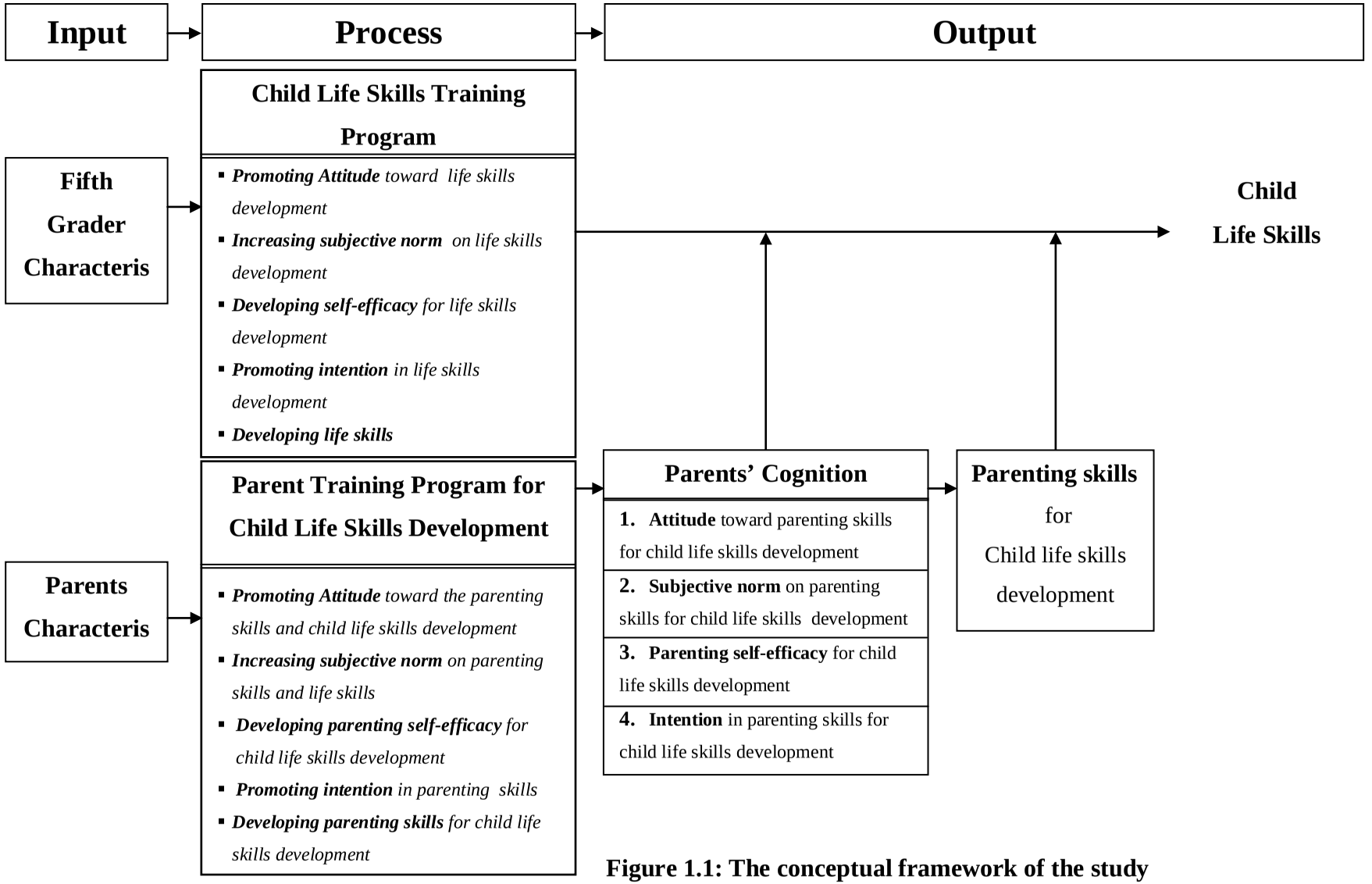


Figure 1.1: The conceptual framework of the study

As shown in the conceptual framework of this study (Figure 1.1), the traditional TPB is incorporated into this conceptual framework that combined the child life skills training program with the parent training program for child life skills development. The programs used in this study also included knowledge and practices in child life skills and parenting skills, and the mechanism to develop the determinants of attitude, subjective norm, parenting self-efficacy, intentions and parenting skills in parents to support their child life skills development. Children were developed their life skills by parents' support, cognitions, and performances, which has repeatedly been presented as the approval and disapproval of child performances in daily life. At the same time, children were trained their life skills in the life skills training program as well. Therefore, if children have favorable attitudes toward the life skills encouraged and approved by their parents, they will improve their life skills and maintain over time.

In this proposed conceptual framework, it presents that the parenting skills for support their child life skills development are themselves primarily determined by the parent's intention to perform those parenting skills. In keeping with the TPB, a parent's intention to engage in those parenting skills is determined by behavioral beliefs, normative beliefs, and control beliefs regarding those parenting skills. Thus, parents are more likely to perform parenting skills, including advice and support, perform good modeling, and have monitoring and supervision in life skills topics and child behaviors with their children if they intend to do so and if they view child life skills development positively, believe that important others would approve of doing so, and believe that they have the skills necessary to engage in child life skills development effectively.

1.6 Definition of terms

1.6.1 The fifth grader refers to children who were the elementary school students in grade 5^{th} under the Office of the Basic Education Commission, Ministry of Education, Thailand. This fifth grader was in school-age period that have proper abilities in reading, writing, critical thinking and relationships with others to participate in this study.

1.6.2 Life skills refer to personal self-management skills and moral skills, including self-esteem, critical thinking, decision-making and problem solving, coping with emotions, honesty, generosity, sufficiency, self-responsibility, family responsibility**,** and social responsibility. Life skills were measured by the life skills questionnaire for school-age children.

1.6.3 Parents refer to the father or mother who foster and live with their children.

1.6.4 Parenting skills refer to skills that the parents had the primary responsibility to and support for child life skills development. These parenting skills are classified as (1) advice and support, (2) modeling, and (3) monitoring and supervision, aimed at developing the competence and performance of children. Parenting skills for child life skills development were measured by the parenting skill items in the parent questionnaire.

1.6.5 Parent's cognitions refer to perception that the parents perceived on child life skills development and their parenting skills supported for their child life skills development based on the key constructs of the theory of planned behavior, including attitude, subjective norm, self-efficacy and intention as the following.

1.6.5.1 Attitude toward parenting skills refers to the perceptive degree to which the parents have a favorable or unfavorable evaluation of their parenting skills for child life skills development. Attitude toward parenting skills was measured by the parents' attitude toward their parenting skills for child life skills development items in the parent questionnaire.

1.6.5.2 Subjective norm in parenting skills refers to the perceptions to which the parents think that important others or salient referents would want them to perform their parenting skills or they should or should not perform their parenting skills for their child life skills development. Subjective norm in parenting skills was measured by the parents' subjective norm items in the parent questionnaire.

1.6.5.3 Parenting self-efficacy refers to the parent's confidence in his or her abilities to perform the appropriate parenting skills for child life skills development in both the perceived behavioral control (PBC) and the controllability in those parenting skills. Parenting self-efficacy was measured by the parenting self-efficacy items in the parent questionnaires.

1.6.5.4 Intention in parenting skills refers to the perceptive degree to which the parents intend to perform the parenting skills for child life skills development. Intention in parenting skills was measured by the intention in parenting skills items in the parent questionnaire.

1.6.6 The child life skills training program refers to the intervention based on the theory of planned behavior that designed to develop children's life skills knowledge and practice life skills by promoting attitudes, subjective norm, self-efficacy and intention for life skills development. This program was specially designed for use with school-aged children based on the core concept of personal self-management skills and moral skills relevant in the Thai context that obtained from the parents-teacher workshop in the Human Potential Development in Thai People Project (Phuphaibul, 2009). The program contents consisted of ten sessions, including self-esteem, critical thinking, decision-making and problem solving, coping with emotions, honesty, generosity, sufficiency, self-responsibility, family responsibility and social responsibility. All skills were trained through interactive techniques, including demonstration, role play, behavioral rehearsal, group discussion, social reinforcement, and extended practices through ten parents-child homework assignments every week. It was conducted every week in children in the experimental and comparison groups until program completed.

1.6.7 The parent training program refers to the intervention based on the theory of planned behavior that provided knowledge and practiced in the parenting skills and those ten child life skills for the parents by promoting attitudes, subjective norm, parenting self-efficacy and intention in parenting skills to support their child life skills development. This program was specially designed to train in the parents by the researcher. It consisted of three sessions to promote parenting skills and to develop their child life skills through the interactive techniques, including coaching, facilitating, role play, feed-back, group discussion and reinforcement between group session and follow-up telephone call between each session, and those ten parents-child homework assignments every month in two months in parents in experimental group until program completed.

1.6.8 Experimental group refers to group of participants, including the fifth graders who received in the child life skills training program and their parents who received in the parent training program.

1.6.9 Comparison group refers to group of participants, including the fifth graders who received in the child life skills training program and their parents who were not trained in the parent training program.

1.7 Scope of the study

The present study was a quasi-experimental study which aimed to determine the effect of a parent training program along with a life skills training program on life skills of the fifth graders and parenting skills and cognitions of their parents. The parents who participated in this program were the fathers or mothers who lived together with their children who were elementary school students in grade 5 in academic year 2011 based on the catchment frame of the Human Potential Development in Thai People Project of Faculty of Medicine Ramathibodi Hospital, Mahidol University, i.e., Samsen-kindergarten elementary school.

CHAPTER II
LITERATURE REVIEW

To study and better understand the effects and the nature of the mechanisms of parent training programs for child life skills development described in terms of a theoretical framework based on the theory of planned behavior, the reviews of theoretical and empirical literature were organized into three major parts including:

Part one: School-age children and life skills development

Part two: Family-based intervention and parent training programs

Part three: The theory of planned behavior

Each part consists of the literature review and empirical research findings related to each concept and the details are as follows.

2.1 School-age children and life skills development

2.1.1 School-aged child development

The World Health Organization has defined school-age children as children in a period extending from 6 to 12 years experience rapid biological, emotional, and cognitive change (WHO, 1997). Especially in the middle childhood ages (7-11 years), the children learn to improve and expand their social skills including critical thinking, decision making, problem solving, and communication skills (Erikson, 1963; Piaget, 1969). During this period, school-age children have progressive changes in their thought processes that become increasingly logical and coherent to be used in problem solving and relationships with others. The school-age children are ready to engage in tasks, activities, and new experiences that they can carry through to real achievement. In this period, children learn to compete and

cooperate with others, learn both group and social rules, and learn to respond to structured groups and activities.

The school-age changes in thought involve becoming less self-centered and more concerned about others' situations more than their own. Children improve their personalities based on group-standing and group conformity. Moreover, school–age children can solve problems in a concrete context based on reasoning, logical thinking and being socialized. In accordance with their empathy, it is a decisive period in their social relationships with others (Erikson, 1963). Furthermore, peer acceptance becomes increasingly more important during this period. Therefore, this period should focus on enhancing child social competence and encourage the growth of cognitive skills to encounter risky situations and to prevent health risk behaviors including social skills, interpersonal skills, and moral skills (Botvin & Griffin, 2002; Eksangsri, 2003; Epstein, 1995; WHO, 2003).

2.1.2 Skills for school-age children

School-age appears to be one of the healthiest periods of the life course, whereas this period has also been associated with an increased risk for engaging in health risk behaviors (Tucker, 2008). Children learn many strategies within the school environment with peers and teachers to be competent, which can prevent social, intellectual and emotional risks in their life (WHO, 2003). Currently, more pressure is exerted by schools to recognize problems in school-age years including academic failure, peer rejection, and emotional distress that can eventually lead later to inappropriate behaviors and conduct problems, such as drug use, delinquency, and school dropout (Botvin & Griffin, 2002; Chamberlain et al., 2008; Epstein et al., 2007).Therefore, life experiences play a significant role in child problems. Children acquire the knowledge and skills needed to understand community life and behave responsibly in various community contexts.

Learning experiences in this period will frame children's beliefs, values, attitudes, habits, and behaviors in the future that provide children the skills to deal effectively with the demands and pressures in their life. Reviews of the prevention research literature regarding self-management, social and moral skills described below

can assist children in optimizing their life course both in terms of quality and outcomes (Botvin & Griffin, 2004; WHO, 2003). Following is a brief description of these essential skills for children's lives.

2.1.2.1 Personal self-management skills: The personal self-management concept refers to the ability to manage personal reactions to responsibilities and challenges in everyday life including self-esteem, self-awareness, self-evaluation, and goal setting. These skills are the competencies that children must also be prepared for to be able to evaluate the future consequences of their present actions and the actions of others including identifying, analyzing, resisting media influences, and managing stress and emotion (Park, 2006; WHO, 2003). Moreover, it is believed that these skill components provide the development of decision making, problem solving, self-control, and self-evaluation (Botvin & Griffin, 2004).

2.1.2.2 Social skills: These skills promote appropriate interpersonal skills in order to enhance general social competence that permits an individual to interact successfully with others including verbal and nonverbal communication, active listening, and the ability to express feelings and give feedback (Botvin & Griffin, 2004; Cillessen & Bellmore, 2004; Ladd, Buhs, & Troop, 2002; WHO, 2003). The social skills include communication skills, negotiation and refusal skills, assertiveness, cooperation, and empathy (Botvin & Griffin, 2004; WHO, 2003). In addition, Botvin and Griffin (2002) indicated that children should promote drug resistance skills as well.

2.1.2.3 Moral skills: Moral skills are the ability to differentiate intentions, decisions, and actions between right and wrong in all cultures and conform to societal standards (Helwig & Turiel, 2004; Lennick & Kiel, 2005). Moral skills will form the child's interaction towards others. Moral skills include honesty, generosity, sensitivity, openness, forgiveness, and responsibility (Boonsong, 2009; Lennick & Kiel, 2005; Oladipo, 2009; Sniras & Malinauskas, 2005).

Overall, the school-age period is an important window for intervention that will promote and maintain health before children encounter the various risk factors in society. The school-age skills consist of personal self-management skills, social skills, and moral skills that are suitable and specific to resist negative social influences and

health risk behaviors. These competencies should be developed in children for early prevention and maintained as habitual behavior.

Skills training in children is becoming an increasingly trend of public interest in the fields of psychology and education in order to develop the competencies and abilities in children. Almost all skills training is the process which teaches and prepares children to recognize, regulate and express the social and emotional aspects of their lives so they can operate successfully in the world and manage life tasks (UNICEF, 2000; WHO, 2003). In general, the program aims to prevent risk behaviors as well. Therefore, the program should be combined with social skills, interpersonal skills and specific skills for handling the behavior of interest (Botvin & Griffin, 2004; Coleman, Wallinga, & Toledo, 1999; Cook et al., 2008).

Presently, moral education is promoted in the educational system for children in many countries. The emotional competence is also related to a child's social behaviors and peer relationships (Malti, Gummerum, Keller, & Buchmann, 2009; Sniras & Malinauskas, 2005). Many educators suggest that moral skills learning through social skill training is possible because those skills will be developed and automatically affect other skills (Eksangsri, 2003; Oladipo, 2009; Stevahn, Johnson, Johnson, Oberle, & Wahl, 2000). Moreover, the role of parenting continues to stand out as a significant factor influencing a child's moral and life skill development, particularly from the pattern of interaction between parents and child. Modeling is still the most effective way to demonstrate morals to a child. Thus, using parent participation is still the effective strategy both in social skills and moral skills training.

2.1.3 Life skills and life skills training

Life skills are essential abilities to manage effectively with the demands, social influences, and challenges of life. Developing the ability of children to use life skills is likely to be an effective child preparation for facing real-life situations. Those skills are a consequence of cognitive-behavioral development, which can enhance adjusting and taking responsibility for making healthier choices, resisting negative pressures, and avoiding risk behaviors. Many definitions have been created as delineated below.

Botvin (2000) defined life skills as the essential individual's competence for a wide range of high-risk behaviors in primary prevention, particularly drug abuse. The essential skills consist of drug resistance skills, personal self-management skills, and social skills.

Mangrulkar and associates (2001) defined life skills as behaviors that enable individuals to adapt to and deal effectively with the demands and challenges of life and protect themselves and promote health and positive social relationships. Life skills are designed to address a balance of three areas: knowledge, attitude, and skills.

UNICEF (2000) mentioned the term of life skills referred to a large group of psychosocial and interpersonal skills that help a person make informed decisions, communicate effectively, and develop coping and self-management skills that may help lead a healthy and productive life. Life skills may be directed toward personal actions and actions toward others, as well as actions to change the surrounding environment to make it conducive to health.

WHO (1997; 2003) defined life skills as abilities for adaptive and positive behavior that effectively manage and maintain healthy lifestyle choices and optimum physical, social, and psychological well-being.

Briefly, life skills are one of the essential skills for children to lead to a healthy lifestyle. Life skills refer to an individual's abilities to be adaptive and exhibit positive behavior for dealing effectively with the demands and challenges of life including protecting themselves from all health risks and promoting health and positive social relationships.

Regarding the major contents of the life skills education/training, WHO (2003) indicates the life skill educational content refers to the specific health knowledge and attitudes toward self and others, as well as the skills necessary to influence behavior and conditions related to a particular health issue. The life skill education will enable children to apply knowledge and develop attitudes and skills to make positive decisions and take actions to promote and protect their health and that of others (UNICEF, 2000; WHO, 1997). Therefore, the major contents should be interpersonal and communication skills, coping and self-management skills for increasing personal confidence (Botvin, 2000; UNICEF, 2001; WHO, 2003). WHO

(1997; 2003) describes the necessary components of each skill for individual life as the following.

- Decision making: evaluating information and advice to make informed decisions, assessing the advantages and disadvantages of different options, changing decisions to adapt to new situations, setting goals, and planning for the future. Decision-making is shown to be a protective factor and a moderator of social risk factors.
- Problem solving: evaluating future consequences of present actions for self and others, and finding and determining constructive solutions by applying knowledge, information, and effective experience to make positive decisions.
- Critical thinking: analyzing peer and media influences, analyzing attitudes, values, beliefs, social norms, and factors affecting these, identifying relevant information and information sources and systematic thinking.
- Creative thinking: creative thinking enables an individual to explore all possible alternatives together with their consequences. Thinking creatively is essential to decision making and problem solving.
- Effective communication: communicating effectively is the capability in the expression of feelings, needs, and ideas to facilitate an individual to send positively information to others with both verbal and nonverbal communication.
- Interpersonal relationship skills are the ability to establish and maintain positive interpersonal relations with others. These skills are effective communication, active listening, and expressing positive feelings and feedback.
- Self-awareness is the ability to identify oneself regarding personal strengths, weaknesses, and vulnerabilities, clarify personal values and beliefs, and recognize personal worth and personal happiness.
- Empathy is the ability to listen and understand another's needs and circumstances, express those understandings and needs, and accept diversity. This skill can improve interpersonal relations between diverse individuals.
- Coping with emotions is the ability to handle emotions such as depression and anger. This skill enables an individual to recognize one’s emotions and their influence, and how to manage those emotions.
- Coping with stress is the ability to handle tension and stress. This skill is a simple recognition by an individual of the things in life causing stress.

Additionally, self-confidence might be added into life skills training programs that are essential skills for understanding one's strengths and weaknesses (UNICEF, 2001; WHO, 2009). Several preventive programs may add negotiation or refusal skills to programs including negotiation and conflict management, and assertiveness skills for facilitating children to handle their decisions (Botvin, 2000; UNICEF, 2000; WHO, 2003).

In Thailand, LST was first introduced in 1994, and was adapted based on the context of typical risk situations in Thai students by including another pair of components: self-esteem and social responsibility (Department of Curriculum and Instruction Development, Ministry of Education, 2000). This training aims to develop health capacity and life skills development in childhood across the lifespan. The life skills education penetrates the usual curriculum in health educating discipline in all grades both elementary and high school level. These skills are taught to be congruent with life pathways and health behavior including substance abuse, alcohol and tobacco use, HIV prevention, and stress management.

In summary, life skills education differentiates itself in the content of topics that are covered. The content should be a clear delineation of specific knowledge, attitudes, and skills including life skills that an individual employs to make informed decisions, solve problems, think critically and creatively, communicate effectively, develop appropriate relationships, empathize with others and cope with stress and emotion for managing their lives in a healthy and productive manner.

2.1.4 Moral skills and moral skills training

Currently**,** some child skills training programs have added some moral skills as well (Eksangsri, 2003; Malti et al., 2009; Stevahn et al., 2000). The need for increasing moral skills development to promote greater child competence has been considered recently (Garner, 1996; Malti et al., 2009; Oladipo, 2009; Sniras & Malinauskas, 2005). It is believed that moral skills support the development of child practices in problem solving and decision making and the ways to organize their own emotions, particularly conflict and stress (Piaget, 1965).

The role of moral skills is highly relevant to moral behaviors. Moral skills help persons better understand the right conduct in their own, others, and society in moral issues and making moral decisions. Therefore, with increased cognitive and social maturity the development of a child's moral skills becomes an important issue equal with the development of social skills. In literature reviews both from abroad and Thailand, moral skills are defined in several areas as follow:

Kochanska and associates (2005) described that moral skills consist of three main parts including moral cognition, moral emotions, and moral conduct. All those will allow the individual to understand, regulate and respond to right conduct or not violate standards of the society.

Sniras and Malinauskas (2005) defined moral skills as the ability to behave adaptively and adequately in terms of right and wrong as guided by the respective society.

Oladipo (2009) identified that moral skills are the personal actions that are the right conduct respected by the society.

In addition, many literature reviews are involved with moral behaviors. Some researchers have implied the relationship between moral skills and moral behaviors as follows,

Rubin and Schneider (1973) illustrated that highly positive relationships exist between moral behaviors, moral judgment, and moral conduct. These relationships support the situation that children will adhere to rules without the authority from external factors.

Mehta and Whitebread (2004) identified that moral reasoning and behavior requires careful decision making, empathizing with others and commitment to one's decisions. The person will behave appropriately and adequately based upon moral reasoning and judgment.

Aquino and colleagues (2009) defined moral behaviors as the actions that demonstrate social responsiveness to the needs and interests of others, and to the ethical orientation.

Pantoomnawin (1981) described the meaning of moral behavior as behavior that refrained rule, law, religious violation and admiration by society.

Chaisri (2007) mentioned that moral behavior is a judging behavior involving right or wrong based on rule, law, religious values and the value of popularity in various circumstantial situations.

In sum, moral skills are the human's abilities in decision making to behave adaptively and adequately that are admired by the social public as well as demonstrated social responsiveness to the needs and interests of others, and to the ethical orientation.

As regards to the major contents of the moral skills training, several psychologists and educators mentioned that a child's moral skill development supports and enhances working efficiency, strengthens team work and improves the quality of life (Helwig & Turiel, 2004; Oladipo, 2009; Sniras & Malinauskas, 2005). During the school-age years, children develop morality gradually and in stages such as developing a sense of guilt, the ability to distinguish between right and wrong, and the capability to be empathic (Kohlberg, 1981). Consistent with this notion, systematic reviews yield overall the basic moral skills that benefit children, especially when they live or work with others including honesty, loyalty, responsibility, empathy, respect, and kindness (Oladipo, 2009; Sniras & Malinauskas, 2005; Zhang, 2010).

In Thailand, school-age children are highly expected to have responsibility, discipline, honesty, self-dependency, industry, and sacrifice that are considered the important behaviors for living in society (Boonsong, 2009; Chaisri, 2007; Eksangsri, 2003; Manowong, 2001; Sangsuk, 2001). The moral skills in this study are described as the following.

- Honesty is defined as truthfulness and sincerity. It comprises positive and virtuous attributes such as integrity, truthfulness, and straightforwardness along with the absence of lying, cheating, and theft.

- Generosity is the personal quality that behaves in giving help to others and showing kindness and being willing in one's attitude to and treatment of others without expecting anything in return.

- Empathy is the reacting and feeling the same as another's feeling with an emotional response or statement that reflects the other's feelings. Empathy helps to understand others when faced with interactions with those who experienced unfortunate

situations. Moreover, empathy is added in the general life skills training as well; it is identified as primary motives for altruism (Botvin & Griffin, 2004; WHO, 2003).

- Sufficiency is the personal quality that behaves in moderation, reasonableness, and the need for self-immunity for sufficient protection from impacts arising from internal and external changes. It is a state or quality of being sufficient or adequate to provide comfort and meet obligations appropriately.

- Personal responsibility is the ability in concerning, responding to, and awareness of their duty and obligation not only for individual behavior, but also for family and society.

Overall, helping children grow morally is really more important and benefits by helping them to prepare children for the increasingly complex moral decision making of adolescence and adulthood. Therefore, the need for organized training of moral skills in children is still necessary to be a successful and ethical person, at least the moral skills such as honesty, responsibility, sufficiency, empathy and generosity.

2.1.5 Effectiveness of the life skills training program Since the early 1980s, LST has been conducted and produced positive behavioral effects as a universal preventive program over the past 30 years. This programs have been used to reduce alcohol and tobacco use (Botvin et al., 2003; Zollinger et al., 2003), reduce substance abuse (Botvin et al., 2000; Price et al., 1998; Spoth, Randall, Trudeau, Shin, & Redmond, 2008; Trudeau, Spoth, Lillehoj, Redmond, &Wickrama, 2003), HIV prevention (Griffin, Botvin, & Nichols, 2006; Magnani, MacIntyre, Karim, Brown, & Hutchinson, 2005) and contribute to reductions in violence and delinquency in children and adolescents (Barrera et al., 2002; Botvin et al., 2006; WHO, 2009). Most of those life skill interventions have succeeded in achieving behavioral change and enhancing life skills, especially more positive effects such as increased knowledge, improved attitudes, and intention to change negative behaviors.

In addition, the results of the meta-analysis of LST preventive programs identify the effect size of those that range from .28-.32 (Cook et al., 2008; Najaka et al., 2002; Wilson et al., 2001). Therefore, many countries are now considering LST in response to the need to reform traditional education systems (Department of Mental

Health, 2008; WHO, 2003). Fortunately, working with the parents and family is more effective than only child intervention. Meta-analyses indicate that family-focused approaches increase the effect sizes in reducing child problem behaviors on average nine times larger than child-focused prevention approaches (Kumpfer et al., 2003; McCart et al., 2006; Tobler & Stratton, 1997).

Literature reviews have indicated that gender differences and time measurement are the important factors that affect on the outcome achievements of child intervention. Many studies were reviewed to support as follow.

2.1.5.1 Differential program effects by gender: Gender differences, in particular, have often been overlooked when designing and evaluating prevention programs that gender may play a role in how risk factors influence child problem behaviors such as substance abuse, smoking, and alcohol consumption (Spoth et al., 2008; Trudeau et al., 2003; Wall, 2004). The differential effects by gender also were found in several studies, although the intervention is effective in initiation for both genders (Kochanska et al., 2005; Paciello, Fida, Tramontano, Lupinetti, & Caprara, 2008; Spoth et al., 2008; Zollinger et al., 2003). Empirical evidence suggests that the program outcomes may be different due to gender.

From a review of gender differences among child prevention programs, many studies have reported differences separately by gender: girls were reported to obtain stronger positive effects both in social and moral skills and more moral motivation in the context of harm than boys, especially in the social and emotional areas (Blake, Amaro, Schwartz, & Flinchbaugh, 2001; Fabes, Carlo, Kupanoff, & Laible, 1999; Kochanska et al., 2005; Paciello et al., 2008; Smith et al., 2004; Spoth et al., 2008; Zollinger et al., 2003).

2.1.5.2 Differential program effects by time and age: The expected changes in different outcome variables might appear at different points in time after intervention, so the outcome achievements may occur at different times (Kane, 2006; Sidani & Braden, 1998). Generally, the intervention effects present lower levels of child problem behaviors for early outcome measurement, including aggression, delinquency, risky sexual practices, and substance initiation (Amaro, Blake, Schwartz, & Flinchbaugh, 2001; Brake, 2008; Smith et al., 2004; Spoth et al., 2008). Moreover, several prevention trials specify that the intervention effects are reported at the follow-up for child problem

behaviors prevention, despite there being absent effects or small initial differences in those problem behaviors immediately after the intervention. Yankah and Aggleton (2008) concluded from their 25 life skills programs and demonstrated that studies looking at the short term effects of the life skills-based education showed increases in knowledge and improved attitudes, but rarely a change in behaviors. On the other hand, studies looking at the longer term effects reported increases in knowledge, improved attitudes, intention to change negative behaviors, improved skills and sometimes, changes in behaviors.

Empirical evidence indicates that the program outcomes regarding substance abuse in the elementary students cannot predict drug use behavior because they may not be involve with or face the substance abuse situation (Barrera et al., 2002; Perry et al., 1996; Spoth et al., 2008). Thus, many researchers suggest that the measurement should include long term follow-up (Barrera et al., 2002; Fabes et al., 1999, Mason, Kosterman, Hawkins, Haggerty, & Spoth, 2003; Yankah & Aggleton, 2008). However, the long-term intervention does not guarantee reduction of risk behaviors because those are complicated behaviors and a lot of factors in child life both risk factors and protective factors were so influent to them. For example, the pathway for preventive substance use in children demonstrated the family bonding family supervision, and family norm, and self-control were the strongest factors in preventing substance use in children (Kumpfer et al., 2003).

2.1.5.3 The principles of effective life skills training

Several program developers and researchers have formulated a comprehensive list of lessons learned to prevent the spread of child health risk behaviors. Finally, five principles for implementation the life skills training have been concluded as follow (Botvin, 1996; Botvin & Griffin, 2004; Coleman et al., 1999; Eksangsri, 2003; Lochman & Wells, 1996; WHO, 2003):

- **Theory driven**: The program should be based on a theory that describes how to reduce risk factors and develop protective factors such as child development theories, social learning theories and psychosocial theories. In addition, it should also be based on an evidence-based theory of change supported by scientific evidence relevant to the target population and specific target skills or concerning issue.

- **Appropriate time**: The program should be matched to the characteristics of the target population, with particular emphasis given to the age and

developmental stage, and the level of risk or problems. Several findings from well-established programs present that providing competency training intervention during the school-age period before facing risks or establishing problem behaviors will give more positive impact on outcomes (Botvin, 2000; Burns, Hoagwood, & Mrazek, 1999: Nation et al., 2003; UNICEF, 2000; WHO, 2003).

- **Interactive techniques**: The effective program must be based on interactive techniques and coupled with the teaching of health information and the promotion of positive attitudes and values. Program should use participatory learning methods and social learning process which includes: group discussion, observation, modeling, skill practicing in selected situations in a supportive learning environment and feedback about individual performance. Additionally, sessions should have sufficient intensity and duration in terms of structure and content to address the targeted outcomes. However, prevention techniques and materials need to match the cognitive, social and physical development of the population of interest (UNODC, 2009; Webster-Stratton & Reid, 2004; WHO, 2003).

- **Systematic monitoring or booster**: The programs should always provide strong and systematic monitoring or a booster during childhood and adolescence (Botvin, Griffin, Diaz, & Ifill-Williams, 2001; Nation et al., 2003; WHO, 2003). Moreover, booster sessions should be held on the continued development that enables children to cope more effectively with the various pressures and problems confronting them as adolescents.

- **Supportive environment**: The program should be considered and provide a supportive environment for children, particularly parents and family. The parents appear to be the greatest quantity of learning context for the development of attitudes and behaviors through children. Traditionally, parent participation is seen to be helpful to children and school, and be a mediating effect of life skills resources. Therefore, changes in parents and family will maintain the positive environment for child development.

Overall, to be successful, the program interventions for children should be concerned with those five principles to create the intervention: being a theory-based program, applying at the appropriate time, using interactive techniques, systematic

monitoring, and providing a supportive environment**.** Those principles are articulated for effective strategies and outcomes as powerful strategies to promote child competency.

2.1.6 Studies related to child skills training programs

- Life skills training: Studies related to life skills training were reviewed and presented below.

Botvin and associates (2000) conducted a randomized prevention trial to determine illicit drug use by using skill training prevention programs since 1992 to 1999. Data were collected by mail from 447 children who were contacted after the end of the 12^{th} grade, 6.5 years after the initial pretest. Results indicated that students who received training reported less use of illicit drugs than controls: marijuana use; (F (1, 416) = 4.81, $p < .029$), inhalant use frequency; (F (1, 417) = 6.37, $p < .012$), heroin and other narcotics use; (F (1, 417) = 4.58, $p < .033$), total illicit substance use; (F (1, 418) = 6.56, $p < .011$), and total illicit drugs other than marijuana; (F (1, 418) = 5.74, $p < .017$). These results also support the effectiveness of those programs.

Moreover, Botvin, Griffin, Paul, and Macaulay (2003) conducted a study to examine the effectiveness of prevention programs in preventing tobacco and alcohol use among 1,090 elementary students in grades 3 through 6 from 20 randomly assigned schools. The experimental group reported less smoking in the past year; (F (1, 1059) = 3.15, $p < .038$), higher anti-drinking attitudes; (F (1, 1058) = 2.93, $p < .044$), increased substance abuse knowledge (F (1, 736) = 3.47, $p < .031$) and skill-related knowledge, lower normative expectations for smoking; (F (1, 1046) = 4.31, $p < .019$) and alcohol use; (F (1, 1056) = 12.84, $p < .000$), and higher self-esteem at the posttest assessment; (F (1, 1046) = 6.21, $p < .006$), relative to control students. Moreover, school-level analyses showed that the annual prevalence rate was 61% lower for smoking and 25% lower for alcohol use at the posttest assessment in schools that received prevention program when compared with control schools.

Likewise, Zollinger and colleagues (2003) conducted a quasi-experimental study to determine the impact of LST on 1,598 students in grades 6 to 8 from 1997 to 2000. The finding indicated that LST positively impacted tobacco use and attitudes of middle school students ($p<0.05$). Significantly fewer smokers were reported, and more

students indicated that they intended to stay smoke-free. Trained students presented that they were more knowledgeable and had more competencies to refuse smoking.

Not only were some programs implemented in areas of interest, but also one intervention was conducted in the high risk substance abuse area. Givaudan and colleagues (2005) conducted a preventive program for substance abuse in grades 4-6 to implement preventive strategies and promote healthy behavior in Mexico. The results revealed significant changes, showing an increase in decision making skills and changes in attitudes toward substance abuse. Results showed strong attitudes against drug use, and an increase in critically analyzing drug advertisements and messages after the program. This intervention presents the effectiveness of LST although it was conducted in risk area.

Moreover, some studies have described how LST programs can prevent health risk and problem behaviors as mediator effects. For instance, Botvin, Griffin, Diaz, and Ifill-Williams (2001) conducted a blocked randomized design that was divided into high, medium, or low smoking prevalence for 16 schools with intervention conditions and 13 schools with control conditions for testing a school-based drug abuse preventive intervention among 3,621 minority students in New York. Results indicated that the program had a direct positive effect on cognitive, attitudinal, and personality variables that play a major role in adolescent substance abuse. Statistically significant program effects were found regarding those variables. Moreover, the prevention effects on some drug use outcomes were mediated in part by risk-taking, behavioral intentions, and peer normative expectations regarding drug use. Consistently, Bühler, Schröder, and Silbereisen (2007) conducted a quasi-experimental study to determine the life skills role as mediator variables in substance abuse prevention in 442 fifth graders. The finding reported significant effects of the prevention programs on child smoking and drinking behaviors. Statistically significant program effects were found on mediator variables, knowledge about skilled behavior ($p < 0.01$) and life skills resources ($p < 0.001$). Increasing life skills knowledge paralleled improving attitudes toward alcohol and nicotine use that could enhance the chances of delaying the onset of smoking and heavy drinking. The researchers concluded that favorable preventive outcomes may be influenced through building general life skills knowledge.

Similarly, Griffin, Botvin, and Nichols (2006) examined a randomized control trial study to investigate the long term impact of prevention programs on drug use and sexual behaviors. Participants in the intervention condition group received a 30-session drug prevention program in 7th through 9th grades. Follow-up surveys were completed by 2,042 young adults (mean age = 24). The intervention had a direct effect on HIV risk behavior in the overall sample in young adulthood. Furthermore, the intervention significantly reduced the incidence of alcohol and marijuana intoxication over the course of adolescence, which in turn was associated with a reduction in later HIV risk behavior. This finding supported that the behavioral effects of those drug prevention programs can extend to other risk behaviors including HIV infection.

The effectiveness of LST programs usually can be explained by the evidence from systematic and meta-analysis reviews. Park (2006) reviewed in eleven papers the school-based smoking prevention programs for adolescents in South Korea. The result demonstrated that eight studies reported significant effects of knowledge about smoking; three studies reported small effects; two studies showed medium effects, and three studies reported a large effect. Four studies had a negative or small effect of attitudes toward smoking; three studies showed medium effects, and two studies reported a large effect size. With respect to the smoking rate, no study reported a statistically significant effect on smoking behavior and the effect size was negative or close to zero.

Inconsistently, Wilson and colleagues (2001) conducted a meta-analysis to examine the effectiveness of school-based prevention of problem behaviors from 165 studies of prevention activities for decreasing dropout and nonattendance, crime, substance use, and other behavior problems. The findings reported that school-based prevention programs appear to be effective in reducing alcohol and drug use, dropout and nonattendance, and other behavior problems, and positive effects in self-control or social competency, but the effect size of the outcomes was still small. Likewise, Cook and colleagues (2008) appraised and analyzed the five meta-analytic reviews in the social skills training for secondary students with emotional and/or behavioral disorders. The result reported that the overall weighted mean effect size across the five meta-analyses was .32 that indicated a small effect for skills training.

In Thailand, a number of life skills development programs in Thai children and adolescent have found that only specific skills were selected for use in health risks prevention such as critical thinking, decision making, self-awareness, self-esteem, communication skills, particularly refusal skill, and coping with stress were appropriately used for substance abuse prevention (Samakorn, 2002; Toonyasook, 2003), and critical thinking, decision making, self-awareness, and refusal skill was properly used for risky sexual behavior prevention (Jantarat, 2004; Klatthong, 2006; Pruttasarote, 2005; Punyapet, 2005). For instance, Toonyasook (2003) examined the effectiveness of LST combined with guardians and teachers participating in an amphetamine abuse prevention program among 7th graders in Songkhla Province using five skills including critical thinking, decision-making and problem solving, self-esteem, negotiation and refusal skills and coping with emotion. The 83 students were enrolled in the quasi-experimental study and the findings reported that the experimental group had higher mean scores on all five skills and preventive behaviors in amphetamine abuse at immediately and one month after intervention than before the intervention and in comparison with the control group (p-value <.001). Likewise, Mongkolsilp (2007) examined the LST program for developing smoking prevention behavior in 60 early adolescents (6th graders). The quasi-experimental research was conducted as a school-based program in 2 schools in Bangkok. Program content consisted of decision making and problem solving skills, refusal skills, and knowledge about harmfulness of smoking. The results reported that the experimental group had higher mean scores on smoking preventive behavior at one week and one month after intervention than before the intervention and in comparison with the control group (p-value <.001).

Not all of the life skills elements in prevention programs can predict or increase child life skills. Punyapet (2005) tested the effectiveness of the life skills development program on heterosexual relationships among 11th grade students in Bangkok. The quasi-experimental study was conducted among 37 students in the experimental group and 33 students in the comparison group. After the intervention, the experimental group had significantly higher mean scores on knowledge of changes in the adolescent period (t=-4.30, p-value <.05). However, the experimental group was not significantly different regarding knowledge about heterosexual relationship mean scores (t=1.55, p-value >.05) after intervention; similarly, other life skills were also not

significantly different. Moreover, only critical thinking, and interpersonal relationship and refusal skills in the experimental group had significantly higher mean scores than the comparison group (t=2.76, *p*-value <.05, t=2.45, *p*-value <.05, respectively).

In accordance with the effects of family factors, the empirical findings regarding the risk and protective factors highly associated with parents or family have been studied. Thus, many researchers have developed alternative method including parent participation in prevention programs. For example, Pruttasarote (2005) examined the effectiveness of the mother-daughter sexual communication program among mothers whose daughters were studying in 7^{th} grade in Phetchaboon Province. A total of 86 mothers were enrolled in the quasi-experimental study and the findings reported that mothers in the experimental group had higher mean scores on sexual knowledge, attitude towards sexual communication, and practice of sexual communication at immediately and one month after intervention than before the intervention and in comparison with the control group (*p*-value<.001). The researcher concluded that the program enabled the mothers to apply and transfer sexual knowledge to their daughters that empowered their daughters with appropriate sexual knowledge, sexual development, and other life skills.

- **Moral skills Training**: A review of literature has revealed that moral education and moral training are becoming an increasingly popular topic in the fields of psychology and education. A lot of studies explain the necessary associations and the important relationship between child behaviors, child development and moral skills. Studies related to moral skills training for children were reviewed and presented below.

Paciello and colleagues (2008) conducted a longitudinal study in 366 adolescents from age 14 to 20 for examination of mechanisms conducive to chronic engagement in aggressive and violent behavior in late adolescence. The study results showed that most adolescents exhibited declining levels of moral disengagement over time. Boys were more likely to maintain higher levels of moral disengagement in late adolescence. The adolescents who showed high levels of aggression in early adolescence such as frequent physical and verbal aggression, and violent acts were

more likely to have recourse to moral disengagement and less likely to feel guilt in late adolescence.

Similarly, the previous study in Swiss school-age children elucidated the relationship between moral topic and child behavior. Malti, Gummerum, Keller, and Buchmann (2009) conducted longitudinal studies investigating the role of child moral motivation and sympathy level in prosocial behavior. The results revealed that prosocial behavior increased with rising sympathy levels. Moral motivation and sympathy were also independently related to prosocial behavior. These findings reveal that moral motivation is an important precursor of the moral self and related moral actions in childhood. An increasing linkage of morally relevant emotions such as sympathy to moral judgment is likely to contribute to the later development of child moral skills. Moreover, girls had more moral motivation in the context of harm than boys.

Consistent with those relationships, Stevahn and associates (2000) examined the effects of conflict resolution training integrated into the kindergarten curriculum of American Midwestern suburban elementary schools. Significant differences between trained and untrained children occurred in their knowledge and retention of the conflict resolution procedure, willingness and ability to use the procedure in conflict situations and conceptual understanding of friendship.

In Thailand, Chaisri (2007) studied the factors related to moral behaviors in 400 students in the 5^{th}-6^{th} grades. The results showed attitude toward moral behaviors, parenting style, family relationship, participating in moral activity in the community, and social support including guardians, teachers, peers, and multimedia were significantly related to child's moral behaviors. Moreover, some researchers have conducted drug use prevention programs using LST integrated with the Buddhist model. Kitissurakulchai (2008) examined a program conducted integrating LST with the Buddhist model for drug abuse prevention among 230 students in secondary level schools. The quasi-experiment study was conducted and the findings elucidated that students in the experimental group had higher mean scores on the attitude prevention drug abuse mean scores than the control group who received LST only (t =22.828, p-value=0.000). The results reported that moral education can support the life skills for child behavioral problem prevention.

2.2 Family-based interventions and parent training programs

As regards the family relationship, parents are a powerful influence on cultivating child values and habits and promoting child health behaviors (Epstein, 1995; Wong & Whaley, 1999). Thus, changes in the child will not likely continue if the family system remains unchanged. To increase effectiveness in developing and changing child behaviors, most program developers are now combining behavioral parent training with child skills training. Appropriately, training in parenting skills support parents to perform the appropriate parenting that positively affects on the reduction of child behavior problems. This approach has been widely proven to provide an effective outcome, particularly in children.

2.2.1 Family-based interventions

Family-based interventions are defined as being conducted with one or more parents, children and other family members receiving information and/or a course of instruction together aimed at encouraging healthy family development (Berger, 2004). This intervention performs many comprehensive prevention activities that provide highly effective outcomes (Kumpfer et al., 2003; UNODC, 2009). The three types of family-based intervention provide different outcomes. The characteristics of family-based interventions include: behavioral parent training to train parenting skills for child development, family therapy interventions used with families in which children are already manifesting behavioral problems, and family skills training that consist of multi-component interventions including parent skills and child skills training (Berger, 2004; Kumpfer & Alvarado, 1998; McCart et al., 2006).

2.2.1.1 Factors influencing outcomes of the family-based interventions: A review of family-based intervention research for child life skills development yields a variety of outcomes. Almost all outcomes are behavioral including child behaviors, parenting behaviors, and the broader improvements in family functioning such as better problem-solving and communication in family conflict and stress (McCart et al., 2006; Petrie et al., 2007). Factors influencing those outcomes are time, age, and gender. The intervention outcomes are specificity in the timing for outcome measurement. Small scale trials are appropriate for the prevention of negative behaviors and initial substance abuse such as cigarette smoking and

alcohol consumption. Large scale trials are appropriate with more serious levels of negative behaviors (Kaminski, Valle, Filene, & Boyle, 2008; Stormshak, Dishion, Light, & Yasui, 2005; Spoth et al., 2008). Elevated rates of problem behavior also emerge in boys that may affect the outcome if two groups differ by gender (Smith et al., 2004; Stormshak et al., 2000; Trudeau et al., 2003).

2.2.1.2 Principles for organizing a family-based intervention: In a recent issue, several principle themes were articulated for effective implementation strategies and outcomes. Several summarized findings from well-established programs are concerned with six perspectives for positive outcomes and uses to create interventions (Cunningham, 1996; Kumpfer & Kaftarian, 2000; Lochman, 2000; Nation et al., 2003; UNODC, 2009):

Firstly, theory-driven intervention: The theory-based prevention program provides scientific support for identifying causes and effects of target behaviors. In addition, theory-based programs will describe how risk factors are reduced and protective factors are developed through the training (Kumpfer & Kaftarian, 2000; Nation et al., 2003; UNODC, 2009).

Secondly, age and level of participants: Programs should be matched to the age and level of development of children in the target population. Moreover, based on comprehensive family skills approaches, the family-based intervention should emphasize reducing risk factors and enhancing protective factors to enhance sensitivity to the changing developmental needs of families, parents and children because this can be moderated by increased parental caring and positive parent-child relationships (Nation et al., 2003).

Thirdly, cultural relevance: The participant's cultural understanding is an important step to build partnerships with parents and break down the barriers that inhibit effective service delivery. Understanding the family's values, priorities, and unique individual characteristics can support program success. Cultural understanding may help program utilization, retention, and recruitment (Catalano et al., 1993; Kumpfer, Alvarado, Smith, & Bellamy, 2002; Nation et al., 2003).

Fourthly, active parental participation: Active parental participation appears to be an important feature of successful interventions. Providing additional support for the value of interventions involving active parental involvement

involves direct communication with parents, either face-to-face or by telephone. The least effective interventions were found not to include this. Thus, studies evaluating a school-based intervention supplemented only with mailed information to parents found no significant differences between intervention and control groups (Petrie et al., 2007). Levels of participation in the parenting programs have been problematic in several studies. Programs need to be sensitive to the needs of parents in order to ensure their motivation. The long term effect of parenting programs must also be considered.

Fifthly, engagement and retention: Within the growing literature on engagement and retention in preventive programs, five broad classes of factors have been found to predict engagement: demographics (e.g., gender, socio-economic factors including marital status, education, income, and ethnicity-race), perceived need for the intervention (e.g., perceived risk or severity of child problem), perceived barriers to participation (e.g., transportation and distance, time, language/cultural barriers, and stressful life events), parental intentions and motivation, and family factors (e.g., family disapproval) (Gaevey et al., 2006; Haggerty, Fleming, Lonczak, Oxford, Harachi, & Catalano, 2002; Haggerty, MacKenzie, Skinner, Harachi, & Catalano, 2006; Heinrichs, 2006; UNODC, 2009).

Consistent with those barriers, many researchers explain the strategies for attracting or recruiting parents and retaining them in programs. These include: clearly communicated program purpose, information on perceived benefits and perceived need for the intervention, selecting the right leader, well developed relationships, helping parents develop ownership over time, and helping them bond to the group, having an accessible program by providing transportation and incentives that promote interest (e.g., refreshments, gift certificates, food), encouragement and monitoring (e.g., calling participants the night before activities, providing program calendars that highlight the date of events.), and conducting a flexible and tenacious program (Gaevey et al., 2006; Heinrichs, 2006; UNODC, 2009).

Sixthly, interactive techniques are important in promoting the new skills. Interactive techniques should be employed to provide parents and families with the opportunity to practice skills in order to strengthen positive outcome (Kumpfer et al., 2003; Nation et al., 2003; UNODC, 2009).

Furthermore, a sufficient number of sessions to practice skills and allow for behavior change are very important. Pilot studies and/or programs achieve this appropriately. In general, universal family skills training programs include 4-8 sessions whereas higher risk families would typically include 10-15 sessions (Kumpfer et al., 2003; UNODC, 2009). Consistent with a systematic review by Petrie and colleagues (2007) it has been demonstrated that the most of effective number of sessions in a parenting program are an average of 5-7 sessions.

Lastly, comprehensive contents on symptom reduction and behavior promotion are of importance; these two constructs are not synonymous, and as a result may produce different findings. Symptom reduction focuses on reducing or eliminating symptoms while promotion focuses on encouraging optimal wellness. They should be balanced in the prevention program because these two constructs will support each other (Kumpfer et al., 2002; Nation et al., 2003; UNODC, 2009; Webster-Stratton & Reid, 2004).

In sum, all of these principles are very practical for positive outcomes and implementation including theory-driven intervention, appropriate time, cultural relevance, active parental participation, engagement and retention, interactive techniques, and comprehensive contents. Moreover, program development should always consider those principles based on evidence and each context.

2.2.2 Parent training programs

Parent training program is defined in two qualities such as a program in which parents actively acquire parenting skills through mechanisms such as homework, modeling, and practicing skills and a program that provides the information of interest for improving parenting skills and developing child competencies and behaviors (Berger, 2004; Epstein, 1995; Kumpfer & Kaftarian, 2000; McCart et al., 2006). Over the past two decades, parent training and parent involvement have been an effective strategy for usefulness of child risk preventive programs. Parents are trained to directly practice parenting skills and improve their perception and cognition for their child's development (Berger, 2004; Epstein, 1995; Kumpfer & Alvarado, 1998). Thus, parenting skills and effective child rearing techniques for facilitating and responding to children are the basic contents in the

parent training program. Almost all programs are designed to help parents strengthen communication with their children and prevent children from behavioral problems.

The definitions of parenting skills have been selected by educators and researchers in various approaches. Some investigators typically select the aspects of parenting behaviors to define parenting skills by observation and self-report including responsiveness to individual children's needs, warmth and expressiveness, explicit teaching and verbal explanation of parental desires and actions, and behavioral control strategies, including traditional disciplinary practices (Ramey, 2002). Based on parent tasks, parenting is defined as parents' activities that bring them to know and adapt to their children, nurturing, and enabling their child's development and well-being. It is a continuous interactive cycle, in which the parents monitor their child, attempt to understand their child in all aspects and respond accordingly (Davis, Day, & Bidmead, 2002). As a familial psychology approach, parenting is defined as intentional activities of parents aimed at ensuring the survival and development of their children (Hoghughi, 2004). The parenting activities comprise three major themes including the physical, emotional, and social care, control and monitoring, and development for children to fulfill their potential in all areas of functioning. Moreover, Friedman, Bowden and Jones (2003) defined parenting skills as the ability of parents to have positive parent-child interaction and management to decrease or control negative behavior and conduct disorder. The major parenting skills are parent-child communication, support, monitoring and supervision, and stress and coping management.

2.2.2.1 Parenting skills for school-age children: Based on the phase of school-age, parenting in this stage focuses on reinforcing the parents' efforts to be sensitive to children's developmental needs and emerging abilities in their child (Bigner, 2006; Brooks, 2011). The parenting practices should change when children reach the school-age years because of the developmental tasks and child's experience and environment. Adapting parenting practices moves away from focusing attention, energy, and resources on providing physical care to providing psychological care that is supportive of school-age children. Training children for increased self-control, promoting cognitive skills (e.g., critical thinking, empathy), and facilitating a sense of industry and peer relations (e.g., team work, empathy) in early childhood are important tasks for parents (Bigner, 2006; Brooks, 2011; Smith, Sprengelmeyer, & Moor, 2004).

Responding to a child's changing developmental demands in middle childhood means learning to lessen the many controls imposed during early childhood. Parents of school-age children should use general supervision to support children to achieve self-regulation (Bigner, 2006).

2.2.2.2 Effective parenting skills on child competence: As the cause of child behavioral problems, two major parental factors affecting child behaviors are parental protective factor and risk factor (Botvin & Griffin, 2004; Cleveland et al., 2008; Loveland-Cherry, Ross, & Kaufman, 1999; Phuphaibul et al., 2005). The parental risk factors comprise negative personality factors, insecure attachment with one's own parents, parental conflict, lack of support, poor parent-child interaction, negative parental behaviors and approval of the child's negative behaviors. The parental protective factors are parental monitoring, supportive family environment, warm parent-child relationship, parental modeling, and a positive authoritarian parenting style. Therefore, effective preventive intervention should emphasize the protective factors in order to decrease risk factors as well (Chamberlain et al., 2008; Kumpfer et al., 2002; Webster-Stratton, Reid, & Hammond, 2004).

In accordance with the influence of parents, Kumpfer and Alvarado (1998) indicated that the important skills of parents should be the parent-child relationship, family communication, parental monitoring and supervision, modeling, and the skill of rewarding good behavior and ignoring bad behavior. Similarly, Lochman (2000) indicated that effective parenting skills are parent-child relationship, parental monitoring, parent-child communication skills and parent stress management. Parenting skills are demonstrated by parents' warm involvement with their children, ability to have positive parent-child interaction, and management to reduce the risk negative behavior and conduct disorder.

From the empirical review of the parent-child relation approach, Riesch and colleagues (2006) concluded that parenting skills refers to the primary responsibility of parents to care for and support their children. Parenting skills are composed of parent-child communication, monitoring, modeling, caring, and conflict resolution ability. Consistent with those reviews, the National Institute of Child Health and Human Development Conference in 1999 identified parenting skills comprise five themes as well as responding to children in an appropriate manner, monitoring, mentoring to

support and encourage desired behavior, modeling positive examples for children, and preventing risky behavior or problems (Borkowski et al., 2002).

As regards to parental monitoring, Veal and associates (2006) showed that parental monitoring is negatively associated with alcohol consumption behavior in childhood and recent alcohol consumption behavior. Clear family rules and strong parental monitoring were significantly predictive of lower probabilities of alcohol abuse in adolescence. Similarly, Xiaoming and colleagues (2000) found that a perceived lack of parental monitoring related to lower levels of a variety of risk-taking behaviors, including alcohol consumption in the long term. Children reported a higher tendency to use alcohol, cigarettes, or other substance if they perceived more permissiveness, less nurturance, and less monitoring. Parental monitoring and supervision have a significant impact on child-peer association, decreasing involvement with antisocial peers. Appropriate monitoring and supervision can provide a foundation for reducing the later risks of peer influence and pressure. Consistent with that review, Guo and colleagues (2001) found that elementary and high school students who reported good parental monitoring and obvious family rules had a significantly lower probability of alcohol abuse and dependence in adulthood.

Modeling skills influence both positive and negative behavior in children. Phuphaibul and colleagues (2005) reported that parent modeling affected health promoting behaviors of adolescents. Concerning negative behaviors, a longitudinal study on the effects of parental modeling and parenting behavior on offspring's drinking and smoking found that parents affected their offspring's use of alcohol and cigarettes both through modeling and parenting behavior. Likewise, Magoon and Ingersoll (2006) reported that parental gambling was related to levels of gambling as well as increased likelihood of being classified as a problem gambler. Increased parental attachment was also associated with decreased levels of adolescent gambling, while decreased parental trust and communication resulted in increased problem gambling.

All the above parenting skills are viewed from different perspectives. Based on the existing evidence, it is manifest that parenting skills comprise parent-child communication, parent-child relationship, monitoring and supervision,

modeling, and stress and coping management. The core set of parenting skills is described as follows.

1. Parent-child communication refers to both verbal and nonverbal positive communication, active listening, expressing feelings, giving feedback (without blaming) and receiving feedback. Parent–child communication has been linked with more conservative attitudes, perceived behavioral control, intention, and behaviors among children (Hutchinson et al., 2003; Hutchinson & Wood, 2007; Kumpfer & Alvarado, 1998).

2. Parent-child relationship refers to an ability to establish and maintain fundamental family relations based on providing parenting support, responding appropriately to basic needs of their child, and developing a positive and secure attachment with their children. A positive parent-child relationship enhances parents' motivation to monitor, to model, and to manage healthy behavior practices in their child (Riesch et al., 2006; Friedman et al., 2003).

3. Parental monitoring and supervision refers to parent activities that result from parental awareness of their child's activities and communicate to their child. Monitoring is an important way to protect the children from harm and risk behaviors. Effective monitoring is based on clearly communicating to children (i.e., guidance, support, and limit-setting) and supervision (Borkowski et al., 2002; Dishion & McMahon, 1998; Kumpfer & Alvarado, 1998).

4. Parental modeling refers to a process of observational learning in which the behavior of the parent acts as a stimulus for similar behavior in their child. Modeling provides an example for children. Children may learn or exhibit avoidance from their parents in a vicarious manner (Bandura, 1986).

5. Mentoring refers to parent activities that support and encourage desired behaviors by offering advice and support, listening, and spending time for developing the competence and performance of their children. By spending time with children such as interacting together and sharing a child’s interest, the children will learn to make thoughtful choices, fulfill their commitments, acknowledge their mistakes and account for their actions from their parents (Borkowski et al., 2002).

In sum, parenting skills are defined in terms of the parent’s abilities to promote and support the physical, psychological, emotional, and social

development in their child. These parenting skills are the primary responsibility to and support for the child's life including parent-child communication, parent-child relationship, parental monitoring and supervision, parental modeling, and mentoring that overall express in caring, modeling, and monitoring and supervision.

2.2.3 Studies related to parent training and life skills training

To increase outcome, most effective programs address skills training in both child and parents. Many effective studies related to the combining of parent training and life skills training as include the following:

Kazdin and associates (1992) examined the effects of problem-solving skills training and parent management training on children (N = 97, ages 7-13 years) referred for severe antisocial behavior. Children and families were assigned randomly to 1 of 3 conditions: the problem-solving skills training (PSST) (N = 29), the parent management training (PMT) (N = 31), or the problem-solving skills training combined with parent management training (PSST+PMT) (N = 37). The major findings were that all treatments were associated with significant improvements in overall child dysfunction such as prosocial competence, and aggressive, antisocial, and delinquent behavior immediately after treatment and at 1-year follow-up. Furthermore, testing the between-groups differences directly using ANCOVAs, the PSST and PSST + PMT groups were better than the PMT-only group but were no different from each other on a number of measures. Among diverse measures, the results showed small and insignificant correlations in changes in the child and parents from pre-test to post-test and post-test to 1-year follow-up assessment. The results suggest that the gains achieved by post-treatment were maintained, at least up to 1 year. Longer term follow-up (e.g., 5 years) is needed to assess whether the gains are maintained and, if so, whether treatments vary in their effects.

Loveland-Cherry and colleagues (1999) conducted a home-based family intervention to enhance parenting practices proposed to be protective for adolescents and to decrease risks for alcohol use in adolescents. The samples were 428 adolescents with their families participating in a 5-year longitudinal study that started while students were in grade 4 finishing in grade 8. A significant main effect of time was found (F (4,421) = 17.00, $p < .001$), with alcohol misuse increasing over time. The

intervention was associated with a reduction in alcohol use (F (4,421) = 5.16, p < .001) and misuse (F (4,421) = 3.08, p < .05) for adolescents in the intervention condition group who were not using alcohol prior to the initiation of the program, not for those who were using alcohol before initiation of the program.

Webster-Stratton and colleagues' study (2001) described their prevention program to study the effectiveness of parent and teacher training (Incredible Years) for 272 mothers, their 4-year-old children and 61 teachers. The results demonstrated that mothers in the experimental group had significantly lower negative parenting and significantly higher positive parenting scores than control mothers following the 12-session program. Additionally, the findings presented the intervention effects for baseline to 1-year follow-up. Follow-up analyses consisted of ANCOVAs using follow-up construct scores and revealed a trend in the predicted direction for positive parenting, F (1, 192) = 3.50, p =.06, and the child conduct problems at home, F (1, 194) = 3.39, p =.07, constructs. No significant follow-up effects were found for the negative parenting construct. Analyses of mothers who attended a total of nine or more sessions revealed significant effects for the negative parenting construct, F(1, 110) = 3.81, p<.05, and positive parenting construct, F(1, 110) = 8.17, p < .01, and a trend for child conduct problems at home in the predicted direction, F(1, 125) = 3.27, p = .07.

This is in contrast to the findings of Mason and colleagues (2003). The researchers examined the relationship between growth in adolescent substance abuse and delinquency in a longitudinal over 4 years, randomized controlled study of the Preparing for the Drug Free Years Program (PDFY), a universal family-focused prevention intervention. Participants were 429 sixth-grade students and their families. The finding showed that the experimental group had a slower rate of linear increase over time in both substance abuse and delinquency compared with the control group. Interestingly, it was not statistically significant at the first two waves of data collections (at 9th and 21st month after completed intervention). The researchers suggested that longer term follow-up was needed to assess the research outcome, especially the preventive program in the target group who had less exposure to risks.

In contrast, Werch and associates (2003) studied the 1-year follow-up effects of the STARS Program (Start Taking Alcohol Risks Seriously) for family program in 6th graders, a 2-year preventive intervention based on a stage of acquisition

model, and consisting of nurse consultations and parent materials. A randomized controlled trial was conducted in 650 sixth-grade students from two urban middle schools. For the magnet school sample, significantly fewer intervention students were planning to drink in the next 6 months than control students (χ^2= 11.53, p =0.001). Magnet school intervention students also had less intention to drink in the future, greater motivation to avoid drinking and less total alcohol risk than control students. For the neighborhood school, intervention students had less total alcohol risk than control students (F (1,205) =4.09, p =0.04). These findings suggest that a brief, stage and risk/protective factor tailored program holds promise for reducing risk for alcohol use among urban school children.

Likewise, the study of Webster-Stratton and colleagues (2004) conducted a six condition intervention to study intervention outcomes for parent, child and teacher training in 159 families of 4- to 8-year-old children with early-onset conduct problems. Families were assigned at random to one of six conditions: parent training alone (PT); child training alone (CT); parent training plus teacher training (PT +TT); child training plus teacher training (CT + TT); parent and child training combined with teacher training (PT+CT +TT); and a waiting list control group. Following the 6-month intervention, all treatment groups resulted in significantly fewer conduct problems with mothers, teachers, and peers compared to controls. Children's negative behavior with fathers was lower in the 3 PT conditions group than in the control. Children showed more prosocial skills with peers in the CT conditions than in control (effects size =.29-.46). It seems that direct instruction with children is necessary for learning the skills needed for the replacement of negative behaviors with prosocial interactions with their peers. The short term results indicated that the three conditions that included PT components (PT, PT + TT, PT + TT+CT) showed large positive effects on parenting in both mothers and fathers compared to controls (effects size =.51-.91). Additionally, these three PT conditions showed moderate positive effects on child negative behaviors at home with both mothers and fathers compared with controls (effects size =.51-.67). All conditions that included the TT component showed moderate positive effects (effects size =.29-.46). Nevertheless, few significant additive effects of TT to the PT and CT combinations were found, so, TT should be considered if children are experiencing difficulty in school, particularly if the parent-teacher-child relationships are negative.

Adding TT to PT or CT improved treatment outcome in terms of teacher behavior management in the classroom and in reports of behavior problems.

This is congruent to this previous meta-analysis. McCart and colleagues (2006) studied a meta-analysis to examine the differential effectiveness of behavioral parent-training (BPT) and cognitive-behavioral therapy (CBT) for antisocial youth. The researchers studied 30 BPT and 41 CBT studies. The weighted mean effect size for all interventions was 0.40. The mean effect size of BPT was 0.47 more than the mean effect size of CBT that was 0.35. The researchers suggested that parents participating in BPT have stronger effect. Moreover, moderate outcomes were found of the 2 interventions, with BPT having a stronger effect for preschool and school–aged children and CBT having a stronger effect for adolescents. The results also indicate that there may be systematic differences in the outcomes associated with BPT and CBT when the setting of the intervention is considered.

Petrie and colleagues (2007) conducted a systematic review in parenting programs for preventing tobacco, alcohol or drugs misuse in children less than 18 years old in twenty studies. Statistically significant self-reported reductions of alcohol use were found in six of 14 studies, of drugs in 5 of 9 studies and tobacco in 9 out of 13 studies. Almost all parenting programs were found to be effective in reducing substance misuse in preteen and early adolescent children, although LST was found to be as effective as an intervention that included LST in conjunction with the parenting program. Three key features of interventions found to be effective were the strategies involving adolescents in family activities, maintaining good familial bonds and managing conflict, rather than just focusing on the issue of substance misuse. In addition, the most effective interventions in reducing substance misuse among children <18 appeared to be the emphasized development of social skills and sense of personal responsibility among young people, as well as addressing issues related to substance use and using active parental involvement.

Kaminski and colleagues (2008) studied a meta-analytic review of components associated with parent training program effectiveness. The finding demonstrated a significant, positive overall effect size, supporting the parent training program in preventing early child behavior problems. The mean effect size for parenting outcomes appeared larger than child outcomes. Moreover, the effect size for

parenting behaviors and skills were smaller than the effect sizes for parenting knowledge, attitudes, and self-efficacy. For child outcomes, larger effect sizes were observed for internalizing behaviors than for externalizing behaviors and cognitive or educational skills, for which larger effect sizes were observed than for children's social skills or prosocial behavior. For parenting behaviors and skills only, programs that included parent training in emotional communication reported significantly larger positive differences at immediate post-test.

Komro and associates (2008) studied the outcomes of Project Northland, Chicago. This study was a randomized controlled trial of a multi-component alcohol use preventive intervention for urban youth. The participants (n = 5,812 students) were primarily African Americans, Hispanics from low-income families in the 6th grade. The researchers found a non-significant trend (F (1, 20) = 3.78, p = 0.066) that suggested the ability to purchase alcohol by youthful-appearing buyers was reduced in the intervention communities compared with the control communities, but this could be due to chance. Secondary outcome analyses to assess the effects of each intervention component indicated that the home-based programs were associated with reduced alcohol, marijuana and tobacco use combined (mean = -0.049, SE = 0.019, Z =-2.45, p = 0.01), with alcohol use alone approaching statistical significance (mean =-0.024, SE = 0.013, Z = -1.86, p = 0.06).

Spoth and associates (2008) conducted a longitudinal study in 7th grade students to examine adolescent substance abuse outcomes of universal family and school preventive interventions followed to 5½ years past baseline. Participants were 1,677 students from 36 schools randomly assigned to the school-based Life Skills Training plus the Strengthening Families Program: for parents and youth 10–14 (LST + SFP 10–14) and LST-alone (control condition). Data were collected at baseline, 6 months later following the interventions, then yearly through the 12th grade. For all substance initiation outcomes, one or both intervention groups showed significant, positive point-in-time differences at 12th grade and/or significant growth trajectory outcomes when compared with the control group ($p < .05$). The significant substance initiation results for both the multi-component LST+SFP 10-14 and the LST-alone are consistent with earlier longitudinal findings. In addition, the higher risk sample

demonstrated significant, positive 12th grade point-in-time for both intervention groups on all measures.

Coombes and colleagues (2009) conducted the Strengthening Families Program (SEP) 10-14 for preventing substance misuse in Barnsley, UK. The aim of this study was to evaluate the SEP for children between 10 to 14 and their parents. For the parents/caregivers, the total difficulties scale and the emotional symptoms scale scores were significantly lower at the end of the course than at the beginning ($z = 2.538$, $p = 0.018$ and $z = 2.578$, $p = 0.010$, respectively). For children, the total difficulties scale was significantly lower at the end of the course than at the beginning ($z = 2.022$, $p = 0.043$). The communication scores, emotional management scores and drugs/alcohol use scores were significantly lower at the end of the SFP than at the beginning ($z = 4.715$, $p < 0.001$, $z = 3.490$, $p < 0.001$ and $z = 2.723$, $p = 0.006$, respectively). The total scores were also significantly different. Qualitative evidence indicated that families who participated in the study found the SFP 10-14 useful in preventing young people's alcohol and drug use.

To summarize, the empirical findings provide alternative intervention using parent participation in child preventive programs seem to be the best practice. As predicted, strengthened protective factors included parenting competence, child life skills, home-school involvement, and a positive classroom environment all viewed as a strategy for child risk prevention and reducing behavioral problems. In addition, the programs should encourage cooperation through methods such as creating permanent communication between home and school, training of educational promoters or trainers to enable prevention, comprehensive family skills approaches, distribution of user-friendly materials and using interactive techniques.

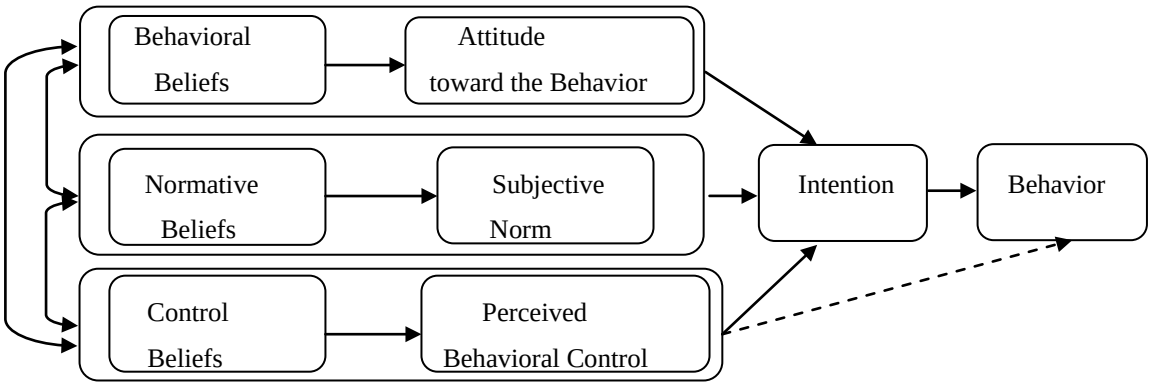
2.3 The theory of planned behavior (TPB)

The theory of planned behavior (TPB) is an extension of the widely applied theory of reasoned action that aims to predict and understand motivational influences on intentions, behaviors, and outcomes of behavior (Ajzen, 1991). The TPB was developed in the late 1980s to overcome the central criticism that the theory of

reasoned action does not consider situations where people behave under an incomplete volitional control (Ajzen, 1991; Luszczynska & Sutton, 2005). It is based on the assumption that human behavior is reasoned, controlled or planned from the systematic use of available information accounted the consequences of the behavior of interest (Ajzen, 1991; Fishbein & Ajzen, 1975). Ajzen added perceived behavioral control to control over the opportunities, resource, and skills necessary to perform a behavior. The perceived behavioral control can predict behavior together with intention. Intention, in turn, is determined by three factors: attitude toward the behavior, subjective norms, and perceived behavioral control.

In accordance with the TPB, specific behavioral intentions and behavior are the results of the person's beliefs (Ajzen, 1991). These beliefs function on the individual's perceptions about the positive or negative consequence of engaging in the behavior (behavioral beliefs), about the concerning significant referents and their approval or disapproval of particular behaviors (normative beliefs), and about the factors that can facilitate or impede performance of the behavior (control beliefs). These three beliefs are the antecedents of attitudes toward the behavior, subjective norms, and perceived behavioral control, respectively.

The proximal factors relationships among the theory constructs are depicted in Figure 2.1.



Source: Ajzen, I. (2005). *Attitudes, Personality and Behavior*. (2nd ed., pp. 126). Maidenhead-Berkshire, England: Open University Press.

Figure 2.1: The schematic representation of the theory of planned behavior

2.3.1 The major constructs of the theory of planned behavior

This theory contended three constructs to a person's intention to perform an identified behavior that people make conscious decisions by considering information and potential consequences of the behavior before deciding to engage or not engage to perform a given behavior (Ajzen, 1991; Ajzen, 2005).The relevant literature is described and incorporated as follows.

Attitude toward the behavior

Attitude toward the behavior is defined as the favorable and unfavorable cognitive and affective beliefs concerning the behavior of interest (Ajzen, 1991). It is based on the summed set of accessible behavioral beliefs about the consequences of performing the behavior in positive or negative outcomes and their evaluation of those beliefs. The more a person perceives the favorable cognitive and affective beliefs, the more they will intend to perform that behavior (Ajzen, 1991).

Subjective norm

Subjective norm is the person's perception that important others support the performance or nonperformance of behavior (Ajzen, 2005). Therefore, subjective norm is determined by the total set of salient normative beliefs that are the product of the perceived pressure from important referents to perform a behavior and the motivation to comply with these referents. The more a person perceives their important referent think they should or should not perform a behavior, the more they will intend to perform that behavior (Ajzen, 1991).

Perceived behavioral control/Self-efficacy

Perceived behavioral control (PBC) refers to the individuals' perceptions of their ability to perform a behavior. It is related to an individual's perception of how difficult the task will be to perform. PBC is believed to be a critical aspect of behavior change processes. It can influence behavior directly or indirectly through intention. Within the TPB, PBC is motivational for intention and a direct association is noted between perceived behavioral control and intention that is not mediated by attitude and subjective norm. Ajzen (1991) describes that this is because the person who believes

that he does not have resources or the opportunities to perform a given behavior is unlikely to have strong intention even if he has a favorable attitude and subjective norm. Thus, perceived behavioral control not only contributes to the predication of intentions over and above the effects of attitude and subjective norm, it also directly influences behavior (Ajzen, 2002). In addition, two critical features of PBC are demonstrated about its effect on intention and behavior. PBC, together with behavioral intention, can be used directly to predict behavior of interest. On the one hand, the theory can be offered to explain the direct link between PBC and intention. As the theoretical rationale, the more positive attitude and subjective norm for effect on the behavioral intention, the higher the PBC, the higher the intention to perform the behavior (Ajzen, 1991).

According to the conceptual foundation of theory, PBC represents elements of self-efficacy such as the ease or difficulty of performing the behavior or confidence in one's ability to perform it, and controllability that means the beliefs about the extent to which the performance of the behavior is up to the individual (Ajzen, 1991; Ajzen, 2002). Empirical research provides considerable evidence of the distinction between measures of self-efficacy and controllability (Ajzen, 2002; Rhodes & Courneya, 2003). The perceived self-efficacy and the perceived controllability are conceptually independent of internal or external locus. According to Ajzen' s study (2002) that summarizes five studies designed to examine the factorial structure of perceived behavioral control, it appears that perceived self-efficacy is a significant factor to predict intention and sometimes behavior whereas controllability is only sometimes significant to predict behavior. The combination of both factors significantly improves production of intentions but not of behavior. From this study, Ajzen (2002) suggested that PBC is similar to Bandura's concept of perceive self-efficacy and for measurement, PBC should include self-efficacy and controllability.

Intention

Intention is a person's cognition in the willingness or the effort, which they are planning to exert, to perform the given behavior. The intention is determined by the following three constructs: attitude, subjective norm, and PBC, with each construct weighted for its importance in relation to the behavior of interest (Ajzen,

1991; Ajzen, 2005). In turn, attitude, subjective norm, and PBC are determined by the underlying belief structure, which is referred to as behavioral beliefs, normative beliefs, and control beliefs. Thus, the effects of the three determinants on behavior are mediated by the intention. Generally, the intention to perform a behavior is strong when performance of a particular behavior elicits a favorable attitude from the individual, the surrounding social environment is conductive to the behavior, and the individual feels confident of their ability to perform the behavior (Ajzen, 2005; Fishbein & Ajzen, 2010). According to Ajzen (1991), intention can change over time, it is viewed as consisting of action, target of that action, the context of the action, and time that influences intention change.

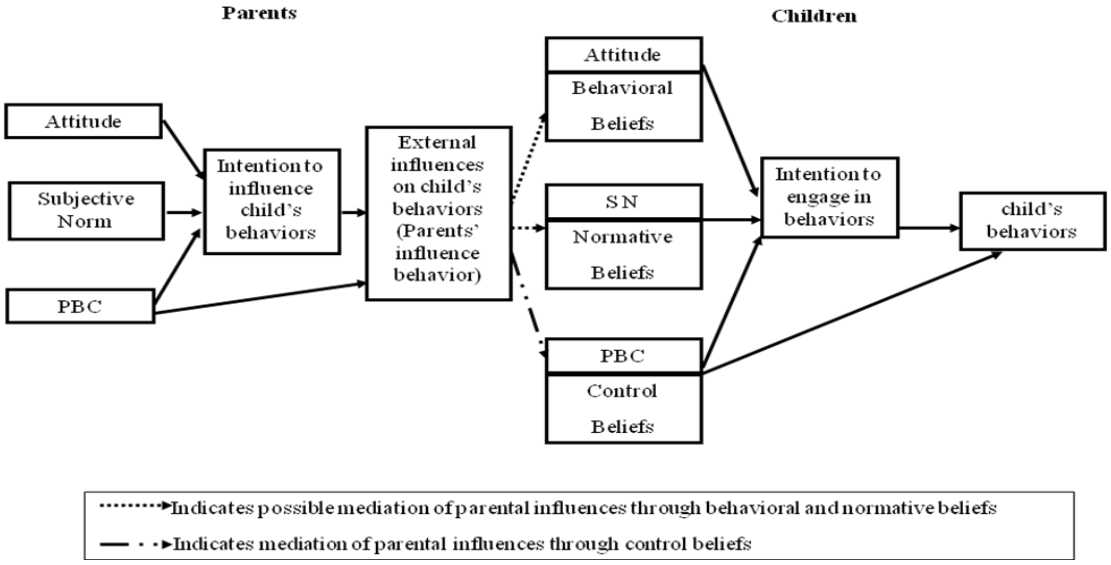
The theory of planned behavior is very useful to predict the cognitive determinants of behavioral intention and behaviors, particularly the predictive ability in health-related behaviors. Although the TPB is often used to study health related decision making behavior in youth and children, limited empirical research has been conducted on the experience of parenting in changing child behavior. Only a handful of programs have developed the behavioral parenting intervention for enhancing parenting skills to support the child's behavior development including child's life skills development and tailoring these parenting interventions based on the TPB.

2.3.2 Mediation of parental effects based on the TPB

Mediation is known as the effect of these factors on behavior, such as age, sex, or parental supervision, at least partially, by the fact that these factors determine attitude, subjective norm, perceived behavioral control, and intention, which in turn determines behavior. Based on the mediation of parental effect, the family-based interventions would be designed to change child risk behaviors by changing the parenting behaviors of interest (Hutchinson & Wood, 2007). Parenting behaviors would be modified by intervening to change parents' beliefs about the behaviors and subsequently their intentions to engage in the behaviors. Many investigators indicated that the mediation of parental influences function through parents' behavioral intention and perceived control that are determined by underling belief structures. Parents' attitudes, subjective norms, perceived behavioral control, intentions, and behaviors are

the determinative factors influencing their child's determining (Harakeh et al., 2004; Hutchinson et al., 2003; Hutchinson & Wood, 2007).

A parent-based expansion of the theory of planned behavior is one of the best models to use for the family-based interventions. Many research findings showed the significant association between parents' behaviors and beliefs and child behavior that appear to be mediated through the child' perceived behavioral control or control beliefs and attitude, such as parent–child communication, would be mediated through one or more of key constructs from the TPB (O'Donnell et al., 2005; Hutchinson & Wood, 2007; Villarruel et al., 2004). The proposed expanded theory is represented in Figure 2.2.



Source: Hutchinson & Wood (2007). Reconceptualizing adolescent sexual risk in a parent-based expansion of the theory of planned behavior. *Journal of Nursing Scholarship, 39*(2), 141-146.

Figure 2.2: The schematic representation of parent-based expansion of the TPB

In a parent-based expansion of the TPB, parents are viewed as mediators between environmental factors and parenting strategies. The parenting process acts as proximal external influences of a child's behavioral beliefs, normative beliefs, and control beliefs toward engaging in a behavior of interest (Hutchinson & Wood, 2007). In the context of the family, children perceive their parent's perception through parents'

performance and parenting skills such as warm and consistent discipline, parental modeling, monitoring, and supervision (Ajzen, 1991; Hutchinson & Wood, 2007).

As shown in the Figure 2.2, the traditional TPB is incorporated into the expanded model. The right side of the model is the traditional TPB. It shows that a child's intention is the primary determinant of engaging in risk behaviors and negative behaviors. Additionally, child's intention is directly determined by the child's behavioral, normative, and control beliefs. The left side of the model shows the parental effect followed to a parent-based expansion of the TPB that the parenting behaviors of interest are themselves primarily determined by the parent's intention to perform those behaviors. Moreover, several family-based studies found that the parenting beliefs of interest (behavioral, normative, control) also pertain to the parents' beliefs about their performance of parenting behaviors, not the children's behaviors (O'Donnell et al., 2005; Hutchinson & Wood, 2007; Villarruel et al., 2004). Therefore, the parent-based intervention should elaborate in knowledge and benefit of those behaviors of interest for support parents' belief.

In keeping with the TPB, the external influence of greatest interest is parenting behavior through parenting process and parenting skills. It is directly determined by parent's intention that is determined by behavioral beliefs, normative beliefs, and control beliefs regarding the behaviors. The parenting process has been shown to be influential include parent-child communication, parental monitoring and supervision, parent-child relationship, parental modeling, and values transmission (Borkowski et al., 2002; Hutchinson & Wood, 2007; Kumpfer & Alvarado, 1998; Riesch et al., 2006). Especially, parent-child communication is thought to be one of the most significant influences of child's beliefs and behaviors (Hutchinson & Wood, 2007). In addition, the parent's recommendation is the primary reason most children pursue suitable behaviors. Similarly, the approval of important persons, i.e., parents, is the primary reason most children should support life skills development by their parents. The parenting process has repeatedly and properly been processed in child rearing to affect on less risky children beliefs and behaviors.

Overall, based on a parent-based expansion of the TPB, the parents are more likely to discuss in life skills development and risk behavior topics with their children if they intend to do so and if they view child life skills development

positively, believe that important others would approve of doing so, and believe that they have the skills necessary to engage in parenting process for their child life skills development effectively.

2.3.3 Studies related to the parent-based expansion of the TPB

Further, empirical reviews support the TPB across a wide range of behaviors and the determinants influencing those behaviors including the parents' and child's behaviors. The TPB provides a useful theoretical framework to explain how the information of parents influences their child and the knowledge in parents' management for improving their child's behavior and health. The examples of studies related to parent-based expansion of the TPB are as follow.

A prospective study conducted by Hutchinson and colleagues (2003) provided the first evidence of mediation of effects. The researchers examined the relationship between mother–daughter communication about sex and selected sexual risk behaviors among 219 sexually experienced females, 12 to 19 years of age, recruited from an inner-city adolescent medicine clinic in Philadelphia. They found that condom use self-efficacy (control beliefs) was a mediator for the effects of mother-daughter sexual-risk communication on the occurrence of unprotected intercourse among adolescent daughters. These recent findings are consistent with those from earlier studies, which showed links between condom use self-efficacy and condom use (Hutchinson, 2002; Villarruel et al., 2004). In this study presented that the mediation of parental influences through control beliefs was the strongest mediation of effects in expanded model.

Likewise, Harakeh and associates (2004) used the SEM to test the mediation effect of parental factors on adolescent smoking in a longitudinal study on 1,070 adolescents in the Netherlands. The finding showed that the parent-child relationship influenced both adolescents' smoking and smoking onset indirectly through adolescents' attitude and perceived behavioral control, whereas the parental knowledge affected the same adolescent behaviors indirectly through adolescents' social norm and perceived behavioral control. Parents smoking directly affected adolescents' attitude, current adolescents' smoking, and smoking onset. Similarly, Buhi and Goodson (2007) studied the predictors of adolescent sexual behavior and

intention from 69 published studies. The results demonstrated parental monitoring, parental support, and perceived subjective norm in parental attitude in engaging risk behaviors and parent-child relationship can predict adolescent sexual behavior and intention, and particularly the study found that increased parental monitoring can exhibit a largely protective effect on sexual activity initiation.

Similarly, the results obtained by Hutchinson and Montgomery (2007) used the influence of parent-teen sexual risk communication on the sexual risk attitude, beliefs, and behaviors communication in sexual risk behavior among 488 African American students using cross-sectional surveys. The findings showed that influence of parent-teen sexual risk communication was also significantly associated with adolescents' sexual risk attitude, beliefs, and intention ($p < .05$). The importance of parents' opinion was significant with sexual risk behaviors both from mother and father (r=.210, p <.01 and r =.372, p <.01, respectively). The parent-teen sexual risk communications were significant with sexually active behaviors during the past 3 months (r =-.184, p<.01 and r =-.118, p <.05, with mothers and fathers, respectively).

Furthermore, a longitudinal study by Van De Ven and colleagues (2007) provided the results to support the influence of parental factors on their child. The researchers used the SEM to test the TPB in predicting smoking onset among 346 asthmatic adolescents and 3,733 non-asthmatic adolescents. The results showed attitude, perceive behavioral control, and subjective norm of parents predicted their smoking onset and adolescents with a more positive attitude towards smoking, lower perceive behavioral control and a high pro-smoking subjective norm of parents had a higher intention to smoke and earlier onset of smoking. The regression weights of the model of asthmatic adolescents are higher the weights in the model of non-asthmatic adolescents. However, different results were obtained from the longitudinal logistic regression study of Van Zundert and Engels (2009). The effects of parental factors on adolescent smoking relapse after cessation among 135 adolescents in the Netherlands were examined. They found that only expected parental support can predict smoking relapse. Parental smoking, smoking cessation-specific parenting, and parental norm on smoking cessation were found not to be related to adolescent smoking relapse.

Interestingly, little research has directly used the TPB as a theoretical framework to examine parents' decisions and cognitions (O'Donnell et al., 2005; Rhodes et al., 2009; The office of national drug control policy, 2009; Villarrabia, 2006; Villarruel et al., 2008). Overall, the results of these studies are inconsistent. Only three of the studies reported that attitude, subjective norm, and perceived behavioral control were significant predictors of intention. The evidence-based study of Villarruel and colleagues (2008) by a randomized controlled trial was designed to test a parent-adolescent intervention to increase parent-adolescent sexual risk communication among 791 Mexican parents. The result illustrated significantly more general communication ($p<.005$), more sexual risk communication ($p<.001$), and more comfort with communication ($p<.001$) than parents in the control. Moreover, the finding provided the result that behavioral, normative, and control beliefs significantly mediated the effect of the intervention on all communication outcomes. Similarly, Villarrabia (2006) examined the correlates of parents' intentions to serve vegetables to their children (grade 3-5) and parents' behavior. The results revealed attitude ($r=.56$) had the strongest relationship with intention, followed by perceived behavioral control ($r=.52$) and subjective norm ($r=.35$). In this study, the parents' intention had the strongest association with behavior ($r=.527$) and PBC ($r=.53$), respectively. In addition, the Office of National Drug Control Policy (2009) evaluated a mass media health campaign to reduce teen prescription drug abuse by applying the TPB. The 1200 parent interviews were conducted by randomized digit dialing by telephone. The results reported the advertising-awareness parents were significantly more likely to feel that teen prescription drug use was a prevalent and serious problem. Parents who saw the advertising campaign were significantly more likely to report intentions to control the supply of prescription drugs in the home, monitor prescription drug quantities and control access and set clear rules for teens about drug use.

In contrast, O' Donnell and colleagues (2005) found only subjective norms and PBC to be directly significant predict parents' behaviors for promoting saving sex in their child. The results showed that the parents in the intervention group were significantly more likely than controls to score high on indexes of communication with children, self-efficacy to discuss sexuality, and perceived influence over youth's behaviors (Odds ratios, 1.9-2.5). Family support and rules partially mediate the

relationship between treatment condition and behavioral risks. On the other hand, the results of Rhodes, Naylor and McKay (2009) were contrary to those above. They examined the pilot study in the family physical activity planning intervention among 65 families. The results reported that both parents' intention and perceived control over family physical activity were not different after intervention, whereas the intervention resulted in significant time effect for family physical activity and favored increased physical activity from baseline to 4 weeks post-test ($F= 4.23$ to 17.63; $n^2 = .06$ to $.22$).

Therefore, for studies of parent training programs, the theory of planned behavior provide a useful framework for investigating and predicting parents' beliefs, and intention in perform the appropriate parenting behaviors to support their child across a variety of behaviors. All above findings provide the incredible support that parents' behavioral, normative, and control beliefs significantly mediated the effect from parents variables through child outcomes. In sum, the theory of planned behavior can explain and more explicitly incorporate the influences of parents on child behavior. The family-based intervention based on the theory of planned behavior can explain clearly the relationship between parent's attitude, belief, intention and behavior and the same variables in their child.

In conclusion, children should benefit the most from the prevention programs that are tailored to their unique developmental levels, experiences, and affected behavior factors. Thus, the development and evaluation of child preventive programs should consider the child's environment including parents, peers, and teachers as well. Implementation of parent training programs within a school setting provides a possible solution to child behavioral problem issues as stated by the reason above. However, the parent training programs in Thailand are still difficult to integrate within a prevention model, primarily because of the expense of the service and other barriers to parents' engagement such as time and scheduling demands. Therefore, integration of parent intervention into school-based intervention is very beneficial yet challenging.

CHAPTER III
MATERIALS AND METHODS

This chapter describes the research method approaches. It consists of research design, population and sample, research instruments, data collection and data analyses.

3.1 Research design

This study was a quasi-experimental, pretest-posttest design with a comparison group. This research design was conducted to yield reliable evidence of the effects of the program. Comparison between the experimental (child life skills training program and parent training program) and the comparison (child life skills training program only) groups repeatedly measured the maintained outcomes across time points of assessments. Data collections were processed at baseline (pre-test), immediately after the intervention (posttest 1), and at the first (posttest 2) and third month follow-up after the completion of the intervention (posttest 3) as shown in Figure 3.1.

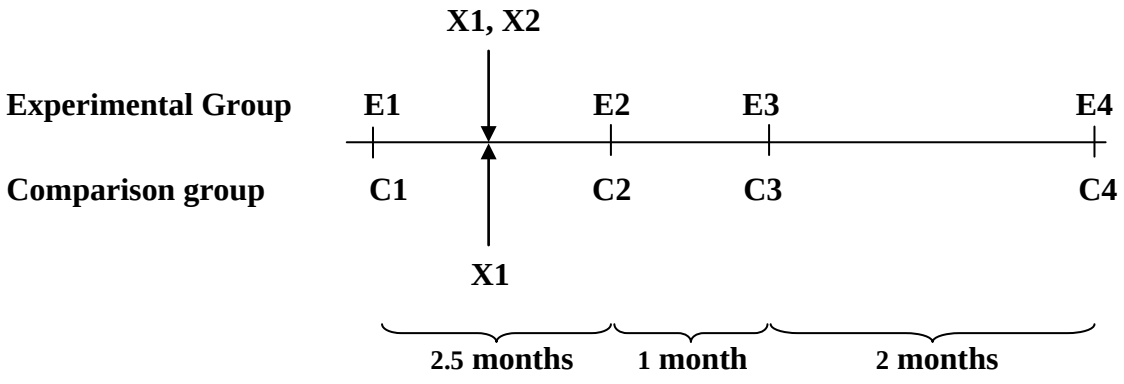


Figure 3.1: The research design

Experimental Group **:** Participants (the fifth graders) received the life skills training program ($\mathbf{X_1}$) and their parents received the parent training program for child life skill development ($\mathbf{X_2}$).

Comparison Group **:** Participants (the fifth graders) received the life skills training program ($\mathbf{X_1}$) while their parents did not receive the parent training program.

$\mathbf{X_1}$ **:** The child life skills training program

$\mathbf{X_2}$ **:** The parent training program for child life skill development

$\mathbf{O_1}$ **:** Baseline data collection and assessments (pretest)

$\mathbf{O_2}$ **:** Data collection and assessment at immediately after the intervention (posttest 1)

$\mathbf{O_3}$ **:** Data collection and assessment at the first month follow-up after the completion of the intervention (posttest 2)

$\mathbf{O_4}$ **:** Data collection and assessment at the third month follow-up after the completion of the intervention (posttest 3)

3.2 Population and sample

The target populations were the fifth graders and their parents who were living in an urban area. Additionally, these children were studying in elementary schools under the Office of the Basic Education Commission (OEBC), Ministry of Education, Thailand.

Regarding the research setting, the study was conducted at elementary schools under the OEBC. This school was selected from one of the catchment schools in the Human Potential Development in Thai People Project of the Faculty of Medicine Ramathibodi Hospital in Bangkok: Samsen Kindergarten Elementary School and Soon Misakawan Elementary School in Bangkok. These two schools were coeducational government elementary schools, general school in an urban area in Thailand with curriculums of basic courses and supplementary courses in accord with the learning time structure as prescribed in the Basic Education Core Curriculum B.E. 2551 (A.D. 2008), which were evaluated using the standard education indicators from

the OEBC. The purposive sampling was used to recruit the sample in both school and grade levels. Samson Kindergarten Elementary School was selected as the sample school via drawing lots as the representative sample school of this study.

3.2.1 Sample of the study

The subjects for this study consisted of the fifth graders of a government elementary school and their parents. With regard to the research policy of the Human Potential Development in the Thai People Project, the fifth graders were selected as a purposive sample because they were school-age students who were able to read and write Thai well, had ability to think critically, and had relationships with others to participate in the research project.

In addition, the subjects' parents were also recruited in the study after their children. The parents in this study comprised the subjects' father or mother. They were living in Bangkok. The inclusion criteria in this study are described below.

Inclusion criteria for the participants

Eligible participants were recruited in the study following the criteria described below.

1. The fifth graders can read and write Thai.

2. Both fifth graders and their parents were willing to participate in the study, and both of them gave consent for them to participate in this study.

Exclusion criteria for the participants

1. Fifth graders were excluded if they had participated in any other formal potential prosocial skills development program, for example, leadership development and drug prevention programs.

2. Fifth graders were excluded if they attended less than 80% of the sessions (8 sessions) or less than 80% (or 8 sessions) in child life skills training program or if their parents attended less than 80% (or 2 sessions and 8 home activities) in the parent skills training program.

3. Fifth graders were excluded when they asked to discontinue their participation in the life skills training program.

Inclusion criteria for the fifth graders' parents

For this study the parents of the eligible students were also recruited in the study conforming to the following criteria.

1. The subjects comprised parents whose fifth grade child received the life skills training program and who were living with the fifth grade students.

2. The parents were included if they could read and write Thai.

3. Both parents and the fifth grader were included if they were willing to participate in the study and sign consent forms.

Exclusion criteria for the fifth graders' parents

1. Parents were excluded if they had participated in any other formal potential parent skills development program, for example, a drug prevention program.

2. Parents excluded if they attended less than 80% of the sessions (or 2 sessions and 8 home activities) in the parent skills training program or if their children attended less than 80% of the sessions (or 2 sessions and 8 home activities) in the life skills training.

3. Parents were excluded if they asked to discontinue their participation in the parent skills training program.

3.2.2 Sample size

The approximate sample size for the single group repeated measures design was determined based on statistical power analysis, at a significance level of .05, a desired power of .80, and the average correlation of the subjects' responses to the number of repeated measures as shown in Table 13.5 (Stevens, 2009, p. 430).

For this study, the researcher referenced a previous study of the effectiveness of family skills training on traditional Asian discipline employing a randomized controlled experimental study design. This study conducted a parent training program for improving their child's outcomes (behavioral problems and social competence). This study showed a significant increase in positive parenting as well as a significant decrease in numbers of child problem behaviors and the finding indicated that the parenting program presented from medium to large effect size (Kim et al.,

2008). Regarding the finding, the average effect size (d) was .62. Therefore, the average correlation (*r*) was computed using the equation:

$$r = \frac{d}{\sqrt{d^2 + 4}}$$ (Cohen, 1988, p. 23)

The average correlation (*r*) translated from *d* (the effect size) determined the average effect sizes in the previous study, i.e.

$$r = \frac{.62}{\sqrt{.62^2 + 4}} = 0.297$$

According to Stevens (2009), the sample size for the single group repeated measures design with the average correlation = 0.30, effect size = 0.49, k (number of repeated measures) = 3, and α = .05, so the sample size should be at least 17 subjects per group (Stevens, 2009, p. 430).

Regarding a previous Thai family-based study (Thanisawanyangura, 2005), the attrition rate comprised 20% of the sample size, and an extra four persons were added to each group. The study then had to enroll at least 21 participants per group to prevent subjects missing during follow-up intervention and missing data. However, in all 53 fifth graders and their parents actually selected in both groups completed the study, comprising 26 fifth graders and their parents in the experimental group and 27 fifth graders and their parents in the comparison group.

3.2.3 Sampling procedures

The details of the sample selection are as follows.

1.) Samsen-Kindergarten Elementary School was randomly selected via drawing lots method by the researcher.

2.) Based on the Human Potential Development in Thai People Project Committees, the fifth grade students comprised the selected sample. The school had 4 classrooms at the fifth grade level in this targeted school with 36-40 students per room.

3.) The research assistant, blinded to the number of class and type of group, selected two classrooms by random and assigned groups to the classrooms. The baseline data were collected from those two classrooms with all eligible students

according to inclusion criteria. All students from those two classrooms were recruited into the life skills training program.

4.) Eligible fifth grade students' parents were also recruited from class lists corresponding to their children. Then the parents that met the inclusion criteria were invited to the study.

5.) The researcher cooperated with school administrators to send the invitation letters to the parents. The parents who were willing to participate were recruited for the intervention. All parents in both groups completed the baseline assessment before the intervention started. Only the parents of the experimental group received the parent training program, whereas those of the comparison group did not receive the parent program.

The sample selection procedures were applied to recruit the sample as mentioned in the following flow chart (Figure 3.2).

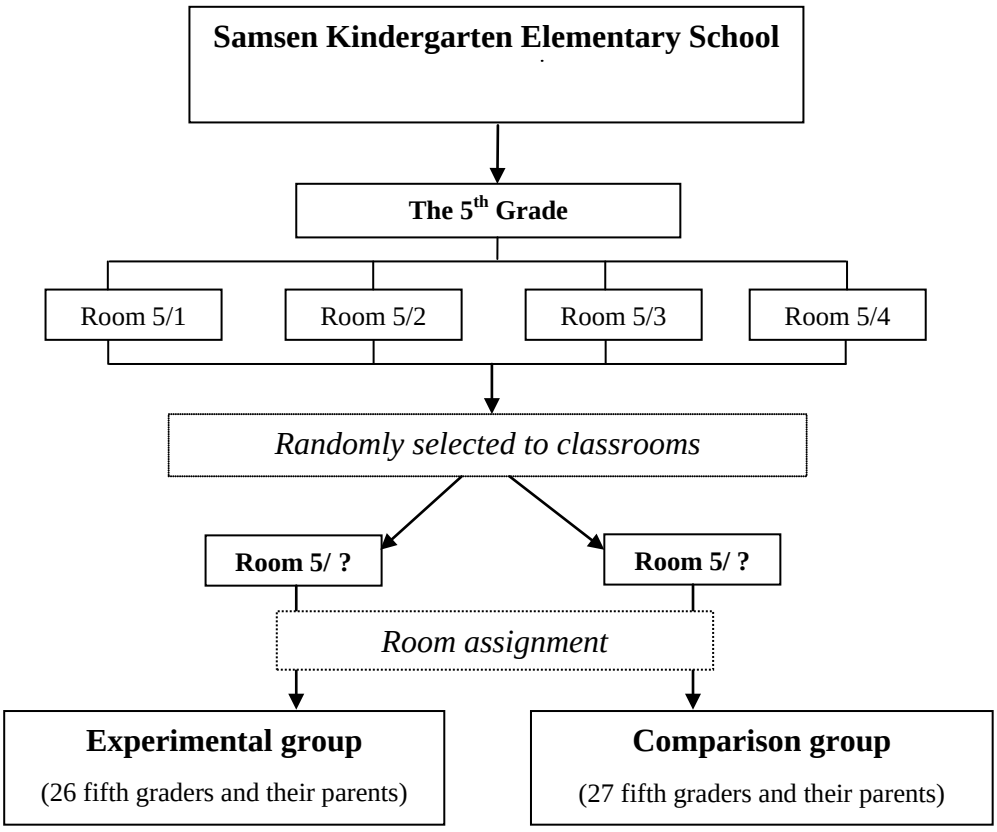


Figure 3.2: Sample selection procedures

3.3 Instrumentation

Instruments for this study were categorized into two groups: as the instrument for intervention and instrument for data collection as described below:

The instruments for intervention

3.3.1 Child life skills training program

The child life skills training program was developed by applying the key constructs of the TPB and related works. The primary goal of the program was to develop the school-age children's life skills by providing a knowledge-base concerning the development of life skills and practicing those life skills. This program was specially designed for use with school-age children based on the core concept of self-management skills and moral skills relevant in the Thai context that had been obtained from the parent-teacher workshops in the Human Potential Development in Thai People Project (Phuphaibul, 2009).

This program consisted of ten sessions for ten skills, including self-esteem, critical thinking, decision-making and problem solving, coping with emotions, honesty, generosity, sufficiency, self-responsibility, family responsibility, and social responsibility skills (Phuphaibul, 2009). Those skills were developed through interactive techniques including demonstration, role play, games, behavioral rehearsal, group discussion, and social reinforcement in both small and large groups. This program was conducted in 60-minute sessions weekly until the program was completed. Each session began with providing the skill's definition and benefits. In addition, a life-skill cartoon book containing the skill content was an advantageous media used in the sessions. Each session was sequentially organized on four processes, including promoting attitudes toward life skills development and benefit, increasing subjective norms, developing self-efficacy and promoting intention in order to behave in develop life skills in school-age children (see Appendix F).

This program was scheduled as sequential sessions as described below.

Session I: Developing Self-esteem Skills This session was conducted to develop school-age children to recognize one's own personal worth and strengths and identify self-efficacy.

Session II: Developing Critical Thinking Skills This session was conducted to develop school-age children to think critically, to analyze beliefs, attitudes, values, and relevant information from media and others based on reasonable evidence or facts.

Session III: Developing Decision-making & Problem Solving Skills This session was conducted to develop school-age children to have abilities to evaluate information both in choices and results of the decision of that choice and advice to make informed decisions, assess the advantages and disadvantages of different options, find constructive solutions to problems, and determine alternative solutions.

Session IV: Developing Coping with Emotions Skills This session was conducted to develop school-age children to have abilities to handle emotions such as violence and anger, which can negatively influence health.

Session V: Developing Honesty Skills This session was conducted to develop school-age children to have abilities to be honest and truthful based on their integrity.

Session VI: Developing Generosity Skills This session was conducted to develop school-age children to have ability to perform the personal behavior in giving help to others and showing kindness in one's attitude to and treatment of others.

Session VII: Developing Sufficiency Skills This session was conducted to develop school-age children to have ability to perform the personal behavior in moderation, reasonableness, and the need of self-immunity for sufficient protection from impacts arising from internal and external changes.

Session VIII: Developing Self-responsibility Skills This session was conducted to develop school-age children to have ability to respond to personal basic needs and their own duties.

Session IX: Developing Family Responsibility Skills This session was conducted to develop school-age children to have abilities to show concern, respond positively in the family and cooperate with other members to take care for one's own family.

Session X: Developing Social Responsibility Skills This session was conducted to develop school-age children to have ability to show concern, respond

positively in society, to take care and protect one's own community and social environment.

This child life skills training program was reviewed by five experts for content validity and revised according to those five experts' recommendations. Then two research assistants were trained in the intervention process before the program was conducted. Research assistants were trained to give advice about the process and construction in the learning hour focused on participatory learning and group process, objectives, major principles in each skill development based on the TPB, key words and the materials used in each session in the life skills training program. They had trial practices with the researcher and pilot classroom before the real practice in the life skills training program.

3.3.2 Parent training program

This parent training program was specially designed by the researcher to train the parents. This program was based on the theory of planned behavior. The primary goals of this program were to promote parenting skills to support their child's life skills development and to develop their child's life skills. This program focused on promoting and providing persuasive information in parenting skills and those ten life skills for the parents addressing the salient beliefs, attitudes, subjective norms, self-efficacy and intention to support their child's life skills development. In addition, this program was designed to target the empirically-based factors originating in the Thai family environment that were associated with child behaviors.

The interactive techniques and participatory learning used in program included: coaching, facilitating, role modeling, giving feedback and group discussion. Each session began with a group discussion of the parents' experiences as well as parenting skills and child-rearing practices. Then the researcher provided knowledge and practices for each life skill. The core contents contained guidelines for developing those ten life skills using the relevant parenting skills based on key constructs of the TPB (see Appendix F). The essential parenting skills used in the child life skills development process was parent-child relationship, parent-child communication, parental monitoring and supervision, parental modeling and mentoring. The program's contents are described below:

Session I: This session was conducted to promote parents to develop their child's life skills using the relevant parenting skills. The content consisted of knowledge of child development, how to develop child life skills and the five child life skills: (1) self-esteem, (2) critical thinking, (3) decision-making and problem solving, (4) coping with emotions and (5) honesty. Moreover, the program provided guidelines for appropriate parenting skills for promoting child's attitudes toward life skills, best supporting the child's subjective norms, increasing the child's self-efficacy and promoting the child's intention to develop those five life skills. Additionally, group reflections and discussions were conducted for better understanding in the parent group, too.

Session II: This session was conducted to promote parents to develop their child's life skills on the life skills six to ten using the relevant parenting skills. The content consisted of the life skills six to ten: (6) generosity, (7) sufficiency, (8) self-responsibility, (9) family responsibility and (10) social responsibility. Furthermore, the program presented guidelines for appropriate parenting for promoting the child's attitudes toward life skills, best supporting the child's subjective norms, increasing the child's self-efficacy and promoting the child's intention to develop the life skills six to ten. In addition, group reflections and discussions were conducted for better understanding in the parent group as well.

Session III: This session was conducted for over all reflections and discussions of child life skills and parenting skills development.

This parent training program was reviewed by five experts for content validity (see Appendix B) and the program was revised according to those five experts' recommendations. Then the researcher conducted trial practices with the parent group consisting of 5 parents before the real practice in the parent training program to identify the congruent content and appropriate processes.

3.3.3 Life skills cartoon book series

The life skills cartoon book was a colorful pictorial cartoon book communicating the life skill content (each skill in one cartoon book). Each script, dialogue, and illustration was elaborately developed by the Human Potential Development in Thai People Project Team (Phuphaibul, 2009). These life skills cartoon book series were designed to be used as the instructional media in the child

life skills training program. These cartoon series consisted of 10 books and each book's content consisted of the ten life skills, and work sheet exercises at the back of each book. The cartoon books are described below.

Book 1	*I'm proud of myself*	Book 6	*Generous or not?*
Book 2	*It's bad because…*	Book 7	*Sufficiency*
Book 3	*Why must you select?*	Book 8	*Whose responsibility? 1*
Book 4	*Go far away from Eak…Please!*	Book 9	*Whose responsibility? 2*
Book 5	*This pencil belongs to.....?*	Book 10	*Whose responsibility? 3*

Moreover, this life skills cartoon book series contents and scripts were verified by 3 media experts as well (see Appendix B). Then cartoon books were piloted to recognize content and appropriate processes, and properly use in the program by the research assistants before using in the child life skills training.

3.3.4 The parent handbook

The parent handbook was a competency-based handbook. It was developed by the researcher. The content consisted of the fundamental and essential parenting skills, the methods for developing parenting and child life skills, and the model examples for each skill. This parent's handbook was designed to be used as the instructional media in the parent training program and facilitate the parents to participate in program. A content outline was drawn from the core constructs of the TPB, including improving attitudes and subjective norms that were empirically linked to benefits and the need of parenting skills for parents and children, increasing parenting self-efficacy, especially parents' abilities and techniques for communicating with children and providing strategies to develop child capabilities and to control behaviors, enhancing intention through attitudes, subjective norms and self-efficacy to develop life skills.

In addition, the parent handbook's content derived from the parent training program was validated by 5 experts in the parent program validation process. The scripts and pattern were verified by 3 media experts as well (see Appendix B). Trials to assess linguistic understanding in the parent handbook were performed among 5 parents. Moreover, the researcher piloted the book to recognize appropriate processes and properly use in the parent training program.

3.3.5 Log book

The log book was the notebook used for daily recording of experiences by the fifth graders and their parents. It was developed and designed by the researcher. It was used to record experiences in their parenting skills and child life skills, how to use the relevant skills to manage and handle, and outcome as a daily record. An example situation was put on the first page to make it easy to understand how to record. The log book was designed to be separately recorded by children and their parents. The data were analyzed by content analysis to confirm the research result.

3.3.6 Child-parent work sheets

Child-parent work sheets were the weekly homework for the children and their parents. These work sheets were developed by the researcher. The objectives were to facilitate parents and child to participate in the program at home and to understand each other regarding the way they understood, believed, thought, planned, and expected outcome for each skill. It worked as the child-parents homework designed to be the extended activities of child life skills training that were completed by children and their parents every week. The sequenced questions were planned based on the TPB in each skill. This homework worked to assist and encourage parents to know and understand their children's attitudes, norms perceptions, self-efficacy and intentions, and in turn, encourage children to know and understand their parents' attitudes, norm perceptions, self-efficacy and intentions in child life skills development in while completing the work sheets. It was provided to the children every week after the life skills session and sent back to the researcher or research team the next Monday.

The instruments for data collection

Instruments for data collection included data from both parents and their children as described below.

3.3.7 The life skills questionnaire for school-age children

The life skills questionnaire for school-age children was employed to assess those ten life skills. Phuphaibul and team (2009) modified this life skills questionnaire originally developed by Tanaphat Kaewpatima (Kaewpatima, 2004; Phuphaibul, 2009).

Moreover, honesty, generosity, sufficiency, self-responsibility, and family-responsibility items were added and developed by the Human Potential Development in Thai People Research Team and the researcher (Phuphaibul, 2009). The derived questionnaire consisted of the original and additional items. The original and additional items were designed to reflect child life skills in the simulation scenarios that included substance abuse, violence, sexual-risk, relationships, media and values, and moral issues. The additional items were developed and scored similar to the pattern of the original questionnaire as described below.

A score of 1 referred to the inappropriate behaviors and negative effects to ourselves and others.

A score of 2 referred to the inappropriate behaviors that did not bring benefit to ourselves and others.

A score of 3 referred to the inappropriate behaviors that had benefit to ourselves only but did not benefit others.

A score of 4 referred to the appropriate behaviors and positive effects to ourselves and others.

Finally, the derived questionnaire consisted of 46 items. The total scores ranged from 46 to 184. As regards the interpretation of the total scores, higher scores indicated a higher level of life skills and vice versa. The reliability of the questionnaire was .87.

In addition, the demographic data of students were collected from of school registers. Some items, including birth order, family income, caregivers and who the students lived with were developed by the researcher.

3.3.8 The child life skills development questionnaire for parents (The parent questionnaire)

This questionnaire was developed by the researcher. It was based on the TPB focusing on salient beliefs, attitudes, subjective norms, parenting self-efficacy, intentions and parenting skills for child life skills development. It included a set of sociodemographic questions and five sets of questions to assess TPB variables as described below.

1.) Sociodemographic data: sociodemographic data consisted of the parents' background information about age, sex, educational level, marital status, occupation, family income, family type (nuclear or extended family), and number of children.

2.) The parents data was based on the TPB variables consisting of five parts with 66 items as described below.

Part I This part included 30 items for measuring parenting behaviors in child life skills development. The questionnaire contained three parenting behaviors such as (a) teaching including guiding, counseling, giving information and suggesting, (b) parental modeling, and (c) parental monitoring and supervision. Each item was developed and carefully defined parent participation in terms of its target, action, context and time for clearly measuring parenting behaviors. The parents rated their behaviors on a 5-point scale (definitely false (1), false (2), uncertain (3), true (4), definitely true (5)). The scores ranged from 30 to 150. Therefore, higher scores indicated more positive participation in child life skills development. Cronbach's alpha coefficient for the parenting skills scale in the present study was .94.

Part II This part included 12 items for measuring attitudes toward child life skills development. Attitude was defined as a parents' overall evaluation of participating in child life skills development by (a) teaching including teaching, counseling, giving information, and suggesting (b) parental modeling and (c) parental monitoring and supervision. The parents' overall evaluation of their participation was represented by such adjective scale pairs as valuable - worthless, harmful - beneficial, and was reflected in such quality scales as pleasant - unpleasant and good - bad scale. The parents rated their attitudes on a 5-point scale (1 to 5). The scores ranged from 12 to 60. Therefore, higher scores indicated a more positive attitude toward parent participation in child life skills development. Cronbach's alpha coefficient for parents' attitude scale in the present study was .84.

Part III This part included 6 items for directly measuring subjective norms of parents in child life skills development. The questionnaire evaluated parents' perceptions of important beliefs to perform or not perform about their participation in child life skills development by (a) teaching including teaching, counseling, giving information, and suggesting, (b) parental modeling, and (c) parental monitoring and supervision. The parents rated their subjective norms on a 5-point scale (strongly

disagree (1), disagree (2), uncertain (3), agree (4), and strongly agree (5)). The scores were ranged from 6 to 30. Therefore, higher scores indicated a more positive perception on the part of parents in those important beliefs in participation in child life skills development. Cronbach's alpha coefficient for subjective norms of parents for this sample was .84.

Part IV This part included 12 items for directly measuring parenting self-efficacy in child life skills development or perceived behavioral control (PBC) and their beliefs about the controllability in those three parenting skills. Using a 5-point scale, parents rated their perceptions in both self-efficacy (6 items) and their beliefs about the controllability (6 items), which assessed the three temperament dimensions (i.e., teach, model, monitor and supervise). The parenting self-efficacy and controllability scale were rated on a 5-point scale (strongly disagree (1), disagree (2), uncertain (3), agree (4), and strongly agree (5)). The scores ranged from 12 to 60. Therefore, higher scores indicated more parenting self-efficacy and controllability in participating in child life skills development. Cronbach's alpha coefficient for parenting self-efficacy scale in the present study was .83.

Part V This part included 6 items for measuring intention in child life skills development. The questionnaire focused on intention in participating in child life skills development including (a) teaching including teaching, counseling, giving information, and suggesting (b) parental modeling and (c) parental monitoring and supervision. Intention demonstrated those three behaviors in terms of “I want” and “I intend”. The parents rated their intentions on a 5-point scale (strongly disagree (1), disagree (2), uncertain (3), agree (4) and strongly agree (5)). The scores ranged from 6 to 30. Therefore, higher scores indicated a greater intention on child life skills development. Cronbach's alpha coefficient for the parents’ intention scale for this sample was .87.

The construct questionnaire items were sequentially administered. The participants were asked to answer the questions in relation to the TPB variables at the beginning. Then the sociodemographic questions were completed at the end. The behaviors or actions of parents were asked before the other variables because the participants were free and fresh from disturbed thinking by the TPB variables. After that, the other variables were sequentially asked in relation to the TPB.

3.4 Validity and reliability of measurement

3.4.1. Instrument validity

The programs' content and process were validated by 5 experts. Moreover, the life skills cartoon book's and parent guide book's contents were verified by 3 media experts as well. Both questionnaires were verified by 5 experts (Appendix B). The item-content validity index (I-CVI) of child life skills questionnaire ranged from .90-.96 and the scale-content validity index (S-CVI) values, using the averaging approach, was .94. The I-CVI of parent questionnaires was computed and ranged from .90-.96 and the S-CVI value, using the averaging approach, was .93. Their content validities were inspected and suggestions were made. Linguistic changes were made before being tested on 10 subjects (5 parents and 5 fifth graders) to assure their understanding and then were revised before implementation.

3.4.2. Instrument reliability

The questionnaires and scale test was tried out on 30 parents for parent questionnaires and 30 fifth graders for child life skills questionnaires. The reliability of their steadiness was tested using Cronbach's alpha coefficient. The child life skills questionnaire was evaluated on a measured scale and the 46-item scale had good internal consistency, Cronbach's alpha coefficient was .87. In addition, the parent questionnaires were also evaluated on a scale for internal consistency reliability and ranged from .83 -.94.

3.5 Data collection

The researcher contacted the selected school for collaboration and to build relationships. The researcher and research team met with the school administration committee, parent-teacher association, and school health team for providing information about intervention and data collection and facilitating the intervention in November 2010. After gaining permission from the school and approval from the Committee on Human Rights Related to Research Involving Human Subjects, Faculty

of Medicine Ramathibodi Hospital, Mahidol University, data collecting processes were employed from June to December 2011. Data were collected from all participants, including the fifth grade students and their parents as described below.

1. Before starting the training programs, two research assistants were prepared. To maximize the intervention's effectiveness, two research assistants working as trainers or coaches processed the intervention for one classroom (35-40 students). They were trained to give advice about the process and construction during the learning hour focused on participatory learning and group process, objectives, key words, major principles in each skill development based on the TPB and the material used in each session in the life skills training program. Moreover, they conducted a trial practice with the researcher and the trial classroom in another school before the real intervention in the life skills training program.

Regarding the data collection process, those research assistants were trained and advised in the objectives of data collection, steps on collecting data process, preparing the questionnaire and data collection process including answer sheets and spared questionnaires, room preparation, creating an appropriate atmosphere and test time (60 minutes).

2. Then baseline assessments were completed with both experimental and comparison groups before implementation using life skills questionnaire in the fifth graders and parent questionnaires for their parents. The fifth grader's data were collected in school during an examination in class, while parent's data were collected at home and sent with their child. In addition, histories of participants and their families were collected from the registers of the schools.

3. After classrooms were assigned to groups, the researcher cooperated with the school principal to send the letters to contact eligible parents. All participants were informed about the research objectives, research procedures, and data collections and agreed to participate. Then the participants signed the consent forms to participate in the intervention both parents and their child before the experiment.

4. Concerning the implementation process, the researcher made an appointment with the parents in the experimental group to participate in group training. The parent-training session was started at least one week before the child life skills development program started for preparing and developing parenting skills in

parents whereas the comparison group retained their usual daily lifestyle and child rearing as described below.

Experimental group: The fifth grade students in the experimental group were trained in each skill every week through the use of interactive teaching techniques and participatory learning. This program consisted of 10 sessions employing 60 minutes/skill/session on the Course Guide period or other available period until the program was completed. The sessions were sequentially organized and continued as the construct of the life skills development program. Moreover, the fifth grade students in the experimental group were given homework assignments (child-parent work sheets) to support the activities in the intervention and experience recording in the log book for qualitative data collection.

The parent training program was set for the parents in the experimental group and conducted in schools on Saturdays for every consecutive month until the program was completed. The program consisted of 3 sessions and 3 hours per session. Each session was organized before the child session started to prepare parents so they could coach and supervise their child. Furthermore, reinforcement between group sessions and follow-up telephone calls between each session were conducted for support and counseling of parenting skills and child life skills development between sessions.

Comparison group: The fifth grade students in the comparison group were trained with the same life skills training as those fifth grade students in the experimental group, including process, instruction media, and use of the same trainers, except for the homework assignments. The log book was still use to record the experiences recorded in this group, too. As regards to the threats to internal validity, child life skills training program conducted in both groups guaranteed no difference in class trainings as well. The classroom was randomly observed by the researcher on three occasions to assess adherence to the instructional content checklists delineating objectives, content covered, and learning processes used. Moreover, research assistants were blinded to the type of group in the classroom to control bias.

The parents in the comparison group did not receive training in the parent training program, whereas their children were trained in the life skills training program. They received only general information regarding child rearing. However, the parents in the comparison group were not asked to change their usual child rearing in any way.

5. Regarding the posttest data collection, children's data were collected in school during an examination in class, while parent's data were collected at home and sent with their child. Posttest data were collected at one week (immediately) after the completion of the intervention, and at the first and third months after the completion of the intervention.

The flow chart of data collection is shown in Figure 3.3.

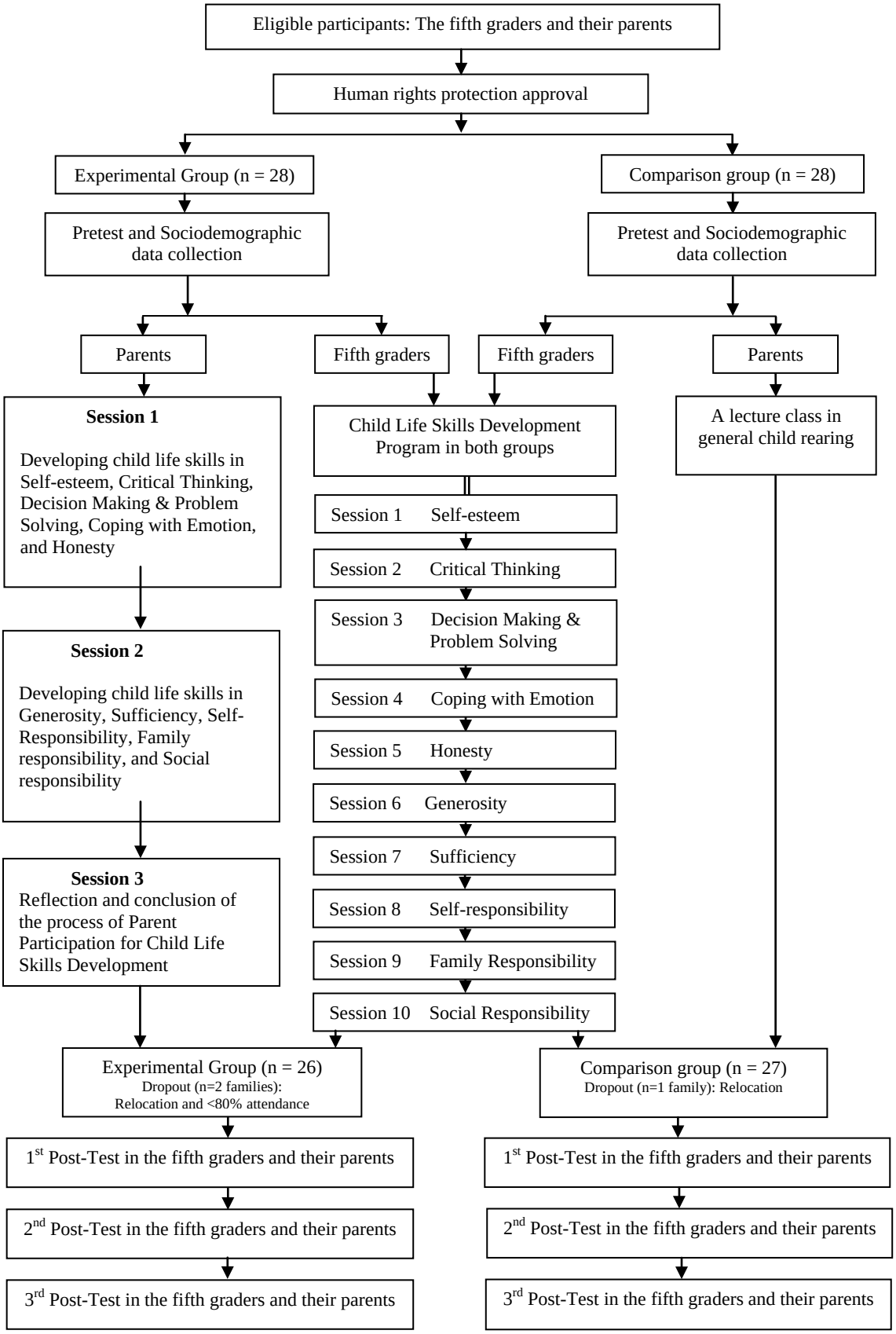


Figure 3.3: Flow chart of data collection

3.6 Controlling the threats to internal validity

The selection bias was controlled by statistically matching the fifth graders and their parents in both groups who were similar in child life skills, parents' attitude, subjective norms, parenting self-efficacy, intention, and parenting skills for child life skills development mean scores. These two groups were not significantly different in child life skills mean scores, and the mean scores of those parents' variables at baseline assessment. By doing this, positive changes among the experimental group, compared with the comparison group, could be obtained from the parent training program and not from natural positive changes to the mean. This had been done to avoid statistical regression (Burns & Grove, 2005).

Interaction in selection process was controlled by informing the parents that they were included in the research project. Each group did not meet to keep them from knowing to which group they belonged since they might be overwhelmed with determination or disappointment once they were excluded from the program (Burns & Grove, 2005). Instrumentation of this study was valid and was not changed throughout the entire study.

3.7 Protection of Human Rights

The study was approved by the Committee on Human Rights Related to Research Involving Human Subjects, Faculty of Medicine Ramathibodi Hospital, Mahidol University prior to commencing the study (see Appendix A). In addition, the school administration committee and parent-teacher association also granted approval to access potential participants. The nature of the study was explained to all participants by the researcher before obtaining signed consent forms. Throughout the study process, participants had the right to be protected from any possibility of discomfort, interference, or excessive burden. In addition, participants were assured that they could terminate their participation at any time or refuse to answer any specific question to which they objected. Whether or not they were willing to participate in the study, it was assured that their decision would not affect their child's education and other services in the school that the student should receive.

3.8 Data analysis

To ensure data completion and accuracy, screening data were conducted before they were analyzed. Analysis of data was carried out by PASW version 18 with the following statistics.

1.) To describe demographic data in percentage, mean, median (for income only) and standard deviation, descriptive statistics were employed.

2.) To examine the difference in demographic data, chi-square and independent t-tests were used.

3.) To compare pretest (baseline data) on the life skills, parenting skills, parents' attitude, subjective norms, parenting self-efficacy, and intention among groups, the independent t-test was used.

4.) To describe the effect of the intervention with individual differences across time or within subject differences (the baseline prior to the intervention, immediately after the intervention, and at the first and third month follow-up after the completion of the intervention), the repeated measures analysis of variance were used.

5.) To examine the real difference among groups or the adherent effect of the intervention after allowing for other differences among subjects, the analysis of covariance (ANCOVA) was used.

CHAPTER IV
RESULTS

This chapter presents the results obtained from the intervention in this study. The results have been separated into three sections. The first section demonstrates the descriptive statistics for demographic characteristics of the participants. The second section reveals the comparisons of the studied variables between the experimental and comparison groups at baseline. The last section presents the findings regarding hypotheses of the study. The statistical testing on the effect of the parent training program was performed by using the repeated measures analysis of variance and the analysis of covariance. The results are demonstrated below.

4.1 Demographic characteristics of the participants

Initially, 30 participants and their parents in the experimental group and 28 participants and their parents in the comparison group agreed to participate in the study. According to the inclusion criteria of the study, three participants in the experimental group dropped out of the study because their parents attended the program less than 80% (absent 2 sessions). Moreover, two participants in the experimental group were excluded during the study because one participant was diagnosed with Attention Deficit Hyperactivity Disorder (ADHD), and for the second, the mother was diagnosed with Delusion Disorder from her medical doctors. Additionally, two participants, one from the experimental group and the other from the comparison group changed schools after the first posttest was collected. Finally, 26 participants and their parents in the experimental group and 27 participants and their parents in the comparison group comprised the sample. The attrition rate was 13.33%.

All data was retained. However, many outlying values were detected and handled for accurate results. In this study, six cases of child and seven cases of parent data had extreme values. Because of these rare cases of participants for both children

and their parents, the winsorized mean and substitutive mean method were used (Munro, 2005, Tabachnick & Fidell, 2007). The highest and lowest extremes were replaced by the next-to-highest value and by the next-to-lowest value to bring the outlier close to the mean. Finally, 26 participants and their parents in the experimental group and 27 participants and their parents in the comparison group were included in the analysis.

The demographic characteristics of the participants were divided into two groups: children and their parents. Comparisons of the means of the demographic characteristics of the children and their parents of the experimental and comparison groups were conducted using independent t-test and chi-square test. The demographic characteristics of the children and their parents are presented as below.

4.1.1 Demographic characteristics of the fifth graders

The demographic characteristics of the fifth graders including sex, age, parents/guardians who lived with and were rearing their children, the number of siblings, child birth order, and family relationship perception were analyzed for the independent variables comparison. No significant difference was found in these variables ($p > .05$). The characteristics of the fifth graders in this study are summarized in Table 4.1.

Table 4.1 Demographic characteristics of fifth graders

Demographic	**Experimental Group** (n=26)	**Comparison group** (n=27)	**Total** (n=53)
	n (%)	**n** (%)	**n** (%)
Sex			
Boy	14 (53.8)	14 (51.9)	28 (52.8)
Girl	12 (46.2)	13 (48.1)	25 (47.2)
	$\chi^2 = 0.021$, df = 1, $p = 0.884$		

Table 4.1 Demographic characteristics of the fifth graders (cont.)

Demographic	**Experimental Group** (n=26)	**Comparison group** (n=27)	**Total** (n=53)
	n (%)	**n** (%)	**n** (%)
Age (years)			
10	13 (50.0)	8 (29.6)	21 (39.6)
11	13 (50.0)	19 (70.4)	32 (60.4)
Average age (*SD*)	10.50 (*0.510*)	10.37 (*0.492*)	10.43(*0.500*)
	t = 0.942, df = 51, p = 0.351		
Parents/Guardians (living with)			
Mother and father	16 (61.5)	17 (63.0)	33 (62.3)
Mother or father	2 (7.7)	2 (7.4)	4 (7.5)
Mother, father and other relatives	8 (30.8)	8 (29.6)	16 (30.2)
	χ^2 = 0.011, df = 2, p= 0.994		
Child Rearing			
Father	3 (11.5)	1 (3.7)	4 (7.5)
Mother	8 (30.9)	12 (44.4)	20 (37.8)
Mother and father	14 (53.8)	13 (48.2)	27 (50.9)
Grandparents	1 (3.8)	1 (3.7)	2 (3.8)
	χ^2 = 1.819, df = 3, p = 0.611		
Sibling			
None	6 (23.1)	7 (25.9)	13 (24.5)
Some	20 (76.9)	20 (74.1)	40 (75.5)
	χ^2 = 0.058, df = 1, p = 0.810		

Table 4.1 Demographic characteristics of the fifth graders (cont.)

Demographic	Experimental Group (n=26)	Comparison group (n=27)	Total (n=53)
	n (%)	**n** (%)	**n** (%)
Birth order			
First-born child	6 (23.1)	7 (25.9)	13 (24.5)
Middle-born child	2 (7.7)	4 (14.9)	6 (11.4)
Last-born child	12 (46.1)	9 (33.3)	21 (39.6)
Only child	6 (23.1)	7 (25.9)	13 (24.5)
	$\chi^2 = 1.231$, df = 3, $p = 0.746$		
Family relationship perception			
Good	9 (34.6)	12 (44.4)	21 (39.6)
Very Good	17 (65.4)	15 (55.6)	32 (60.4)
	$\chi^2 = 0.535$, df = 1, $p = 0.465$		

With regards to the demographic characteristics, the sex distribution of both groups was nearly the same (boys = 53.8%, girls = 46.2% in the experimental group and boys = 51.9%, girls = 48.1% in the comparison group). With regard to age of the fifth graders, almost all of the members of both groups had similar age (10-11 years old) with an average age of 10.43 years old (SD = 0.50). The fifth graders in both groups were similar in the characteristics of the family (guardian) and birth order. The majority of the fifth graders lived with their father and mother (61.5% in the experimental group and 63.0% in the comparison group) and the majority of them were reared by both their father and mother. The birth order of both groups was nearly the same. The majority of them in both groups were the last-born child in the family (46.1% in the experimental group and 33.3% in the comparison group). Most fifth graders in each group had siblings (76.9% in the experimental group and 74.1% in the comparison group). Furthermore, most of the fifth graders in both groups reported

their family relationships were very good (65.4% in the experimental group and 55.6% in the comparison group). In addition, the qualitative data presented that the fifth graders and their parents always shared activities such as eating dinner, watching TV, exercising and playing sports.

In sum, overall, the fifth graders in the experimental and the comparison groups were not significantly different ($\alpha > 0.05$).

4.1.2 Demographic characteristics of parents of the fifth graders

Similarly, the demographic characteristics of parents of the experimental and the comparison groups showed no differences in terms of sex, age, marital status, education, occupation, religion, family income, the number of children, and other family members ($\rho > .05$). The parents of both groups were similar in all characteristics (Table 4.2).

Table 4.2 Demographic characteristics of the parents of the fifth graders

Demographic	**Experimental Group** (n=26)	**Comparison group** (n=27)	**Total** (n=53)
	n (%)	**n** (%)	**n** (%)
Sex			
Male	4 (15.4)	7 (25.9)	11 (20.8)
Female	22 (84.6)	20 (74.1)	42 (79.2)
	$\chi^2 = 0.895$, df = 1, $p = 0.344$		
Age (years)			
30-40	9 (34.6)	12 (44.4)	21 (39.6)
41-50	17 (65.4)	15 (55.6)	32 (60.4)
Average age (*SD*)	42.31(*4.523*)	42.74(*3.879*)	42.53 (*4.172*)
	$t = 0.375$, df = 52, $p = 0.710$		

Table 4.2 Demographic characteristics of the parents of the fifth graders (cont.)

Demographic	Experimental Group (n=26)	Comparison group (n=27)	Total (n=53)
	n (%)	**n** (%)	**n** (%)
Marital Status			
Married	23 (88.5)	26 (96.3)	49 (92.5)
Divorced/Widowed	3 (11.5)	1 (3.7)	4 (7.5)
	$\chi^2 = 1.165$, df = 1, $p = 0.280$		
Education			
Below bachelor degree	7 (26.9)	10 (37.0)	17 (32.1)
Bachelor degree	17 (65.4)	14 (51.9)	31 (58.5)
Above bachelor degree	2 (7.7)	3 (11.1)	5 (9.4)
	$\chi^2 = 1.001$, df = 2, $p = 0.606$		
Occupation			
Government officer	14 (53.8)	11 (40.7)	25 (47.2)
Employee	10 (38.5)	10 (37.1)	20 (37.7)
Merchant	2 (7.7)	3 (11.1)	5 (9.4)
Housewife	0 (0.0)	3 (11.1)	3 (5.7)
	$\chi^2 = 3.542$, df = 3, $p = 0.315$		
Religion			
Buddhist	26 (100.0)	27 (100.0)	53 (100.0)

Table 4.2 Demographic characteristics of the parents of the fifth graders (cont.)

Demographic	Experimental Group (n=26)	Comparison group (n=27)	Total (n=53)
	n (%)	**n** (%)	**n** (%)
Family Income (bath/month)			
< 20,000	2 (7.7)	0 (0.0)	2 (3.8)
≥ 20,000 – 39,999	11 (42.3)	15 (55.6)	26 (49.1)
40,000 – 59,999	4 (15.4)	7 (25.9)	11 (20.8)
≥ 60,000	9 (34.6)	5 (18.5)	14 (26.4)
Mean (*SD*)	53,738.46 (*32543.424*)	48,925. 93 (*21494.053*)	51,286.79 (*27314.226*)
Median	45000.00	40000.00	40000.00
	t = 0.638, df = 43, p = 0.530		
The number of children			
1	6 (23.1)	8 (29.6)	14 (26.4)
2	17 (65.4)	13 (48.1)	30 (56.6)
3-4	3 (11.5)	6 (22.2)	9 (17.0)
Mean (*SD*)	1.88 (*0.588*)	1.93 (*0.730*)	1.91 (*0.658*)
	t = 0.226, df = 51, p = 0.822		
Other family members			
None	17 (65.4)	18 (66.7)	35 (66.0)
Some	9 (34.6)	9 (33.3)	18 (34.0)
	χ^2 = 0.010, df = 1, p = 0.922		

With regard to the parent's characteristics, most of the parents of the fifth graders were female (84.6% in the experimental group, 74.1% in the comparison group). In all, 23 mothers and 4 fathers participated in the experimental group and 21 mothers and 7 fathers participated in the comparison group. The findings were nearly the same. In addition, the mean ages of the two sample groups were similar, with a

mean of 42.31 (SD=4.523) in the experimental group and 42.74 (SD=3.879) in the comparison group. Almost all were married (88.5% in the experimental group and 96.3% in the comparison group). In addition, more than half of the parents in the experimental and comparison group had bachelor's degrees (65.4% and 51.9%, respectively). For occupation, most parents in each group worked as government officer (53.8% and 40.7%, respectively). All parents in both groups were Buddhist. Both groups presented nearly similar family income, approximately 40,000 baht per month (31 baht = 1 USD). The majority of the parents in the experimental and comparison groups had two children (65.4% and 48.1%, respectively) and about 34.6% in the experimental and 33.3% in the comparison groups had other family members living with them.

Briefly, overall characteristics of the parents of the fifth graders were not different in the experimental and comparison groups. No significant differences in all demographic variables were found using statistical testing ($\alpha > 0.05$).

4.2 Comparisons of the studied variables between groups at baseline

The mean scores of dependent variables in the experimental group and the comparison group were compared with independent t-test. At baseline assessment, child life skills scores of the experimental group were not significant difference from the comparison group ($\rho = 0.984$). Furthermore, the dependent variables from parents in both groups reported no statistical difference in parenting skills, parents' attitude, subjective norm, parenting self-efficacy, and intention for their child life skills development as well ($\rho = 0.251$, 0.802, 0.263, 0.809, and 0.614, respectively) (Table 4.3).

Table 4.3 Comparison of studied variables between experimental and comparison groups at baseline

Variables	**Experimental Group** (n=26)		**Comparison group** (n=27)		*t*	df	*p*-value
	Mean	***SD***	**Mean**	***SD***			
The fifth graders							
Life skills	157.654	*8.895*	157.704	*9.118*	-0.120	51	NS
Parents of the fifth graders							
Parenting skills	125.962	*14.212*	129.704	*10.748*	-1.162	51	NS
Attitude	55.808	*3.521*	56.037	*3.094*	-0.252	51	NS
Subjective norm	24.500	*1.985*	25.296	*3.010*	-1.132	51	NS
Self-efficacy	46.885	*5.659*	47.296	*6.638*	-0.243	51	NS
Intention	26.077	*2.756*	26.481	*3.030*	-0.508	51	NS

NS = $\rho > 0.05$

The dependent variables in the experimental and the comparison groups demonstrated no significant difference at baseline including life skills, parenting skills, parents' attitudes, subjective norms, parenting self-efficacy, and intention. Therefore, the analysis of covariance and the repeated measures analysis of variance was conducted to test the hypotheses of those variables in case the expected results might have differences or change over time.

4.3 Testing the effect of the parent training program

4.3.1 Preliminary Analysis: Statistical assumption testing

Before the data analyses were carried out, data were screened to ensure completion and accuracy. In addition, the assumptions for the repeated measures

analysis of variance and the analysis of covariance were examined for a powerful interpretation of the results as described below.

The normal distribution testing was considered using the Shapiro-Wilks statistic, Fisher's measures of skewness and kurtosis and approved by histogram, Q-Q plot, and box plot. In this study, handling outliers were organized. All dependent variables both in child and parent variables showed skewness and kurtosis values between +1.96 and –1.96, respectively and the Shapiro-Wilks statistic test presented the results as normal (p-value > .05).

In this study, the dependent variable scores at baseline and the dependent variable scores at the third month after the interventions showed an acceptable linear relationship. The linear relationship equaled 0.442 in life skills variable and 0.215 to 0.439 in parent variable. No significant interaction was found between type of training and dependent variables at baseline.

In addition, the tests of the assumption of homogeneity of variance for the equivalent variance in each group and the compound symmetry for the equivalent variance on all four of the measures described in two-variable groups were met (see Appendix G).

4.3.2 Main analysis: The effect of the parent training program

This part presents the effects of the parent training program on child life skills, parenting skills and parents' cognitions. Main analyses were interpreted as following the research hypotheses.

Hypothesis 1: The fifth graders in the experimental group have higher life skills scores than the fifth graders in the comparison group immediately, and at the first and third month after the intervention.

The effects of the parent training program on child life skills scores were analyzed to answer Hypothesis 1 using the analysis of covariance and the repeated measures analysis of variance. The test of effect of intervention between groups was measured on the adherent effect of the intervention at the third month after the interventions after controlling for the covariate (Munro, 2005). The test of the within-subjects effects was considered in both time and interaction effects for verifying those effects (Munro, 2005; Stevens, 2009). In addition, the comparison mean scores across

four time periods among groups and within each group were verified as the test of the effects of the intervention over time.

Effect on the life skills of the fifth graders

The analysis of covariance was used for testing the effect of the parent training program on the life skills scores of the fifth graders between groups after controlling for the covariate (life skill scores at baseline). Outcome measurement was used to investigate differences among group means at the third month after the completion of the intervention. The result showed no significant difference between groups (Table 4.4).

Table 4.4 Analyses of covariance for the corrected model of the life skills variable after removal of covariate influence

Source of Variation	SS	df	MS	F^C	*p*-value
Life skill scores					
Group	24.063	1	24.063	0.700	NS
Error	1719.342	50	34.387		

Note: ^{C} = Analysis of covariance, NS = $\rho > 0.05$

The results in Table 4.4 indicated that after controlling for the life skill scores at baseline, those two groups did not differ significantly in mean scores of life skills at the third month after the interventions ($p = 0.407$).

Moreover, to measure the effect of the parent training program on the life skills scores with individual differences across time or within-subjects differences, the repeated measures analysis of variance was used to support Hypothesis 1. The results indicated no significant difference in life skill scores over time between the two groups. The Huynh-Feldt epsilon reported a significant effect over time within group but no significant interaction effect was found on groups by time measurements (Table 4.5).

Table 4.5 Repeated measures on the mean scores of life skills within-subjects differences across time points of measurement

Source of Variation	SS	df	MS	F^r	*p*-value
Between subjects					
Groups	1.491	1	1.491	0.008	NS
Within group (error)	9434.830	51	184.997		
Within subjects					
Time	608.162	2.64 [a]	230.596	4.357	0.008
Group × Time	37.445	2.64 [a]	14.198	0.268	NS
Time × Within group (error)	7118.083	134.51 [a]	52.921		

Note: [r] = Two-way repeated measure ANOVA, NS = $p > 0.05$

[a] **=** Huynh-Feldt epsilon to adjust the degrees of freedom

The results revealed no significant difference in child life skill scores over time between the two groups ($p = 0.929$). No significant interaction was found between type of parent training intervention and child life skill scores over time ($p = 0.823$). Moreover, the results showed significant effects of time for at least one pair across time points of measurement**s** on the life skills mean scores ($p = 0.008$) indicating that the life skills of the experimental group were substantially increased from baseline to the follow-up after completing the intervention.

Analysis of changes, over time, of life skills scores in each group were analyzed using one-way repeated measure analysis of variance to clearly answer Hypothesis 1. The results showed significant increase over time in the experimental group but not in the comparison group (Table 4.6).

Table 4.6 Comparison of the mean scores of life skills at each point of measurement within the experimental and comparison groups

Group	Mean Scores				F^r	*p*-value
	Baseline	Posttest	1st month	3rd month		
Experimental group	157.65	156.89	160.62	161.96	3.005	0.036
Comparison group	157.70	157.89	160.22	160.63	1.464	NS

Note: ^{r} = One-way repeated measure ANOVA, NS = p >0.05

Posttest = data were collected immediately after the completion of the intervention.

1st month = data were collected at the first month after the completion of the intervention.

3rd month = data were collected at the third month after the completion of the intervention.

With regard to Table 4.6, significant differences were found over time in the experimental group. Those scores continuously increased at the first month after the interventions, while scores of the comparison group continuously increased immediately after the interventions but did not significantly increase over time. Obviously, the scores of the experimental group tended to be higher than the comparison group at the third month after the interventions as presented in Figure 4.1. This line graph represents changes at four time periods of means illustrating an improvement of life skills of the fifth graders. Moreover, the trend of scores of the experimental group was higher than scores of the comparison group at the last measurement.

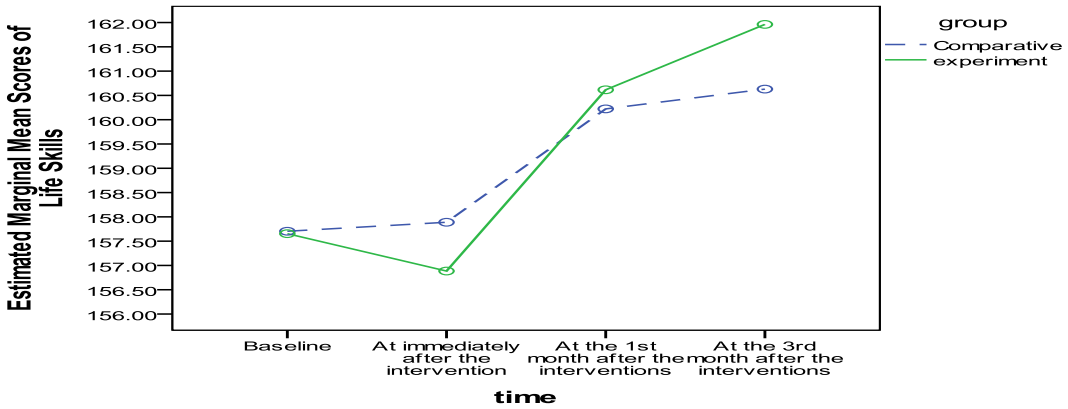


Figure 4.1: Mean scores of life skills by group over time

As regards to the qualitative data assessed from child log books, constant comparison from one case to another was performed. A final open-ended question provided data that brought deeper meaning to support those quantitative results. The participants in the experimental group recorded more appropriate activities and good behaviors than in the comparison group both in number of skills used and frequency used. Additionally, the participants in the experimental group recorded activities that identified the parent participation in performing their behaviors or activities, but not in the comparison group. Thus, it might be concluded that those fifth graders who were most often supported to develop their life skills by both the life skills training program and the parent training program tended to perform according to the topics they learnt.

Mostly the fifth graders handled their problems or other pressures with skills trained in the life skills training program, for example, critical thinking, understanding and sharing others with empathy and coping with emotion and decision-making in a productive manner. For example, one participant recorded her new role when she lived at home. An 11-year-old girl explained, “I think I should have family responsibility. I can help my mom; filling drinking water containers and keeping them in the refrigerator is my duty.” One 11-year-old boy remarked, “Today, I helped my father to clean our house after the flood crisis finished. I think it was the duty of all family members, and I should help him. He smiled to me and said, “Thank you, thus, I’m so proud.”

Another participant recorded his impression of himself. His coping with emotion was reflected by an 11-year-old girl that recounted, “I succeeded in controlling myself after I knew my sister snatched my Ben-10 toy. I think we can share toys and other possessions because I am proud to be her sister.”

Critical thinking and decision making & problem solving skills were used in a serious situation in one boy’s family. The 10-year-old boy remarked “I decided that I don’t want a new modern bicycle yet after my mother talked with me about its price and that I should set a priority for family-budget management because I have one already and it still works well.”

Honesty was illustrated by an 11-year-old boy that explained, “We had dinner in some restaurant this evening. After dinner finished, we were so surprised because we got more than the expected change back. I told my mom that I will return that money to the cashier. She hugged me and praised me that I’m an honest boy.”

In sum, no significant difference in life skill scores was found between the two groups, although the covariate was controlled. Moreover, although no significant interaction was found between type of parent group and child life skill scores over time, qualitative data demonstrated that using life skills or performing behavior based on life skills by participants in the experimental group were more frequent than those in participants in the comparison group. However, the result presented a significant effect over time within group. Significant differences were found in mean scores of life skills in the experimental group but not in the comparison group.

Effect on the parenting skills and parents' cognitions

Based on the TPB, it is believed that parents' attitudes, subjective norms, perceived behavioral control (or self-efficacy for this study), intentions, and behaviors are the determinative factors influencing their child's determining. The parent variables in this study were defined as parenting skills, attitudes, subjective norms, parenting self-efficacy and intentions for child life skills development. Therefore, each parent variable above was explored to answer Hypothesis 2 with the same statistical analysis as the former variables as described below.

Hypothesis 2: The parents of the fifth graders in the experimental group have higher parenting skills and cognition scores than the parents of the fifth graders in the comparison group immediately, and at the first and third month after the intervention.

Parenting skills

Similar to the former analyses, the analysis of covariance was used for testing the effect of the parent training program on parenting skills between groups again after controlling for the covariate (the parenting skills scores at baseline). Outcome measurement was employed to investigate differences in parenting skills scores among group means at the third month after the completion of the intervention to answer Hypothesis 2. The result showed a significant difference in the parenting skills scores between groups (Table 4.7).

Table 4.7 Analyses of covariance for the corrected model of parenting skills variable after removal of covariate influence

Source of Variation	SS	df	MS	F^c	*p*-value
Parenting skills scores					
Group	668.567	1	668.567	8.557	0.005
Error	3906.432	50	78.129		

Note: [c] = Analysis of covariance

The results in Table 4.7 indicated that after controlling for the parenting skills scores at baseline, those two groups differed significantly on mean scores of parenting skills at the third month after the interventions (p= 0. 005).

Moreover, to measure the effect of the parent training program on the parenting skills scores with individual differences across time, the repeated measures analysis of variance was used to further support Hypothesis 2 and the results presented below (Table 4.8).

Table 4.8 Repeated measures on the mean scores of parenting skills within-subjects differences across time points of measurement

Source of Variation	SS	df	MS	F^r	*p*-value
Between subjects					
Groups	9.057	1	9.057	0.028	NS
Within group (error)	16672.971	51	326.921		
Within subjects					
Time	1026.037	2.80[a]	366.733	3.944	0.011
Group × Time	804.528	2.80 [a]	287.559	3.093	0.032
Time × Within group (error)	13267.406	142.69 [a]	92.983		

Note: [r] = Two-way repeated measure ANOVA, NS = p >0.05

[a] = Huynh-Feldt epsilon to adjust the degrees of freedom

As regard to results, no significant difference was found in parenting skills mean scores over time between the two groups (p= 0.868). The interaction effect of type of parents group by time on parenting skills mean score changes was found (p= 0.032). Moreover, the results showed significant effects of time for at least one pair of four time points on the parenting skills mean scores (p= 0.011) indicating that the parenting skills of the experimental group were significantly increased from baseline to the follow-up after the completion of the intervention.

Analysis of changes, over time, of parenting skills scores in each group were analyzed using one-way repeated measure analysis of variance to clearly answer Hypothesis 2. The results showed significant increased over time in the experimental group but not in the comparison group (Table 4.9).

Table 4.9 Comparison of the mean scores of parenting skills at each point of measurement in the experimental and comparison groups

Group	Mean Scores				F^r	*p*-value
	Baseline	Posttest	1st month	3rd month		
Experimental group	125.692	130.577	132.962	136.423	5.782	0.001
Comparison group	129.704	131.370	133.185	129.741	0.895	NS

Note: ^{r} = One-way repeated measure ANOVA, NS = p >0.05

Posttest = data were collected immediately after the completion of the intervention.

1st month = data were collected at the first month after the completion of the intervention.

3rd month = data were collected at the third month after the completion of the intervention.

In regards to Table 4.9, the findings showed the mean scores of parenting skills of the experimental group continuously increased over time after the intervention while the comparison group showed only slightly increased score at first and decreased score at the last time of measurement. In addition, the mean scores of parenting skills of the experimental group showed an increasing trend at the later times and presented higher scores than the comparison group at the third month after the

interventions. On the other hand, the mean scores of parenting skills of the comparison group showed a decreasing trend at the later times.

As presented in Figure 4.2, the line graph representing changes at four time periods of means illustrated the improvement of parenting skills scores of the experimental group. In particular, it showed higher scores than the comparison group at the third month after the interventions. The graph line of the experimental group presented an increasing trend. Moreover, the comparison group displayed the quadratic trend that slightly increased at first and then dropped sharply over later.

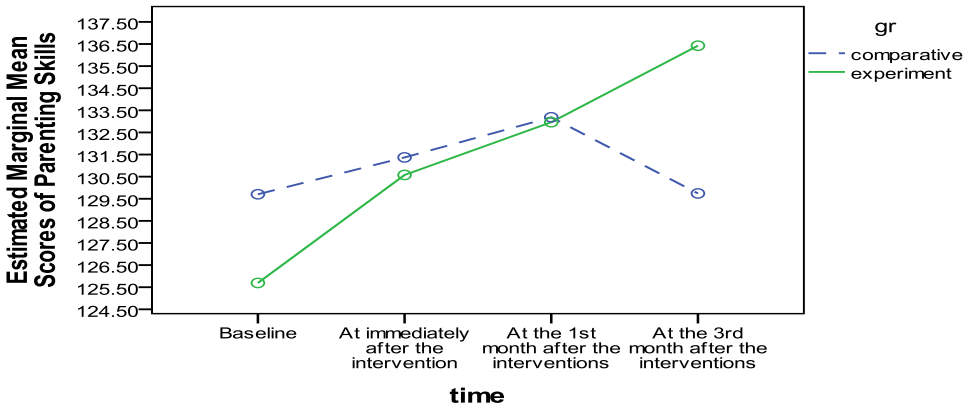


Figure 4.2: Mean scores of parenting skills by group over time

Moreover, the parents recorded in the log book that they could apply the knowledge and practice from parent training in their daily life, which benefit themselves in using appropriate parenting skills to develop their child life skills. The most persistent theme in the parents' log book was teaching, rewarding, modeling, monitoring and supervision that supported a preliminary hypothesis about a possible mechanism of change in parenting skills. Example statements translated from their original words follow.

One mother related her own techniques for developing her daughter's self-responsibility by monitoring and supervision and rewarding by praise. This was reflected in the parents' log book: "I told my daughter to wash her sport shoes on her weekend. We discussed a lot about roles of family members and self-responsibility. And I did not forget to praise her after she finished her work."

Good modeling was described by one mother. She reflected this skill in some situations in her family. "This weekend, our children were encouraged to plant

some vegetables by their father. Our children asked their father and me why we had to do that. My husband and I explained that it's so safe and we can save finances by eating vegetables that we planted them by ourselves. They understood and appreciated this activity. We want to be a sufficient family"

Most parents used teaching and suggesting when they needed to develop their child's life skills or had the opportunities. They reflected on the ways to apply these skills in families. For example, one remarked that "My daughter wanted me to buy a new cell phone for her because her friend showed off a new "BlackBerry" and she wanted the new one. I told my daughter "It's so expensive and not necessary for her because she's so young and I did not have money enough to buy a BlackBerry. If she wanted to call me, she could use the public telephone in school. She understood and I admired her that she did not over use money." Another recounted that "I stopped the fighting between my two sons and taught them to harmonize in the family and between brothers. I suggested them to be empathetic when we were persecuted or bullied and the older brother should be a good model for his younger brother."

Overall, the parents in the experimental group had higher parenting skills scores than the parents in the comparison group at the third month after the interventions but no significant difference was found in parenting skills scores over time between the two parent groups. A significant interaction was found between type of parent group and parenting skills scores over time. Furthermore, significant differences were found in parenting skills scores over time in the experimental group but not in the comparison group.

Parent's attitude

According to the results of testing the effect of the parent training program on the parents' attitudes between groups, the outcome measurement was investigated for differences in the parents' attitudes scores among group means at the third month after the completion of the intervention to answer Hypothesis 2 using ANCOVA (after controlling for the covariate). The result showed no significant difference between groups (Table 4.10).

Table 4.10 Analyses of covariance for the corrected model of the parents' attitudes variable after removal of covariate influence

Source of Variation	SS	df	MS	F^c	*p*-value
Parents' attitude scores					
Group	1.607	1	1.607	0.153	NS
Error	524.280	50	10.486		

Note: ^{c} = Analysis of covariance, NS = p >0.05

With regards to the result, after controlling for the parents' attitude scores at baseline, those two groups did not differ significantly in mean scores of parents' attitudes at the third month after the interventions (p= 0. 697).

In addition, to measure the effect of the parent training program on the parent's attitudes scores with individual differences across time, the repeated measures analysis of variance was used to answer Hypothesis 2. The results indicated no significant difference in parent's attitude scores over time between the two parent groups. The Huynh-Feldt epsilon reported a significant effect over time within group but no significant interaction effect was found on groups by time measurements (Table 4.11).

Table 4.11 Repeated measures on the mean scores of parents' attitudes within-subjects differences across time points of measurement

Source of Variation	SS	df	MS	F^r	*p*-value
Between subjects					
Groups	9.968	1	9.057	0.404	NS
Within group (error)	1257.513	51	24.657		
Within subjects					
Time	65.049	3	21.683	3.297	0.022
Group × Time	10.558	3	3.519	0.535	NS
Time × Within group (error)	1006.074	153	6.576		

Note: ^{r} = Two-way repeated measure ANOVA, NS = p >0.05

With regards to the results, no significant difference were in parents' attitude scores over time between the two parent groups (p= 0.528). No significant interaction between types of parent group and parents' attitudes over time (p= 0.659). Moreover, the results showed that significant effects of time for at least one pair of four time points on the parents' attitude mean scores (p= 0.022) indicating that the parents' attitudes of the experimental group were substantially increased from baseline to the follow-up after the completion of the intervention.

Analysis of changes over time, of parents' attitudes scores in each group were analyzed using one-way repeated measure analysis of variance to clearly answer Hypothesis 2. As shown in Table 4.12, the scores of both groups did not significantly increase over time.

Table 4.12 Comparison of the mean scores of parents' attitude at each point of measurement in the experimental and comparison groups

Group	Mean Scores				F^r	*p*-value
	Baseline	Posttest	1st month	3rd month		
Experimental group	55.808	56.731	56.692	57.615	1.932	NS
Comparison group	56.037	55.704	56.185	57.185	0.696	NS

Note: ^{r} = One-way repeated measure ANOVA, NS = p >0.05
Posttest = data were collected immediately after the completion of the intervention.
1st month = data were collected at the 1st month after the completion of the intervention.
3rd month = data were collected at the 3rd month after the completion of the intervention.

With regards to Table 4.12, the mean scores of parents' attitudes of both groups continuously increased after completing the interventions, but no significant difference was found in mean scores of parents' attitudes in both groups at all time assessments. The experimental group showed higher scores than the comparison group after completing the interventions. As shown in Figure 4.3, the line graph represents the higher scores in the experimental group after completing the intervention.

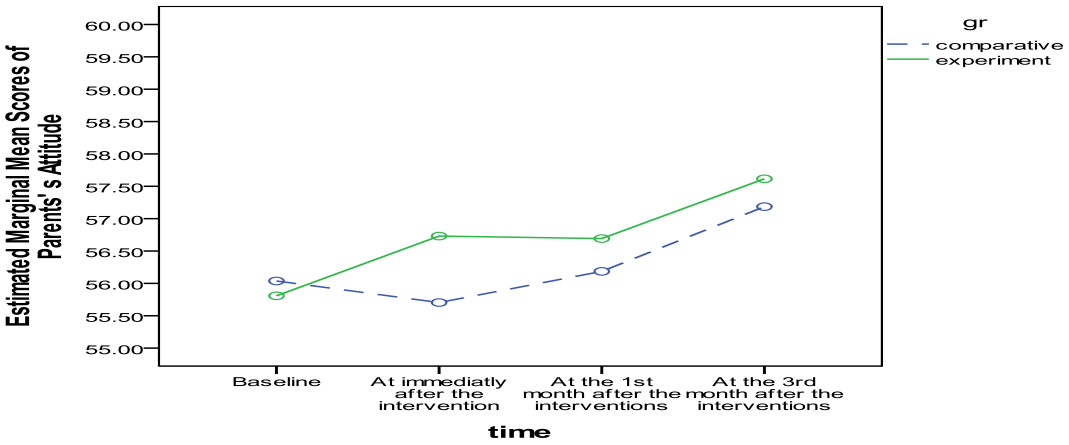


Figure 4.3: Mean scores of parent's attitudes by group over time

Overall, no significant difference was found in parent's attitudes scores over time between those two groups. Although the covariate was controlled, those two groups did not still differ significantly in mean scores of parent's attitudes at the third month after the interventions. However, the parent's attitudes scores differed significantly at each of the times. No significant interaction was found between type of parent groups and parent's attitudes scores over time. Moreover, no significant differences were found in mean scores of parent's attitudes in both groups.

Subjective norms

According to the results of testing the effect of the parent training program on the parents' subjective norms between groups, the outcome measurement was investigated for differences in the subjective norms scores among group means at the third month after the completion of the intervention to answer Hypothesis 2 using ANCOVA (after controlling for the covariate). The result showed no significant difference between groups (Table 4.13).

Table 4.13 Analyses of covariance for the corrected model of the subjective norms variable after removal of covariate influence

Source of Variation	SS	df	MS	F^c	*p*-value
Subjective norms scores					
Group	0.030	1	0.030	0.014	NS
Error	105.800	50	2.116		

Note: ^{c} = Analysis of covariance, NS= ρ >0.05

The results in Table 4.13 indicated that after controlling for the subjective norms scores at baseline, those two groups did not differ significantly in mean scores of subjective norms at the third month after the interventions (p=0.905).

Moreover, to measure the effect of the parent training program on the subjective norms scores with individual differences across time or within-subjects differences, the repeated measures analysis of variance was used to answer Hypothesis 2. The results indicated no significant difference in subjective norm scores over time between the two groups. The Huynh-Feldt epsilon reported no significant effect over time within group and no significant interaction effect on groups by time measurements was found (Table 4.14).

Table 4.14 Repeated measures on the mean scores of subjective norms within-subjects differences across time points of measurement

Source of Variation	SS	df	MS	F^r	*p*-value
Between subjects					
Groups	0.000	1	0.000	0.000	NS
Within group (error)	544.323	51	10.673		
Within subjects					
Time	23.690	3	14.321	2.555	NS
Group × Time	23.576	3	10.846	1.935	NS
Time × Within group (error)	660.884	153	5.606		

Note: ^{r} = Two-way repeated measure ANOVA, NS = p >0.05

As regards to the results, the results revealed that the mean scores of subjective norms of the experimental group were not significantly higher than those of the comparison group (p= 0.997). The interaction effect of type of parent group by times on subjective norms score changes was not found (p= 0.132). Moreover, the results showed that there were no significant effects of time on the subjective norms mean scores over time (p= 0.063).

Analysis of changes, over time, of subjective norms scores in each group were analyzed using one-way repeated measure analysis of variance to clearly answer Hypothesis 2. As shown in Table 4.15, the scores of both groups did not significantly increase over time.

Table 4.15 Comparisons of the mean scores of subjective norms at each point of measurement in the experimental and comparison groups

Group	Mean Scores				F^r	*p*-value
	Baseline	Posttest	1st month	3rd month		
Experimental group	24.500	25.077	25.154	24.423	1.390	NS
Comparison group	25.296	24.037	25.407	24.407	2.070	NS

Note: ^{r} = One-way repeated measure ANOVA, NS = p >0.05

Posttest = data were collected immediately after the completion of the intervention.

1st month = data were collected at the 1st month after the completion of the intervention.

3rd month = data were collected at the 3rd month after the completion of the intervention.

The results in Table 4.15 show the mean scores of subjective norms of the experimental group representing the higher scores only immediately after the intervention. However, the overall mean scores of subjective norms still continuously presented at high score levels in both groups across those three times of assessment after the interventions (more than 24 in 30) and showed a decreasing trend after the third month after the interventions. As shown in Figure 4.4, the line graph represents the higher scores in the experimental group after completing the intervention in early and both lines show a sharp decline after the first month after the interventions.

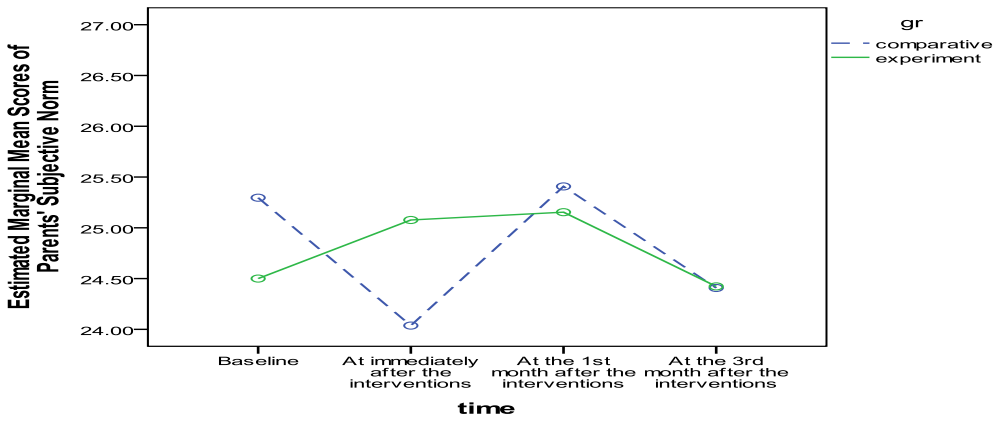


Figure 4.4: Mean scores of parents' subjective norms by group over time

In sum, no significant difference was found in parents' subjective norms scores over time between those two groups. Although the covariate was controlled, those two groups did not differ significantly in mean scores of subjective norms at the third month after the interventions. No significant interaction was found between type of parent group and subjective norms scores over time. Moreover, no significant differences were found in mean scores of subjective norms in both groups.

Parenting self-efficacy

According to the results of testing the effect of the parent training program on parenting self-efficacy between groups, the outcome measurement was investigated for differences in parenting self-efficacy scores among group means again at the third month after the completion of the intervention to answer Hypothesis 2 using ANCOVA. The result showed a significantly different main effect between groups (Table 4.16).

Table 4.16 Analyses of covariance for the corrected model of the parenting self-efficacy variable after removal of covariate influence

Source of Variation	SS	df	MS	F^c	*p*-value
Parenting self-efficacy scores					
Group	112.584	1	112.584	4.977	0.030
Error	1131.069	50	22.621		

Note: ^{c} = Analysis of covariance

With regards to Table 4.16, after controlling for the parenting self-efficacy at baseline, those two groups differed significantly on mean scores of parenting self-efficacy at the third month after the interventions.

Furthermore, to measure the effect of the parent training program on the parenting self-efficacy scores with individual differences across time, the repeated measures analysis of variance was used to support Hypothesis 2. The results indicated no significant difference in parenting self-efficacy scores over time between the two parent groups. The Huynh-Feldt epsilon reported no significant effect over time within group and no significant interaction effect on groups by time was found (Table 4.17).

Table 4.17 Repeated measures on the mean scores of parenting self-efficacy within-subjects differences across time points of measurement

Source of Variation	SS	df	MS	F^r	*p*-value
Between subjects					
Groups	121.026	1	121.026	1.409	NS
Within group (error)	4382.172	51	85.925		
Within subjects					
Time	26.600	3	8.867	0.445	NS
Group × Time	98.411	3	32.804	1.645	NS
Time × Within group (error)	3050.768	153	19.940		

Note: ^{r} = Two-way repeated measure ANOVA, NS = $p > 0.05$

The results revealed that the mean scores of parenting self-efficacy of the experimental group were not significantly higher than those of the comparison group (p= 0.241). No interaction effect of type of parent group by times on parenting self-efficacy score changes was found (p= 0.181). Moreover, the results showed no significant effects of time on the parenting self-efficacy mean scores (p= 0.721).

Changes, over time of parenting self-efficacy scores in each group were analyzed using one-way repeated measure analysis of variance to clearly answer Hypothesis 2. As shown in Table 4.18, the scores of parenting self-efficacy in both groups did not significantly increase over time.

Table 4.18 Comparisons of the mean scores of parenting self-efficacy at each point of measurement in the experimental and comparison groups

Group	Mean Scores				F^r	*p*-value
	Baseline	Posttest	1st month	3rd month		
Experimental group	46.885	47.269	48.962	49.115	1.521	NS
Comparison group	47.296	46.407	46.148	46.333	0.403	NS

Note: ^{r} = One-way repeated measure ANOVA, NS = p >0.05

Posttest = data were collected immediately after the completion of the intervention.

1st month = data were collected at the 1st month after the completion of the intervention.

3rd month = data were collected at the 3rd month after the completion of the intervention.

Although the scores of parenting self-efficacy in both groups were not significantly different over time, the parenting self-efficacy scores of the experimental group shown in Table 4.18 continuously increased after completing the interventions and were higher than those of the comparison group after completing the interventions across three time measurements. Moreover, the mean scores of parenting self-efficacy of the experimental group showed an increasing trended over time while scores of the comparison group still presented flat tendency at the later time. As shown in Figure 4.5, the line graph representing the comparison group slowly over decreased over time, while the experimental group demonstrated a slight increase.

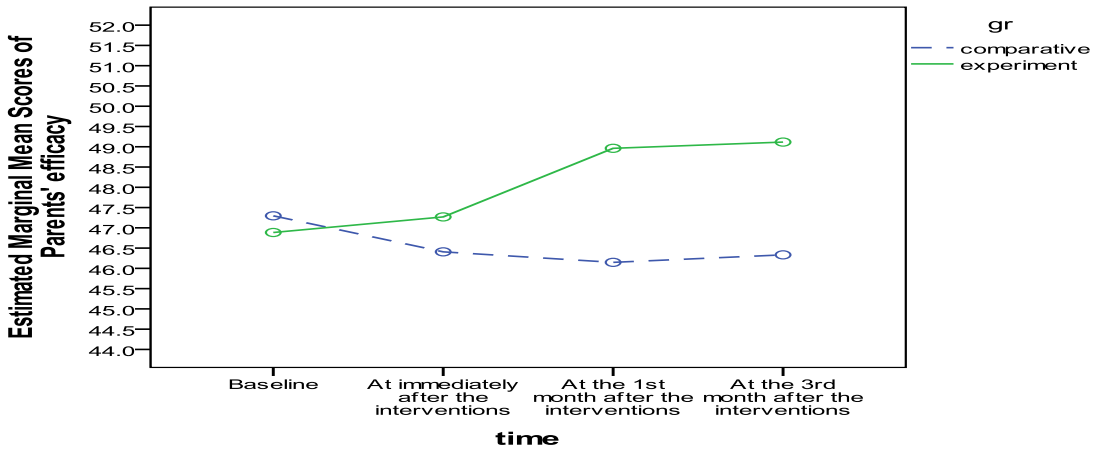


Figure 4.5: Mean scores of parenting self-efficacy by group over time

Overall, the parents in the experimental group had higher parenting self-efficacy scores than the parents in the comparison group at the third month after the interventions. However, no significant difference was found in parenting self-efficacy scores over time between groups. Moreover, no significant interaction between type of parent groups and parenting self-efficacy scores was found over time.

Parent's intention

According to the results of testing the effect of the parent training program on the parent's intention between groups, the outcome measurement was investigated for differences in parent's intention scores among group means again at the third month after the completion of the intervention to answer Hypothesis 2 using ANCOVA. The result showed a significant difference in the main effect between groups (Table 4.19).

Table 4.19 Analyses of covariance for the corrected model of the parent's intention variable after removal of covariate influence

Source of Variation	SS	df	MS	F^c	*p*-value
Parent's intention scores					
Group	28.841	1	28.841	4.912	0.031
Error	293.587	50	5.872		

Note: ^{c} = Analysis of covariance

With regards to the results in Table 4.19, after controlling for the parent's intention scores at baseline, those two groups differed significantly on mean scores of parent's intention at the third month after the interventions.

In addition, to measure the effect of the parent training program on the parent's intention scores with individual differences across time, the repeated measures analysis of variance was used to support Hypothesis 2. The results indicated no significant difference in parent's intention scores over time between the two parent groups. The Huynh-Feldt epsilon reported a significant effect over time within group but no significant interaction effect on groups by time measurements was found (Table 4.20).

Table 4.20 Repeated measures on the mean scores of parent's intention within-subjects differences across time points of measurement

Source of Variation	SS	df	MS	F^r	*p*-value
Between subjects					
Groups	51.297	1	51.297	3.820	NS
Within group (error)	684.779	51	13.427		
Within subjects					
Time	93.883	3	3.174	5.570	0.001
Group × Time	40.921	3	20.620	2.428	NS
Time × Within group (error)	859.607	153	6.084		

Note: ^{r} = Two-way repeated measure ANOVA, NS = $p > 0.05$

With regards to the results, the parent's intention scores of the experimental group were not significantly higher than those of the comparison group ($p = 0.056$). No significant interaction was found between type of parent training intervention and parent's intention over time ($p = 0.068$). Moreover, the results showed significant effects of time for at least one pair of four time points on the parent's intention mean scores ($p = 0.001$), indicating that the parent's intention scores of the experimental group were significantly increased from baseline to the follow-up after the completion of the intervention.

Analysis of changes, over time, of parent's intention scores in each group, were analyzed using one-way repeated measure analysis of variance to clearly answer Hypothesis 2. The results showed a significant increased over time in the experimental group but not in the comparison group (Table 4.21).

Table 4.21 Comparisons of the mean scores of parent's intention at each point of measurement in the experimental and comparison groups

Group	Mean Scores				F^r	*p*-value
	Baseline	Posttest	1st month	3rd month		
Experimental group	26.077	27.923	27.423	28.846	9.290	0.000
Comparison group	26.481	25.963	26.481	27.407	1.314	NS

Note: ^{r} = One-way repeated measure ANOVA, NS = $p > 0.05$

Posttest = data were collected immediately after the completion of the intervention.

1st month = data were collected at the 1st month after the completion of the intervention.

3rd month = data were collected at the 3rd month after the completion of the intervention.

With regards to Table 4.21, the mean scores of parent's intention of the experimental group significantly increased over time and were higher than those of the comparison group after completing the interventions. However, the mean scores of parent's intention showed an increasing trended over time in both groups but scores of the comparison group were lower than those of the experimental group after completing the interventions. As shown in Figure 4.6, the line graph representing changes at four time periods of means illustrated that the parent's intention in both group improved. The line of the experimental group showed higher scores than the dotted line of the comparison group over time.

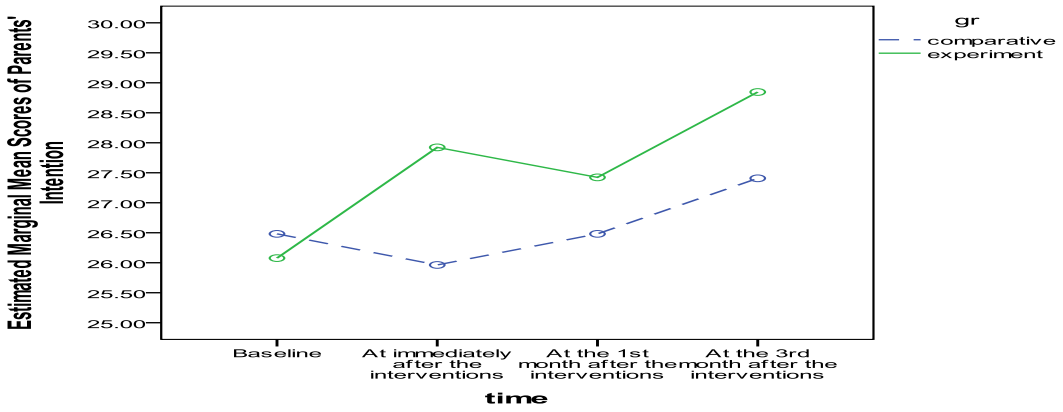


Figure 4.6: Mean scores of parent's intention by group over time

In sum, no significant difference was found in parent's intention scores over time between the two parent groups, but after controlling the covariate, the parents in the experimental group had higher parent's intention scores than the parents in the comparison group at the third month after the interventions. However, no significant interaction was found between type of parent groups and parent's intention scores over time. Moreover, significant differences were found in mean scores of life skills in the experimental group but no significant differences were found in the comparison group.

To further support Hypothesis 2, the qualitative data assessed from parents' log books demonstrated positive attitude, self-efficacy, and intention to use parenting skills and develop their child's life skills. The most persistent themes in the parents' log book related to the parents' notion that had attitude and intention to support their child's life skills development, i.e., "I plan", "I intend", "I do", and "I admire". For example, some parents reported in their own words the following comments.

Most parents expressed their need with respect to develop and improve their child's life skills. One remarked that "I train my son for self-responsibility as my own duty. I told my son to finish his homework at least on time and I praised or rewarded him every time he did." Some mothers said that "I told my son that I had to set a priority for finances because I did not have money enough to buy many things he needed in this month. I asked him to choose which one was more necessary for him and he chose a clarinet for learning during the music hour instead of a new bicycle

because his old bicycle was still working well. I think that my son's decision is the one for good practice."

As a result of parents' intention, some mothers recounted that "Today, I plan to take action as a trainer of my son in self-responsibility. I ask him to help me to clean his room. I think my son should clean his room by himself, he's 10 years old. I tell him that he can help me to handle some workhouse and it will save me time."

Many parents affirmed their positive attitude toward child life skills development. One mother remarked that "I admired my son after he determined to give up his plan to buy "Yu gi Cards" because he had already a lot of cards." Other parents recorded stories about vegetable cultivation for family consumption as above representing their positive attitude and intention for developing sufficiency in their children.

Overall, the qualitative data demonstrated that the parents had attitude and intention to use parenting skills and develop their child's life skills. They had the skills necessary to engage in the parenting process for their child's life skills development effectively. Mostly, parents frequently talked and discussed an increased focus on valuing children's life skills developing process versus outcomes, praised or rewarded their child after performing positive behaviors, performed positive role models, encouraged the children to handle their own problems, and learnt to be patient with their children. These may represent a potential mechanism of change underlying the improvements observed in overall behaviors based on life skills of interest among the children and parents participating in the intervention.

On the other hand, no data demonstrating parent participation for child development was observed in the child log book from the fifth graders in the comparison group regarding praising, giving recognition or rewarding.

4.3.3 Additional analyses on effect size of the study

Effect size is a statistical analyses used to investigate the magnitude of the main effects in the analysis of variance (Cohen, 1988). In this study, the standardized difference between means was calculated to determine the effect size of treatment or the magnitude of the treatment effect. The effect size of the treatment effect in this study was calculated based on the outcome measurements at the third month after the interventions by the following formula (Cohen, 1988):

$$\text{Effect Size} = \frac{m1 - m2}{\sigma}$$

$$= \frac{\text{Experimental group mean – Comparison group mean}}{\text{Comparison group standard deviation}}$$

Cohen (1988) defined a small effect size as 0.20, a moderate effect size as 0.50, and large effect size as 0.80. The effect sizes of the outcome measurements at the third month after the interventions are presented below.

Table 4.22 Effect sizes of the outcome measurements in the studied variable after completing the study

Variables	**Experimental Group Mean (SD)**	**Comparison group Mean (SD)**	**Effect sizes**
Child life skills	161.961(*7.263*)	160.629 (*5.631*)	0.24
Parenting skills	136.423 (*11.413*)	129.741 (*5.488*)	1.22
Parent's attitude	57.615 (*2.228*)	57.185 (*2.587*)	0.17
Parent's subjective norms	24.423 (*1.747*)	24.407 (*1.074*)	0.02
Parenting self-efficacy	49.115 (*5.881*)	46.333 (*4.279*)	0.65
Parent's intention	28.846 (*1.347*)	27.407 (*3.116*)	0.46

The results revealed that the effect size at the third month after the interventions was large for parenting skills (1.22), medium for child life skills, parenting self-efficacy, and parent's intention (0.24, 0.65, and 0.46, respectively), and small for parent's attitude and parent's subjective norm (0.17 and 0.02, respectively). Obviously, the effect size for parental outcomes appeared larger than the effect size for child outcomes.

CHAPTER V
DISCUSSION

This study created the life skills development program using life skills training in school-age children combined with parent training for life skills development in their children to test whether the parent training program can enhance life skills scores in children, parenting skills and cognitive scores in parents. The research findings are discussed in two parts. One is the characteristics of the participants and the other is the hypotheses testing. Additionally, other discussions on research methods including the theoretical aspects, instrumental issues, data analysis procedures, and limitations of the study are also presented.

5.1 Characteristics of the participants

Participants of this study comprised fifth graders and their parents. The demographic characteristics of the children of the experimental group and the comparison group were no different in terms of sex and age. The boy and girl distribution of both groups was nearly the same. That was congruent with the ratio between boys and girls in other studies in Thailand (Chaisri, 2007; Klatthong, 2006; Punyapet, 2005).

Moreover, the fifth graders in both groups had similar characteristics of family and birth order that almost all were reared and lived with father and mother. The majority in both groups comprised the last-born child in the family and had siblings. Because of specific differences in child rearing, children who were the youngest of the family tended to be spoiled and aggressive more than those who were middle and the oldest of the family (Vongthumma, 2000). The difference in those issues might have affected the outcome. In this study, the fifth graders were similar in birth order in both groups and no differences were observed in child rearing as a

general Thai family in an urban area (Isaranurug & Suttisukhon, 2007). Present family relationship was also not different between both groups. Thai families with good relationship tend to bring up children using love and support type, rather than strict control and psychological punishment and using reason rather than emotion (Isaranurug & Suttisukhon, 2007). In this study, more than 60% in both groups perceived their family relationships were very good and perceived good relationships in family for the rest. Thus, both students in the experimental group and the comparison group probably performed similar demographic characteristics.

Regarding the parent's characteristics, most participants in each group were female and no differences were found in terms of parents' sex. This was congruent with the general norm in Thai family context, where most participation in child rearing and training is by the mother (Hongpan, 2000; Chaisri, 2007). In addition, the mean ages of the two groups were similar. Almost all parents were 41-50 years old (average 42 years old). Almost all of them were married. In addition, all parents in both groups were Buddhists, which is the major religion in Thailand.

The parents' characteristics included being in the middle class, earning their living as government officer, and having earned bachelor's degree, reflecting a secure and stable life and assuming recognized thought. This is congruent with previous research. Hypothetically, the socioeconomic disadvantage seemed to emerge as an important predictor for children and parents' outcome criteria, i.e., the more disadvantaged the family, the less likely it was to benefit from parent training (Borkowski et al., 2002; Kumpfer & Alvarado, 1998). Moreover, many studies found that middle class families tended to participate at a higher rate than the others (Fongkaew, 2006; Heinrichs et al., 2005; Spoth et al., 2001; Thanisawanyangura, 2005). In conclusion, overall characteristics of the parents were not different.

5.2 Effect of the parent training program

The effects of the parent training program in this study were discussed in two parts that congruent with the research hypotheses. One was the effect of the parent training program on child life skills development. The other was the effect on

parenting skills and parents' cognitions, including attitudes, subjective norms, parenting self-efficacy, and intention for their child's life skills development.

5.2.1 Effect on the life skills of the fifth graders

By statistical analysis, no significant difference was found in life skills scores between groups. This finding did not support research Hypothesis 1. However, though the influence may not be strong enough to raise the differences of life skills mean score of the experimental and the comparison groups, medium effect sizes for child life skills (ES=0.24) were detected. In addition, the life skills mean scores of the experimental group presented a continuously increasing score higher than that of the comparison group after completing the interventions. This might be the predicted direction for continual better effect of the parent training program on child life skills scores in the experimental group. Moreover, this was supported by changes and child performances recorded in the child log book. The qualitative data presented the sequence changes as improved mechanisms in the fifth graders of the experimental group. The fifth graders of the comparison group recorded their appropriate behaviors less frequently than those in the experimental group. Obviously, the fifth graders in both groups presented high life skills scores before they participated in the intervention (more than 150 from 184 at baseline). Thus, it might not be easy to raise the life skills scores after completing the interventions.

Four possible explanations for the lack of a significant effect are as follows. First, it is possible that this intervention was implemented on ten life skills during too short a period. The parent training program was implemented in two months for three sessions, while the life skills training program was provided to children at the same time (one skill per week). Therefore, both parents and children had little opportunity to apply those ten skills. Intervention effects might have been constrained by less than optimal participation in the parent training and child life skills development interventions (Kaminski et al., 2008). The intervention did not have strong effects on the children's life skills. With respect to the relative lack of effect on child life skills, it may have been that the parent training components targeting life skills and behaviors that were trained by parents did not bring about sufficient change in the various contexts in school to establish and maintain changes in social behavior.

Therefore, the children may not have developed their skills and perceptions, particularly sense of worth and confidence before and after intervention; thus, making it more difficult to detect significant changes and improvements between the experimental and the comparison groups. Furthermore, differences between the experimental and comparison groups might have been reduced because both child groups received the same intervention in their class. Child intervention was applied in two classes only, while other contexts in school did not change.

This study is consistent with other findings that indicate no improvement in child life skills. This result is congruent to Punyapet's study (2005) that showed after participating in the life skills training program, the students in the experimental group had lower mean scores of knowledge, self-awareness level and self-esteem level of appropriate heterosexual relationship than those in the comparison group. Moreover, no significant differences were found within groups and between groups in several categories such as critical thinking and decision making, and interpersonal relationship and refusal skills. The researcher explained that this may be due to the insufficient time for each skill training and practices in the real situations. In contrast, Smolkowski and colleagues (2005) examined variability in exposure to the intervention and found no evidence that exposure to the social skills and parenting components of the intervention made a difference in outcome in overall degree of exposure, particularly measurement in a small sample size.

A second possible explanation is related to measurement. This null finding may reflect inappropriate measurement between the period of time and outcomes. As regards the results, this was supported by the interaction effect between groups and times in this study. It could be considered that time of measurement affected changes in outcome between groups. The sleeper effect detected in this study highlights the importance of measuring long term effects of preventive interventions. Longer term follow-up at least six months or up to one year is needed to assess whether the gains are maintained and whether treatments vary in program effects on child perceptions and behaviors (Barrera et al., 2002; Petrie et al., 2007; Yankah & Aggleton, 2008). Thus, it might not change or improve those life skills in children after completion of the intervention in three months. As regards to child reported in the child log book, many more appropriate activities were recorded by the participants in the experimental

group than the participants in the comparison group both in number of skills and frequency used. These might refer to more positive changes in behaviors in the fifth graders who were most often supported to develop their life skills by both the life skills training program and the parent training program (the experimental group) than those who were supported to develop their life skills by the life skills training program only (the comparison group).

This explanation is congruent with the systematic reviews of Petrie and colleagues (2007). The finding demonstrated that the short term parenting program interventions (< 1 year) had no effect in reducing risk behaviors in young children, from which eight programs showed a nonsignificant effect in reducing initiation or experimentation with drugs, alcohol or tobacco. The researchers suggested that programs should assess the outcomes in an appropriate period of time at least one and half years that might be required to reduce risk factors. The long term effect of parenting programs must also be considered for child accuracy outcome. Consistent with the systematic reviews of Yankah and Aggleton (2008), the results suggest that the life skills studies with follow-up periods of one year or more achieved better results compared with those with shorter follow-up periods. Studies that look at the short term effects of the life skills training showed increased knowledge and improved attitudes but rarely a change in behaviors. On the other hand, studies looking at the longer term effects reported increased knowledge, improved attitudes, intention to change behaviors, improved skills and sometimes changes in behaviors as well.

Once strongly established, a nonsignificant effect in preventive interventions is possible value. Barrera et al. (2002) studied a randomized trial in early elementary school intervention to reduce conduct problems. The researchers found that children and families who were experiencing the most difficulties also benefited the most from intervention in long term follow-up. This result is congruent with the findings of Mason and colleagues (2003). The finding showed the experimental group had a slower rate of linear increase over time in both substance abuse and delinquency compared with the control group. Interestingly, it was not statistically significant at the first two waves (six months) of data collection only. The researchers suggested that longer term follow-up was needed to assess the research outcome, especially the prevention program in the target group, who had less exposure to those risks. Similarly, Spoth and colleagues (2008)

presented no effect within one or two years (grades 7-9) after completing the intervention. There were positive point-in-time differences at five years (grade 12) and/or significant growth trajectory outcomes when compared with the control group, particularly the positive long term effects on substance initiation for those students who had not initiated at pretest.

It is important to note that the outcomes in this study were mediated effects. Therefore, this outcome might be modified based on the mediated influence process. Conversely, the qualitative findings showed evidence of mediation obviously noted in the child log book as above that described the parent participation in performing their behaviors or activities. Consequently, this outcome might be difficult to assess or confirm by statistical method and might need longer duration for improving child life skills.

A third alternative explanation is that this outcome may be a delayed effect. The effect might not emerge in this period. Thai school-age children just move away from the home to school, responding to structured groups and group control rules and improve their personalities (Erikson, 1963; Piaget, 1969). Moreover, most Thai children are reared by authoritarian style combined with authoritative style in the family, and the child's identity and behavior are still controlled by their family (Isaranurug & Suttisukhon, 2007). Many literature reviews have concluded that the school-age period appears to be at increased risk for engaging in health risk behaviors and appropriate for positive effects on a preventive program (Brotman & Gouley, 2006; Sarvela et al., 1999; WHO, 2003), while some studies have presented results supporting the school-age period as a latent period for measurement and implementation (Cook et al., 2008; Hawkins et al., 1999). For instance, Cook and associates (2008) concluded the meta-analytic literature on the social skills training for secondary school-age students (11-13 years) concluding that the school-age period appears to be a latency period. The results demonstrated the moderate effects for elementary school-age children as amenable to the effects of intervention and the largest effect sizes for the preschool and adolescents. The researchers reported that deviation in this period might be on an early onset trajectory of those behavioral problems. Therefore, the intervention may not have been appropriately matched to the developmental level of the school-age children. This result was congruent with the study of Hawkins and colleagues (1999). Because of nonsignificant effects on the

primary school children (5–11 years), the researchers explained that almost all children in the lower-risk group were exposed to substance abused and paid less attention to substance abuse. Thus, they must not have used the substance. The researchers suggested that the transition from primary to secondary school appeared to be an effective time to intervene but it was not beneficial for measurement.

In contrast, Botvin and associates (2003) and Botvin and Griffin (2004) reported that the school-based life skills training was also effective for elementary school students for prevention effects on tobacco and alcohol use. Likewise, Petrie and colleagues (2007) suggested that an important issue in designing programs was to identify the best time to deliver the intervention. The transition from primary to secondary school (11-13 years old) appeared to be an effective time to intervene. Six of the seven studies focusing on this age group reported improvements in outcomes. This is congruent with the evident support from Spoth and colleagues (2008). The results showed that the universal intervention should be implemented prior to children's experimentation with gateway substances. The intervention must have possibly buffered children exposed to the substances by the prevention messages and activities from the intervention.

The last possible explanation is related to cognitive approach in the life skills intervention. Improving life skills in both groups may result from the cognitive approach that developed knowledge and skill practices (Bandura, 1986; Skinner, 1953). Moreover, those cognitive approaches emphasized the cognitive problem-solving and coping skills and specific interpersonal skills and enabled students to encounter problems in their social environments. As regards improving life skills in the comparison group, it was congruent with Punyapet's study (2005). The results reported higher scores of the comparison group after implementation, too. The researcher described that it may increase because the comparison group was taught the same skills and knowledge that the experimental group received.

5.2.2 Effect on the parenting skills for child life skills development

In this study, the results showed no significant difference in parenting skills scores between two parents groups over time but after controlling the covariate, the parents in the experimental group had significantly higher parenting skills scores

than the parents in the comparison group. Large effect size (ES=1.22) was detected. In addition, the parenting skills increased significantly at each time of measurements and a significant interaction was found between types of parent group and parenting skills for child life skills development over time as well. The results demonstrated that the parent training program affected parenting skills for child life skills development as statistical evidence. This finding supported the research of Hypothesis 2.

It was congruent with many studies (e.g., Coombes et al., 2009; Kim et al., 2008; Webster-Stratton et al., 2004). For example, Kim and associates (2008) demonstrated the long term effect of their parenting program at one-year follow-up in their study. The intervention group mothers maintained the significant effect for positive discipline, while no group differences were found in some study variables including appropriate discipline, harsh discipline, children's behavioral problems, and social competence after the participants received a 12-week parenting program. Likewise, the study of Webster-Stratton and colleagues (2004) showed large positive effects on parenting in both mothers and fathers compared with controls (effects size =.51-.91) at 6-month follow up. However, it was not consistent with previous findings (Smolkowski et al., 2005; Thanisawanyangura, 2005) which promoted parenting skills for child behaviors improvement and the results showed the parenting behaviors scores of the experimental group were not significantly higher than those of the control group as well. Moreover, no group differences were found in other variables including the parents' attitude, subjective norms, parenting self-efficacy and intention.

5.2.3 Effect on parent's attitudes towards child life skills development

The finding revealed no significant difference in parents' attitude scores between two parents groups, although the covariate was controlled at the last posttest. Nevertheless, the parents' attitude toward the parenting behaviors for child life skills development increased significantly at each time of assessment, but no significant interaction was found between type of parent training intervention and parents' attitudes over time. As a result, the hypotheses regarding parents' attitudes were not supported.

Actually, the results always showed a high level of parents' attitudes in this study in both groups. The possible explanation for the nonsignificant difference is

that this may be because child life skills development and effective child rearing topics are dominant in the public mind, especially in parents' common sense. Participants already held a high level of positive attitudes on child life skills development before they joined with the program as a ceiling effect. This may lead to nonsignificant mean difference in parents' attitudes for child life skills development compared with the untreated comparison group. Attitudes were not based on scientific evidence (Ajzen, 2005). Parents who believed in the benefit of child life skills had positive beliefs and attitudes in life skills preparing their child. They were always ready to do anything that they thought the best for their child.

This finding yielded full support to the findings of DiClemente and associates (2008) that explained the parents may achieve their values and keep in mind the goal of parental monitoring to promote the self-regulatory behavior in their adolescent. Therefore, the attitude scores in parental monitoring at baseline were very high in both intervention and control groups. As the result, no effect of the intervention on parents' attitudes was observed after completing intervention.

5.2.4 Effect on subjective norms on child life skills development

The result indicated no significant difference in subjective norm scores between two parents groups, although the covariate was controlled at the last post test. In addition, the subjective norm scores did not also increase significantly at each time of assessments. As a result, the hypotheses regarding subjective norms were not supported.

This finding illustrated the parent training program did not affect on the parents' subjective norms. The possible explanation for the nonsignificant difference in parents' subjective norms over time and between two treatments is that a close relationship in family in Thai culture might encourage the parents in both groups to comply with their family and friends' norms in child life skills issue. The influences from those other significant persons, particularly mentoring, parental modeling and parental supervision, Thai people recommend that it's also very beneficial for children. It is possible that subjective norms in parents are still not changed over time because the target outcomes are positive. Thus, the lack of change in this variable may not affect parents' decisions and actions for their child's life skills development.

5.2.5 Effect on parenting self-efficacy for child life skills development

The finding showed no significant difference in the parenting self-efficacy scores between the two parents groups but after controlling the covariate, parents in the experimental group had higher parenting self-efficacy scores than the parents in the comparison group at the last post test. Medium effect size (ES=0.65) was demonstrated. However, no significant interaction was found between type of parent groups and parenting self-efficacy scores over time. Moreover, no significant differences were found in mean scores of parenting self-efficacy in each group. This finding showed that the parent training program could increase the parenting self-efficacy scores of the experimental group after the interventions. This finding supported the hypotheses regarding the parenting self-efficacy.

The data showed that the parenting self-efficacy for child life skill development was not improved in the early stages but did present a significantly positive effect later. Perhaps immediately post-treatment is too early to predict treatment success or failure, for developing the parenting self-efficacy may be a delayed response. This was supported with the scoring trend as well; the parenting self-efficacy scores in the experimental group presented a tendency to increase, while the comparison group showed a decreasing tendency. Therefore, it could be concluded that an increase in the parenting self-efficacy for child life skills development gained from this program might be maintained in the long term measurement. Competence in parenting requires both actual ability and a sense of self that includes that ability (Ajzen, 1991). It was consistent with previous findings (e.g., Rhodes et al., 2009; Rhodes & Courneya, 2003; Villarruel et al., 2008) For instance, Rhodes and colleagues (2009) presented that both parents' intention and perceived control over family physical activity were not different after intervention, whereas the intervention resulted in significant time effect and favored an increase in physical activity at the four-week post-test. Similarly, the study of Villarruel and colleagues (2008) provided improvement of parent's beliefs and communication self-efficacy after completing the intervention at the first posttest at six-month follow-up. Moreover, the results indicated that those variables had a mediated effect on parent-adolescent sexual risk communication with significance ($p<0.05$).

5.2.6 Effect on parent's intention for child life skills development

The finding showed no significant difference in parent's intention scores over time between the two parent groups, but after controlling the covariate, the parents in the experimental group had higher parent's intention scores than the parents in the comparison group at the last post test. Medium effect size (ES=0.46) was demonstrated. However, no significant interaction was found between type of parent training intervention and parent's intention over time and significant differences were found in mean scores of parent's intention in the experimental group. In this study, the parent training program could increase the parent's intention scores. As a result, all hypotheses regarding parent's intention were supported.

This finding illustrated the educational and informational approaches to improving parenting skills for child life skills development may have utility in raising intentions, but these approaches may be incongruent with the types of participants who were willing to participate in the program, presumably parents with high intentions to develop/support their children (Ajzen & Fishbein, 2005; Rhodes & Courneya, 2003). Willingness is likely to progress to intention (Fishbein & Ajzen, 2010). Parents with willingness tend to believe in, have attitudes toward child life skills development, and intend to do so.

The effects of the parent training program in this study were consistent with the results of previous meta-analyses of behavioral parent training (Kaminski et al., 2008), i.e., a significant positive effect size, supporting the use of such programs in changing parenting skills and in preventing early child behavior problems. Obviously, the mean effect size for parental outcomes appeared larger than the mean effect size for child outcomes. The effect of the intervention on parental outcomes also showed improvement of parenting skills and some parents' cognitions. This may reflect the effects of participating in parent training program where learning, social support and other practices were made available (Chamberlain et al, 2008; Kaminski et al., 2008). Particularly, the program facilitated and provided immediate reinforcement and corrective feedback to ensure parents' mastery of the skills (Chamberlain et al, 2008; Smolkowski et al, 2005; Webster-Stratton et al, 2004; Zubrick et al., 2005).

The exploration for reasonable description related to treatment success or failure for parents and children outcomes was a complex and interesting issue.

Regarding the parents' variables, no effect was found of the parent training program on some parent variables (attitudes and subjective norms), although positive effects were observed in the parent training program on some parent variables (parenting skills, parenting self-efficacy, and intention). Based on key constructs of the TPB, it should be considered for their lack of effect on those variables in the evidence.

Three plausible explanations exist as to why small effects should not be underestimated in practice. It is unclear why not only the experimental group parents but also the comparison group parents rated their behaviors and cognitions as active implementation and improving those in their child's life skills development immediately after the intervention and over time. First, it is quite possible that the program might have required timing to develop sensitivity to the needs of parents in order to ensure their motivation and also, the children may need a period of time of at least six months or up to one year to adjust their behaviors and cognitive style. Those trained parenting skills were new to most experimental group parents. The long term effect of parenting programs must also be considered (Barrera et al., 2002; Petrie et al., 2007; Zubrick et al., 2005).

The present study had a short term design of ten weeks; expanding the trial to a much longer duration would be helpful to establish whether parents can maintain their regulatory skills for child life skills development and family activity. Maintenance in these parenting skills might require a longer duration for practice and intense understanding in processes and outcomes. Several significant interactions intervention demonstrated that children and families who were experiencing the most difficulties also benefited the most from intervention (Kaminski et al., 2008; Zubrick et al., 2005).

This is consistent with the findings of others (e.g. Kim et al., 2008; Smolkowski et al., 2005). Moreover, these appeared to result from a tendency for parenting skills scores in the experimental group to improve their child life skills, whereas the comparison group demonstrated a decreasing tendency. It was expected that the relative benefits of the parent training program generally enhance with the passage of time. It seemed to be that the parents needed longer duration at least six months or up to one year to improve those parental characteristics, to contribute to better outcomes for some children (Webster-Stratton et al., 2001; Zubrick et al., 2005).

Long term follow-up also provide identifying preventive interventions that achieve long term benefits.

Second, the results may be related to the Hawthorn Effect, where the comparison group parents changed their view of what they saw as problem behaviors due to the attention they received from the researchers while participating in the informed process and in a lecture on usual child rearing. The other possible factor contributing to the comparison group's improvement might include the learning experiences during collecting data time period. All participants had to answer the same test items four times during the study period. Thinking processes between testing might have contributed to their understanding and knowledge or to give the opportunity to judge themselves regarding their weakness in child rearing. In addition, testing may have been sufficient motivation to push them to perceive the benefits of parenting behaviors and positively develop their cognitive skills for their child's life skills development. Similarly, Munro (2005) explained that the maturation process may occur from several repeated measures.

Those explanations were consistent with previous findings (Barrera et al., 2002; Kim et al., 2008; Thanisawanyangura, 2005; Smolkowski et al., 2005) which promoted parenting skills for child behaviors improvement. Kim and associates (2008) demonstrated that neither intervention group mothers nor control group mothers increased their use of appropriate discipline immediately after the intervention, although, at the one-year follow-up, intervention group mothers maintained the significant effect for positive discipline. The researchers reported that appropriate discipline strategies were new to most intervention group mothers. Obviously, Barrera et al. (2002) and Smolkowski et al. (2005) also found a significant effect for intervention on directly observed negative social behavior at the end of the intervention, while the present study detected no effect on directly observed behavior. Similarly, Thanisawanyangura (2005) studied the parents training program regarding the child's food consumption behavior in Thailand. Results showed that parents in the experimental group had only a higher score in knowledge concerning food preparation for children than the comparison group, whereas parents' attitudes and behavior were not significantly different between before and after the experiment or between both groups. The results are also in contrast to two previous studies, in which the parenting

program produced significant benefits for both parent and child behaviors one year after intervention (Chamberlain et al, 2008; Webster-Stratton et al., 2004).

In addition, another possible explanation for the latent effects is that, the parent training program assisted the parents in tackling problems and obstacles in developing their child's life skills such as time, irritated emotion, and anxiety. Moreover, this program facilitated the parents in achieving the goal of child life skills development that improved the ways to communicate to their child, and having to be a good role model for children. Additionally, the parents commented that the parent handbook was very useful for developing child life skills and handling their child. Moreover, group discussion and role playing in this parent training program made them know the way to communicate with their child, understand their children's thoughts, feelings, and reactions with them and all were discussed, experiences were shared, and exposed their perceptions were exposed in a group process in the example scenarios. In completing the work sheets with the children's process, the parents and children discussed and developed further insight into their own child's thinking, needs, and behaviors together.

To support those reasons mentioned above and Hypothesis 2, the qualitative data assessed from log books of trained parents demonstrated that they applied knowledge and practice from parent training in their daily lives, which benefited themselves in using appropriate parenting skills to develop their child's life skills. Mostly, trained parents regularly used effective communication relevant to the children's life skills developing process versus outcomes, admired or rewarded their children after they performed positive behaviors and role modeling, and learnt to be more patient with children. Moreover, the trained parents reflected positive attitudes, self-efficacy, and intention to use parenting skills and to develop their child life skills in their log book that supported the preliminary hypothesis about a possible mechanism of change in parenting skills and parents' cognition.

In sum, although the parent training program mobilized the parents to coach and reinforce their children's life skills, the research hypotheses were supported with some variables. Significant differences were observed on some variables whereas some variables presented no significant difference in those mean scores. However, the

participants including parents and children reported an improvement in children's social functioning, interpersonal skills, and decreased inappropriate social behaviors at home and school. In this way, parent's knowledge, practices and other life skills development information were transferred to the children. This interaction supports the idea that information can pass from one individual to another through family interaction particularly that which children will learn and imitate their parents' performances and other cognitive styles (Bandura, 1986).

5.3 Theoretical Aspects

The parent training program and the child life skills training program in this study were guided by the theory of planned behavior (Ajzen, 1991). The program constructs were based on the belief that the mediation of parental influences functions through parents' behavioral intention and parenting self-efficacy are determined by underling belief structures. Parents' attitudes, subjective norms, parenting self-efficacy or perceived behavioral control, intentions, and behaviors were the determinative factor influencing their child's determination. The mediating effects of parents were used as the parent-based expansion of the TPB. Thus, the program was designed through four major sources for parenting behaviors and child's behaviors development, including attitudes, subjective norms, self-efficacy, and intention.

Moreover, the parent training program based on the parent-based expansion of the TPB was designed to enhance the provision of in-home child life skills training by their parents too. Not only were the children trained by research assistants at school but also they were trained by their parents at home by teaching and doing the parent-child homework. The construction of the parent-child homework was based on the TPB. This homework consisted of questions that probed the child's and parent's beliefs, attitudes, perceptions and intention that made them understand and become more familiar with each other. The TPB provided the useful theoretical framework to explain the information the parents used to influence their child and the knowledge in parents' management for improving their child's behavior and health.

Based on all findings of this study, it could be reasonably concluded that a parent training program based on the theory of planned behavior could be useful in the development of the Thai child's life skills. Moreover, the results in parents' data clearly showed congruency with the unique TPB, i.e., that the intention and parenting self-efficacy (perceived difficulty and perceived control over parenting behaviors) for child life skills development correlated with parenting behaviors, while the parents' attitudes were incongruent with the uniqueness of the TPB. Obviously, the subjective norm is the most weakly related variable compared with intention and behavior similar to other studies (Armitage & Conner, 2001; Buhi & Goodson, 2007). Several studies have concluded that the subjective norm component of the TPB is inadequate and rarely predicts intention and behavior whereas Fishbein and Ajzen (2010) have confirmed significant correlations between subjective norms and intention and between subjective norms and behavior.

5.4 Methodological Issues

This study was a randomized controlled trial research, which aimed to examine the effects of the parent training program for their child life skills development on the life skills of school-age children. The methodological issues are discussed below.

5.4.1 Generalization

The results of this study have limited generalization since the subjects were selected from a small catchment area in Thailand. While the classrooms were randomly selected, the overall sample might still have a bias. Therefore, it is recommended that the study be replicated with a larger sample size. In addition, to better understand the effectiveness of a life skills training program, more research is needed to extend this intervention and technique method to differing populations, settings and the identified risk behaviors to prevent, such as alcohol consumption.

5.4.2 Time period of measurements

A measurement might require timing to determine its sensitivity to outcome. The opportunity to apply skills may not enable both parents and children. Therefore, it is recommended that longer term follow-up data in high school would assist the understanding of the long term implications of the intervention at the middle school level.

5.4.3 Instrumental issues

Additionally, this study relied on a self-report. Parents in both groups were active participants in the program; their responses may have been biased. Although all parents were instructed to complete the measures honestly and accurately as part of treatment for their child, these instructions might have increase the likelihood that the parents were motivated to accurately portray their child's behavior. Regardless, parental bias remains an issue that needs to be addressed and information from their couple or other family members (Xiaoming et al., 2000; Zubrick et al., 2005; WHO, 1999). Moreover, child report for their own parents' behaviors may be the best outcomes to adjust parents' behavioral changes because the children will obtain the direct effects from their parents (WHO, 2003).

Similarly, children's responses were measured indirectly through simulation scenarios and intention, not behavior as the outcome. Intentions might not be predictive with behavior (Fongkaew, Settheekul, Fongkaew, & Surapagdee, 2011; Takahashi, Koseki, & Shimada, 2009). Moreover, this was supported by the finding of Guilamo-Ramos and associates (2009). It showed that the scenario that was a set of intentions of participants accounted for 10% of the behavior of interest. Moreover, the most important effect of the intervention might have been its reduction in the rate of directly observed behavior toward peers. Using the parent and teacher ratings of children's behaviors might be highly sensitive to intervention effects, but it might be difficult to get back the data because it's very burdensome (Barrera et al., 2002; Webster-Stratton et al., 2001).

Taken together, many child development studies recommended that the measurement should be assessed with the same conditions or situations that were taught or practiced in the intervention at the school-aged period (Botvin & Griffin, 2004; Petrie

et al., 2007; Price et al., 1998; Takahashi et al., 2009). This timing was during the period of transition from the concrete to formal operational stage in Piagetian development that was the cognition stage of the product. Moreover, a parallel questionnaire should be used for confirming child's judgments. Albeit, that is not a guarantee of accuracy, it would have required additional effort to be deceptive and without gain.

5.4.4 Data analysis procedures

Regarding the results of this study, the ANCOVA presented the statistical ability to detect the differences among group means when the covariate was controlled. For example, the finding showed significant differences among groups in the parenting skills, parenting self-efficacy, and parents' intention variables after controlling the covariate whereas no significant difference was found in those variables when analyzed by the repeated measures analysis of variance. Obviously, the control of the extraneous variation provided a more accurate estimate of the real difference among groups because the effect of covariate was removed before the means were compared (Munro, 2005). Because the covariate reduces the error term, it increases the power of the test.

In addition, the maturation developed from several repeated measures cannot be investigated by the use of multivariate analysis. It should be noted, though, some improvements in the experimental group affected the intervention, but not in the comparison group, on other variables that influenced parent–child interaction.

5.5 Limitations of the Study

Like other interventions, a few important limitations to this research warrant discussion. The limitations of this study are the small sample size and the specific characteristics of middle class families in urban areas. A large sample size is needed to detect differences in outcome of interest. This intervention was only conducted in coeducational government elementary schools as the general school in an urban area in Thailand. It is unclear whether these findings can be generalized to populations different from that included in this study. Generalizations to children with different demographics and cultural characteristics should be made with caution.

CHAPTER VI
CONCLUSION

This chapter details the conclusion of the study. Two sections are provided including a summary of the study, and implications and applications of research findings to nursing knowledge development.

6.1 Summary of the study

This study focused on using life skills training among fifth graders combined with parent training for child life skills development among their parents. The theoretical framework was based on the theory of planned behavior. The randomized controlled trial was conducted to test the effects of the parent training program. Below are the two hypotheses in this study.

Hypothesis 1: The fifth graders in the experimental group have higher life skills scores than the fifth graders in the comparison group immediately, and at the first and third month after the intervention.

Hypothesis 2: The parents of the fifth graders in the experimental group have higher parenting skills and cognition scores than the parents of the fifth graders in the comparison group immediately, and at the first and third month after the intervention.

The study was conducted in one elementary school in Bangkok, Thailand, which was a coeducational government elementary school in an urban area. The fifth grade students were selected by purposive sampling method. Two classrooms in grade 5 were randomly assigned to the experimental and comparison groups Therefore, the parents who were willing to participate were also recruited from class lists along with their child. The recruitment, random assignment, and contact with participants were performed by an independent research assistant. Random assignment was concealed

until actual exposure to the intervention. The assessments were processed at baseline (pretest) and repeated three times (posttest) after the completion of the intervention to verify the effect of those programs including the posttest at immediately after the intervention, at the first and third month follow-ups.

Data in this study were collected from 26 students and their parents in the experimental group and 27 students and their parents in the comparison group. The instruments used in this study consisted of two instruments for intervention and instruments for data collection. Instruments for intervention included the child life skills training program, the parent training program, ten life skills cartoon books, the parent handbook, ten parent-child homework sheets, and child/parent log books. Instruments for data collection comprised life skills questionnaire and the parent questionnaire.

The programs' content validity and process were validated by five experts. Moreover, ten life skills-cartoon book and parent guide book contents were verified by three media experts as well. In addition, both questionnaires were validated by five experts. Item-content validity indexes (I-CVIs) of both questionnaires ranged from .90 to. 96 and scale-content validity indexes (S-CVIs) of both questionnaires ranged from .93 to .94. Evidently, the internal consistency reliability (Cronbach's Alpha coefficient) from the pilot test of all instruments proved to be acceptable through to well develop instruments and alpha ranged from .83-.94. Likewise, wordings were clear and easy to understand for participants in both age groups.

Before the intervention process, two research assistants were trained to give advice about the process during the learning hour focusing on participatory learning and group process and major principles (key words) in each skill development based on the TPB, the material used in each session in the life skills training program and facilitating of the parent training program. They received trial practice with the researcher before the real practice in the life skills training program and parent training program.

After they consented to participate and were randomly assigned to a group, the subjects were verbally administered in the instructional components of their respective group. To maximize the intervention's effectiveness, two research assistants that worked as trainers or coaches processed the intervention for one classroom (35-40 students). The

programs then were implemented as described. Students in both groups were trained in ten life skills every week through the use of interactive teaching techniques and participatory learning. The sessions were sequentially organized and continued until the program was completed. Furthermore, the classroom was randomly observed by the researcher on three occasions to assess adherence to the instructional content checklists delineating the objective and curriculum items covered.

The parents in the experimental group only were trained in parent training program with three sessions (one session monthly). The total time for implementation was three months. The parent training session was begun at least one week before the child life skills development program started in the experimental group to prepare and develop the parenting skills. The parents in the comparison group received a lecture in general information of child rearing after pretest. Data were analyzed using descriptive statistics, chi-square test, Independent t-test, the repeated measures analysis of variance and the analysis of covariance. The assumptions of repeated measures analysis of variance and analysis of covariance were also tested and no violations of those assumptions occurred.

To investigate the effect of the parent training program, hypothesis testing was carried out using repeated measures ANOVA and analysis of covariance for all variables. With regard to the life skills variable, no significant difference was found in life skills over time of assessment between the two child groups. The life skills scores increased significantly at each of the times of assessment and a positive improvement trend developed in the experimental group. The fifth graders in the experimental group represented improvement in the life skills mean scores at the first and third month after intervention, while the fifth graders in the comparison group presented lower mean scores at that time. In contrast, no significant interaction effect was observed between type of parent training intervention and child life skills scores over time. Moreover, after controlling for the covariate, those two groups did not still differ significantly in those mean scores at the third month after the interventions. Consequently, Hypothesis 1 was not completely supported in this study. No effect was found of the parent training program on the life skills mean scores across the time periods of assessment.

With regard to the parent variables, no significant difference was observed in parenting skills, attitudes, subjective norms, parenting self-efficacy, and intentions

for child life skills development over time between those two parents groups. Significant interaction was found between types of parent training intervention and parenting behaviors for child life skills development over time but not in parents' attitudes, subjective norms, parenting self-efficacy, and intention. Only the parenting skills, parents' attitudes, and intention increased significantly in mean scores at least for one pair of four time points within group.

However, after controlling the covariate using the analysis of covariance, the results had significantly higher parenting behaviors, parenting self-efficacy, and parents' intention mean scores than the parents in the comparison group at the third month after the interventions whereas the results showed no significant difference in parents' attitudes and subjective norms mean scores between two parents groups at that time. Accordingly, Hypothesis 2 was partly supported in this study.

Conclusion

The results of this study support the efficacy of the parent training program on parenting skills, and some parents' cognitive skills, including parenting self-efficacy and parents' intention in a short time period of measurement. Conversely, it does not support that effect on the child life skill in that time period. Nevertheless, this study has provided empirical evidence to understand the effect of the parent training program for child life skills development, child life skills development, and its determinants.

6.2 Implications and recommendations

The finding of this study could be used for developing and improving child life skills intervention and parent training program implemented in community. The implication and recommendation are presented below.

6.2.1 Implication for nursing practice

Although the findings demonstrated no significant differences in child life skills and some parents' cognitive skills, it could be concluded that this parent training

program for child life skills development was responding in process to develop child life skills, improve parenting skills, and enhance parents' cognitive skills. Strategies to motivate those participants to continue those skill enhancements should be performed. Moreover, the findings revealed some interesting suggestions in child life skills development in school-age children.

First, working with children requires carefully consider appropriate to their age including child interests, behaviors, and needs. Theory driven and ecological approaches are still to be the best principle for best practice to process child interventions. Both family and school should equally be viewed as the primary environment of children in which to conduct child interventions for children. Parent, teacher, and peer reports should be required to determine the accurate outcome. Home visits might be necessary. Additionally, programs should be tailored at an appropriate time to intensely implement and powerfully measure outcome. The training for younger children should focus on the generation of constructive solutions and responsibility, whereas that for adolescents would be more effective dealing with the evaluation of coping strategies. Long term follow-up is still necessary for effective outcome.

Second, collaborating with parents or family for child development should be organized through the school. The cooperative planning with school staff, parents, community members, and school nurse or health team will also support good performance and achievement**.** Providing additional support for the value of interventions involving active parental involvement should consider direct communication with parents, either face-to-face or by telephone. Moreover, programs should emphasize reducing risk factors and enhancing protective factors to sensitivity to the changing developmental needs of families, parents, and children because this can be moderated by increased parental caring and positive parent-child relationships.

In addition, active parental participation appears to be an important feature of successful interventions. The strategies for attracting parents and retaining them in programs are clear information in program purpose and program content, effective relationships, and accessible programs by providing transportation and incentives including refreshments, gift certificates, food, encouragement and monitoring (e.g.,

calling participants the night before activities, providing program calendars that highlight the date of events.), and flexible and tenacious programs.

Last, cooperating with schools including the organization's team leader and teachers should be considered. Maintenance of program fidelity can be extremely difficult if professionals work in isolation, and the workplace culture lacks support for evidence-based interventions. Researchers/school nurses and head teachers or class instructors should cooperate by teamwork in programs. Life skills training should be integrated with other educational approaches that will provide the prominence and connection with understanding in evidence including multisessions, curriculum based studies, and gender sensitive content. Ideally, life skills programs should be designed incorporating the perspectives and needs of young people and allowing them equal participation in the learning process. Program drift can occur unless program adherence is supported by the organization's leadership, so that a workplace culture built around evidence-based practices is given more than a workplace policy nod.

6.2.2 Implication for nursing education

Parent participation in school-based intervention programs is broadly believed to be a powerful strategy to promote academic success and develop child competencies such as life skills training. It is a pivotal concept in the provision of high quality nursing care for children and family. Ideally, family-based intervention in school or community involve various nursing practices including school health nursing, psychiatric nursing, and family nursing. Therefore, practices in nursing courses for both undergraduate and postgraduate nursing students should be considered to practice or have evidence-based learning for integration between scientific support and evidence-based practice.

Practice in school health nursing should focus on effective techniques in health education such as participatory learning, group process, and instructional media. Health promotion intervention using a school-based approach could be the elective course. Likewise, parent counseling, family counseling training, and family ecology particularly the mediating effects between parents and child should be practiced or studied before implementing in appropriate settings. Inservice and continuing education faculty can assist school nurses or other health care personnel to

approach the target of interest. In addition, research in family-based intervention must be continued for evidence-based practice in Thai culture.

6.2.3 Implication for national health policy

Continually integrating life skills knowledge and practice into the structure of the nation's basic education core curriculum ought to be considered and outcomes followed up among Thai student. The bridge between the ideal world of prevention science and the real world of professional practice can be reduced dramatically by serious attention to the training needs and professional activities of educators and school staff. Increased training, community commitment to the professional activities of schools, and involvement of parents would provide the basic infrastructure for promoting competence, success and health of students. A survey for program managers should be developed to assess organizational readiness to support an evidence-based program, and provide ongoing technical advice and support to agencies implementing the program.

6.2.4 Recommendations for further study

Further research needs to be conducted on various issues surrounding life skills development and parent training program as follow.

1. A large sample size is needed to detect differences in outcome of interest. With the limitations of recruitment participants, particularly parents, further studies should include participants from other schools or communities.

2. The intervention period and time measurement in the present study were considered short. Consequently, the program should be processed continuously to assess effects on child life skills development.

3. Additional research also needs to be conducted regarding subgroup analysis, which is important to harness positive outcomes. Gender and time differences would be interesting topics for the further study.

4. Measurement techniques and approaches should be multilevel including family, parent, peer, and teacher reports to verify or confirm outcome. Moreover, home visits might be needed to directly observe outcomes.

5. To better understand the effectiveness of life skills training programs using parent participation, more research is needed to extend this technique to differing populations, settings, and emphasize risky or negative behaviors such as aggressiveness, disloyal behavior, internet use, alcohol consumption, and smoking.

6.3 Contribution to nursing knowledge development

In this study, closer communication between home and school can create a positive environment in child education and competence development was clearly evident. Partnership between school and family provided benefits for child care, enhancing primarily the students and schools and providing active support to the school nurse that was viewed as a mediator in school health nursing. Nurses are one of the largest and most trusted groups of health care professionals delivering care and education to children. As such, nurses have the unique opportunity to promote life skills to the school population. Therefore, collaborating between home and school or parents and teacher enhances the appropriate outcome in targeted school-based and community-based intervention programs.

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APPENDICES

APPENDIX A
DOCUMENTARY PROOF OF ETHICAL CLEARANCE

คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล
๒๗๐ ถนนพระราม ๖ แขวงทุ่งพญาไท เขตราชเทวี กทม. ๑๐๔๐๐
โทร. ๐-๒๓๕๔-๗๒๗๕, ๐-๒๒๐๑-๑๒๙๖ โทรสาร ๐-๒๓๕๔-๗๒๓๓
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Documentary Proof of Ethical Clearance
Committee on Human Rights Related to Research Involving Human Subjects
Faculty of Medicine Ramathibodi Hospital, Mahidol University

No. MURA2010/578

Title of Project	The Effects of Parent Training Program for Their School-Age Children's Life Skills Development on Life Skills of School-Age Children
Protocol Number	ID 12 – 53 – 29
Principal Investigator	Miss Jeeraporn Kummabutr
Education Address	Department of Nursing Faculty of Medicine Ramathibodi Hospital Mahidol University

The aforementioned project has been reviewed and approved by the Committee on Human Rights Related to Research Involving Human Subjects, based on the Declaration of Helsinki.

Signature of Secretary Committee on Human Rights Related to Research Involving Human Subjects	..... Prof. Duangrurdee Wattanasirichaigoon, M.D.
Signature of Chairman Committee on Human Rights Related to Research Involving Human Subjects	..... Prof. Boonsong Ongphiphadhanakul, M.D.
Date of Approval	December 15, 2010

คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล
๒๗๐ ถนนพระราม ๖ แขวงทุ่งพญาไท เขตราชเทวี กทม. ๑๐๔๐๐
โทร. ๐-๒๓๕๔-๗๒๗๕, ๐-๒๒๐๑-๑๒๙๖ โทรสาร ๐-๒๓๕๔-๗๒๓๓
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เอกสารรับรองโดยคณะกรรมการจริยธรรมการวิจัยในคน
คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี
มหาวิทยาลัยมหิดล

เลขที่ ๒๕๕๓/๕๗๘

ชื่อโครงการ	ผลของโปรแกรมอบรมพ่อแม่เพื่อพัฒนาทักษะชีวิตในบุตรวัยเรียนต่อทักษะชีวิตของเด็กวัยเรียน
เลขที่โครงการ/รหัส	ID ๑๒ – ๕๓ – ๒๕ ว
ชื่อหัวหน้าโครงการ	นางสาวจีราภรณ์ กรรมบุตร
สถานศึกษา	ภาควิชาพยาบาลศาสตร์ คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล

ขอรับรองว่าโครงการดังกล่าวข้างต้นได้ผ่านการพิจารณาเห็นชอบโดยสอดคล้องกับแนวปฏิญญาเฮลซิงกิ จากคณะกรรมการจริยธรรมการวิจัยในคน คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี

ลงนาม .....
กรรมการและเลขานุการจริยธรรมการวิจัยในคน (ศาสตราจารย์ แพทย์หญิงดวงฤดี วัฒนศิริชัยกุล)

ลงนาม .....
ประธานกรรมการจริยธรรมการวิจัยในคน (ศาสตราจารย์ นายแพทย์บุญส่ง องค์พิพัฒนกุล)

วันที่รับรอง ๑๕ ธันวาคม ๒๕๕๓

คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล
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ที่ จวค ๘/๒๕๕๔ คณะกรรมการจริยธรรมการวิจัยในคน

วันที่ ๕ มกราคม ๒๕๕๔

เรื่อง แจ้งผลการพิจารณาของคณะกรรมการจริยธรรมการวิจัยในคน

เรียน นางสาวจีราภรณ์ กรรมบุตร

อ้างถึงโครงการวิจัยเรื่อง ผลของโปรแกรมอบรมพ่อแม่เพื่อพัฒนาทักษะชีวิตในบุตรวัยเรียนต่อทักษะชีวิตของเด็กวัยเรียน
หมายเลขโครงการวิจัย ID ๑๒ - ๕๓ – ๒๕ ว

ในนามของคณะกรรมการจริยธรรมการวิจัยในคน ผมขอแสดงความยินดีที่โครงการวิจัยดังกล่าวข้างต้นของท่านได้ผ่านความเห็นชอบ จากคณะกรรมการฯแล้ว

เพื่อให้สอดคล้องกับระเบียบปฏิบัติคณะแพทยศาสตร์โรงพยาบาลรามาธิบดี ว่าด้วยการศึกษาวิจัยและการทดลองในมนุษย์ พ.ศ. ๒๕๔๔ คณะกรรมการฯ ขอให้ท่านถือปฏิบัติโดยเป็นไปตามข้อแนะนำดังต่อไปนี้

๑. การดำเนินการวิจัยจะต้องเป็นไปตามโครงร่างวิจัยล่าสุดที่ผ่านการพิจารณาจากคณะกรรมการจริยธรรมการวิจัยในคนแล้ว
๒. การดำเนินการวิจัยจะต้องไม่เบี่ยงเบนไปจากโครงร่างวิจัยหรือมีการเปลี่ยนโครงร่างการวิจัยก่อนที่การ แก้ไขเพิ่มเติมโครงร่างวิจัยนั้นจะได้รับการอนุมัติและเห็นชอบจากคณะกรรมการจริยธรรมการวิจัยในคนก่อน ยกเว้นในกรณีจำเป็นที่จะต้องกระทำไปก่อนเพื่อขจัดอันตรายเฉพาะหน้าที่เกิดขึ้นกับผู้ยินยอมตนให้ทำวิจัย
๓. ในกรณีที่มีการเปลี่ยนแปลงชื่อโครงการไปจากชื่อเดิมที่เสนอไว้ ต่อคณะกรรมการฯ ต้องแจ้งชื่อมายังคณะกรรมการฯ เพื่อออกหนังสือรับรองให้เสมอ
๔. ผู้ยินยอมตนให้ทำวิจัยจะต้องได้รับเอกสารชี้แจงข้อมูล/คำแนะนำแก่ผู้ยินยอมตนให้ทำวิจัย (Patient/Participant Information Sheet) และลงนามในหนังสือยินยอมโดยได้รับการบอกกล่าวและเต็มใจ (Informed Consent Form) ก่อนเริ่มดำเนินการวิจัย
๕. ในเอกสารชี้แจงข้อมูล/คำแนะนำแก่ผู้ยินยอมตนให้ทำวิจัย (Patient's Information Sheet) จะต้องพิมพ์ข้อความดังต่อไปนี้ไว้ด้วยทุกครั้ง

" ถ้าท่านมีข้อข้องใจหรือมีความกังวลใจเกี่ยวกับวิธีดำเนินการวิจัยของโครงการวิจัยนี้ ท่านสามารถติดต่อได้ที่ ประธานกรรมการจริยธรรมการวิจัยในคน คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี หน่วยจริยธรรมการวิจัยในคน สำนักงานวิจัยคณะฯ อาคารวิจัยและสวัสดิการ ชั้น ๓ (ห้อง ๓) โทรศัพท์ ๐๒-๒๐๑ ๑๕๔๔ ในเวลาราชการ"

๖. ความลับของผู้ยินยอมตนให้ทำวิจัย จะต้องถูกปกปิดไว้ตลอดเวลา ยกเว้นถ้าเป็นคำสั่งตามกฎหมาย

สุดท้ายนี้ ขอให้โครงการวิจัยของท่านประสบผลสำเร็จตามความมุ่งหมายอันจะนำมาซึ่งความเจริญก้าวหน้าทางวิชาการ และเพื่อประโยชน์ของมนุษยชาติสืบต่อไป

ขอแสดงความนับถือ

(ศาสตราจารย์ บุญส่ง องค์พิพัฒนกุล)
ประธานกรรมการจริยธรรมการวิจัยในคน

สำนักงานบัณฑิตวิทยาลัย สาขาศาลายา
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โทร 0 2441 1425*312, 313 โทรสาร 0 2441 4185

ที่ ศธ 0517.02 (ศย)/ 0616

วันที่ 28 ธันวาคม พ.ศ. 2553

เรื่อง ขอความอนุเคราะห์ขอเก็บข้อมูลเพื่อประกอบการทำวิทยานิพนธ์

เรียน ผู้อำนวยการ โรงเรียนวัดทองสุทธาราม

ด้วย นางสาวจีราภรณ์ กรรมบุตร เลขประจำตัว 5037677 NRNS/D นักศึกษาหลักสูตรปริญญาเอก สาขาวิชาการพยาบาล (หลักสูตรนานาชาติ) โครงการร่วมคณะแพทยศาสตร์ โรงพยาบาลรามาธิบดี คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล กำลังทำวิทยานิพนธ์หัวข้อเรื่อง "THE EFFECTS OF PARENT TRAINING PROGRAM FOR THEIR SCHOOL - AGE CHILDREN'S LIFE SKILLS DEVELOPMENT ON LIFE SKILLS SCHOOL - AGE CHILDREN" อยู่ในความควบคุมของ ศ.ดร.รุจา ภู่ไพบูลย์ ซึ่งในการศึกษาวิจัยครั้งนี้ นักศึกษามีความประสงค์ขอเก็บข้อมูลจาก นักเรียนชั้นประถมปีที่ 5 จำนวน 30 คน และพ่อหรือแม่จากนักเรียนผู้นั้น จำนวน 30 คน เพื่อทดลองใช้เครื่องมือ โดยใช้แบบสอบถาม แบบทดสอบและโปรแกรมพัฒนาทักษะชีวิต เป็นเครื่องมือวิจัย ผู้วิจัยเก็บข้อมูล 1. ในเด็กนักเรียนให้ทำแบบทดสอบพร้อมกันแล้วรอรับคืน 2. ในพ่อแม่ส่งแบบสอบถามด้วยตนเองแล้วให้พ่อแม่ส่งกลับมากับบุตรของตนที่โรงเรียน ณ โรงเรียนวัดทองสุทธาราม ตั้งแต่วันที่ 1 มกราคม พ.ศ. 2554 ถึงวันที่ 30 มกราคม พ.ศ. 2554

บัณฑิตวิทยาลัย จึงใคร่ขอความกรุณาจากท่านโปรดอนุเคราะห์ให้นักศึกษาได้ขอข้อมูลเพื่อประกอบการทำวิทยานิพนธ์ ตามที่เห็นสมควร จักเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.เอื้อมพร มัชฌิมวงศ์)
รองคณบดีฝ่ายการคลังและพัสดุ
ปฏิบัติงานแทนคณบดีบัณฑิตวิทยาลัย

ติดต่อประธานคณะกรรมการควบคุม ศ.ดร.รุจา ภู่ไพบูลย์ โทร 08 1279 8528
ติดต่อนักศึกษา โทร 08 1618 6001

สำนักงานบัณฑิตวิทยาลัย สาขาศาลายา
25/25 ถ.พุทธมณฑลสาย 4 ต.ศาลายา
อ.พุทธมณฑล จ.นครปฐม 73170
โทร 0 2441 1425*312, 313 โทรสาร 0 2441 4185

ที่ ศธ 0517.02 (ศย)/ 0617

วันที่ 28 ธันวาคม พ.ศ. 2553

เรื่อง ขอความอนุเคราะห์ขอเก็บข้อมูลเพื่อประกอบการทำวิทยานิพนธ์

เรียน ผู้อำนวยการ โรงเรียนอนุบาลสามเสน

ด้วย นางสาวจีราภรณ์ กรรมบุตร เลขประจำตัว 5037677 NRNS/D นักศึกษาหลักสูตรปริญญาเอก สาขาวิชาการพยาบาล (หลักสูตรนานาชาติ) โครงการร่วมคณะแพทยศาสตร์ โรงพยาบาลรามาธิบดี คณะพยาบาลศาสตร์ มหาวิทยาลัยมหิดล กำลังทำวิทยานิพนธ์หัวข้อเรื่อง "THE EFFECTS OF PARENT TRAINING PROGRAM FOR THEIR SCHOOL - AGE CHILDREN'S LIFE SKILLS DEVELOPMENT ON LIFE SKILLS SCHOOL - AGE CHILDREN" อยู่ในความควบคุมของ ศ.ดร.รุจา ภู่ไพบูลย์ ซึ่งในการศึกษาวิจัยครั้งนี้ นักศึกษามีความประสงค์ขอเก็บข้อมูลจาก นักเรียนชั้นประถมปีที่ 5 จำนวน 80 คน และพ่อหรือแม่จากนักเรียนผู้นั้น จำนวน 30 คน เพื่อทำ interview และเก็บข้อมูล โดยใช้แบบสอบถาม แบบทดสอบและโปรแกรมพัฒนาทักษะชีวิต เป็นเครื่องมือวิจัย ผู้วิจัยเก็บข้อมูล 1. ในเด็กนักเรียนให้ทำแบบทดสอบพร้อมกันแล้วรอรับคืน 2. ในพ่อแม่ส่งแบบสอบถามด้วยตนเองแล้วให้พ่อแม่ส่งกลับมากับบุตรของตนที่โรงเรียน ณ โรงเรียนอนุบาลสามเสน ตั้งแต่วันที่ 1 พฤษภาคม พ.ศ. 2554 ถึงวันที่ 30 กันยายน พ.ศ. 2554

บัณฑิตวิทยาลัย จึงใคร่ขอความกรุณาจากท่านโปรดอนุเคราะห์ให้นักศึกษาได้ขอข้อมูลเพื่อประกอบการทำวิทยานิพนธ์ ตามที่เห็นสมควร จักเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.เอื้อมพร มัชฌิมวงศ์)
รองคณบดีฝ่ายการคลังและพัสดุ
ปฏิบัติงานแทนคณบดีบัณฑิตวิทยาลัย

ติดต่อประธานคณะกรรมการควบคุม ศ.ดร.รุจา ภู่ไพบูลย์ โทร 08 1279 8528
ติดต่อนักศึกษา โทร 08 1618 6001

APPENDIX B
LIST OF EXPERTS FOR VALIDATING OF INSTRUMENTS

1. The experts for content validity of questionnaires

1.1 Associate Professor Vanida Khaomongkhol Eksangsri
Chulalongkorn University Demonstration Elementary School (Social Study Education), Faculty of Education, Chulalongkorn University

1.2 Assistant Professor Arunsri Tachudhong
Department of Pediatric Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University

1.3 Assistant Professor Chuanruedee Kongsaktrakul
Department of Pediatric Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University

1.4 Assistant Professor Noraluk Ua-Kit
Faculty of Nursing, Chulalongkorn University

1.5 Dr. Suthathip Amepramsilp Department of pediatrics, Faculty of Medicine Ramathibodi Hospital, Mahidol University

2. The experts for content validity of programs

2.1 Associate Professor Vanida Khaomongkhol Eksangsri
Chulalongkorn University Demonstration Elementary School (Social Study Education), Faculty of Education, Chulalongkorn University

2.2 Assistant Professor Arunsri Tachudhong
Department of Pediatric Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University

2.3 Assistant Professor Chuanruedee Kongsaktrakul
Department of Pediatric Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University

2.4 Dr. Suthathip Amepramsilp Department of pediatrics, Faculty of Medicine Ramathibodi Hospital, Mahidol University

2.5 Mrs. Katekaew Chuampai (MSc., RN)
The President of Thai School Nurse Association

3. The experts for media validity

3.1 Assistant Professor Dr. Suttiporn Boonsong
Faculty of Technical Education, Rajamangala University of Technology Thanyaburi

3.2 Assistant Professor Gittikoon Cholwithi
Faculty of Technical Education, Rajamangala University of Technology Thanyaburi

3.3 Assistant Professor Waranee Wongkhaluang
Faculty of Technical Education, Rajamangala University of Technology Thanyaburi

APPENDIX C
PARTICIPANT INFORMATION SHEET
(THAI VERSION)

เอกสารชี้แจงข้อมูล/คำแนะนำแก่ผู้เข้าร่วมการวิจัย

(Patient/Participant Information Sheet)

โครงการ **ผลของโปรแกรมอบรมพ่อแม่เพื่อพัฒนาทักษะชีวิตในบุตรวัยเรียนต่อทักษะชีวิตของเด็กวัยเรียน** (The Effects of the Parent Training Program for Their School-Age Children's Life Skills Development on the Life Skills of School-Age Children)

ผู้วิจัย **น.ส. จีราภรณ์ กรรมบุตร**

สถานที่วิจัย **โรงเรียนอนุบาลสามเสน** (สำนักงานสลากกินแบ่งรัฐบาลอุปถัมภ์)
ถนนพระราม 6 แขวงสามเสนใน เขตพญาไท กรุงเทพ

บุคคลและวิธีการติดต่อเมื่อมีเหตุฉุกเฉินหรือความผิดปกติที่เกี่ยวข้องกับการวิจัย

น.ส. จีราภรณ์ กรรมบุตร
คณะพยาบาลศาสตร์ มหาวิทยาลัยธรรมศาสตร์ ศูนย์รังสิต ตำบลคลองหนึ่ง
อำเภอคลองหลวง จังหวัดปทุมธานี 12121 โทร 02- 9869213 ต่อ 7316-18
หรือ บ้านเลขที่ ข/1 269/46 ถนนสุวรรณศร อำเภอเมือง จังหวัดนครนายก 26000
โทร 037- 312733 และ 081-6186001

ผู้สนับสนุนการวิจัย มหาวิทยาลัยธรรมศาสตร์ และโครงการพัฒนาศักยภาพประชากรไทย
คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล

ความเป็นมาของโครงการ

ปัญหาพฤติกรรมในเด็กในปัจจุบันมีแนวโน้มเพิ่มสูงขึ้นในทุกประเทศทั่วโลก ปัญหาพฤติกรรมเหล่านี้ ได้แก่ การหนีโรงเรียน พฤติกรมก้าวร้าวใช้ความรุนแรง การสูบบุหรี่ การดื่มเหล้า การมีพฤติกรรมเสี่ยงทางเพศ การตั้งครรภ์ในวัยรุ่น เป็นต้น และจากการศึกษาพบว่า เด็กที่มีปัญหาพฤติกรรมเหล่านี้อย่างใดอย่างหนึ่งมักจะพัฒนาเป็นปัญหาพฤติกรรมที่รุนแรงขึ้นเมื่อเด็กเหล่านี้เติบโตขึ้น และเป็นจุดกำเนิดของพฤติกรรมปัญหาต่างๆในสังคมทั้งปัญหาสุขภาพกายและสุขภาพจิต และเป็นภาระค่าใช้จ่ายของคนในสังคมและประเทศอีกด้วย ทั้งๆที่มีการตื่นตัวในการจัดการแก้ไขปัญหานี้มาโดยตลอด แต่ปัญหาต่างๆเหล่านี้กลับเพิ่มขึ้นและทวีความรุนแรงมากขึ้นในหลายประเทศ ซึ่งปัญหาเหล่านี้เกิดขึ้นในประเทศไทยด้วยเช่นกัน

จากการศึกษาพบว่าปัญหาพฤติกรรมในเด็กเหล่านี้มีสาเหตุมาจาก 2 ประเด็นสำคัญ ได้แก่ เด็กขาดทักษะในการดำเนินชีวิตและทักษะความเป็นบุคคล และ พ่อแม่มีแนวทางการเลี้ยงดูเด็กและมีทักษะความเป็นพ่อแม่ที่ไม่เหมาะสม เด็กที่ขาดความสามารถในการคิดวิเคราะห์ข้อมูลต่างๆรอบตัว การตัดสินใจและแก้ปัญหาได้อย่างเหมาะสม และ ความเข้าใจตนเองและผู้อื่น จะทำให้เด็กเหล่านี้มักจะมีแนวโน้มที่จะกระทำผิดได้ง่าย โดยเฉพาะเด็กวัยเรียน (อายุ 6-12ปี) เป็นวัยที่เริ่มออกจากบ้านไปสู่สังคมภายนอก เด็กได้เรียนรู้สิ่งใหม่ๆ มีความตื่นตัวและพร้อมจะรับสิ่งต่างๆ ซึ่งล้วนแล้วแต่เป็นสิ่งกระตุ้นเร้าให้เด็กมีพฤติกรรมทางลบและพฤติกรรมเสี่ยงต่างๆมากขึ้น ดังนั้นเด็กวัยนี้จึงเป็นวัยที่เหมาะสมในการปลูกฝังความดีงามต่างๆและความเหมาะสมต่างๆในการดำเนินชีวิต

นอกจากนี้ การที่เด็กได้รับการอบรมเลี้ยงดูจากพ่อแม่ที่มีพฤติกรรมไม่เหมาะสม ขาดทักษะความเป็นพ่อแม่ จะทำให้เด็กซึมซับความคิด ความเชื่อ และทัศนคติต่างๆจากพ่อแม่ และเลียนแบบพฤติกรรมต่างๆจากพ่อแม่ การให้ครอบครัวมีส่วนร่วมในการพัฒนาความสามารถของเด็กด้านต่างๆ และพัฒนาทักษะ ความเป็น พ่อแม่ให้เหมาะสม และสอดคล้องกับทักษะต่างๆ ในเด็กร่วมด้วย ทั้งนี้เนื่องจากพ่อแม่เป็นสื่อกลางในการส่งเสริมหรือเพิ่มความสามารถของปัจจัยต่างๆของลูก ได้อย่างชัดเจน เกิดการเชื่อมต่อระหว่างพ่อแม่สู่ลูก ดังนั้นนอกจากการพัฒนาความสามารถและทักษะต่างๆในการดำเนินชีวิตให้เด็กแล้ว การพัฒนาพฤติกรรม ความคิด ความเชื่อรวมถึงทักษะความเป็นพ่อแม่ของพ่อแม่ร่วมด้วยจะทำให้เกิดประสิทธิภาพสูงสุดทั้งต่อตัวเด็กเองและครอบครัว

อย่างไรก็ดี แม้ว่าจะมีการให้ความสนใจและพัฒนารูปแบบการพัฒนาความสามารถและทักษะชีวิตของเด็กโดยให้มีครอบครัวมีส่วนร่วมมากขึ้น แต่การจัดโปรแกรมในรูปแบบนี้ยังไม่เป็นที่แพร่หลายในประเทศแถบเอเชีย โดยเฉพาะอย่างยิ่งในประเทศไทย ซึ่งจะเห็นว่า การศึกษาการพัฒนาทักษะชีวิตในเด็กในประเทศไทยโดยให้พ่อแม่มีส่วนร่วมนั้นยังไม่แพร่หลาย ทั้งที่มีเหตุผลสนับสนุนชัดเจนว่าจะทำให้มีประสิทธิภาพมากขึ้นแต่สามารถทำได้ยาก และประสิทธิผลที่ได้ยังไม่สามารถอธิบายอิทธิพลจากการมีส่วนร่วมของพ่อแม่ได้อย่างชัดเจน

ดังนั้นในการศึกษาครั้งนี้ผู้วิจัยซึ่งมีความสนใจที่จะศึกษาผลของโปรแกรมอบรมพ่อแม่เพื่อพัฒนาทักษะชีวิตในบุตรวัยเรียนต่อทักษะชีวิตของเด็กวัยเรียน โดยการวิจัยนี้เป็นการวิจัยเชิงทดลองเพื่อศึกษาเปรียบเทียบผลของการพัฒนาทักษะชีวิตในเด็กวัยเรียนระหว่างกลุ่มทดลองซึ่งประกอบไปด้วยการอบรมเพื่อพัฒนาทักษะชีวิตในเด็กวัยเรียนและการอบรมพ่อแม่ของนักเรียนเพื่อพัฒนาทักษะชีวิตในเด็กวัยเรียน และกลุ่มเปรียบเทียบซึ่งให้การอบรมเพื่อพัฒนาทักษะชีวิตในเด็กวัยเรียนซึ่งไม่มีการอบรมในพ่อแม่ ในการศึกษาวิจัยครั้งนี้นักเรียนจะได้รับการอบรมทักษะต่างๆซึ่งได้ มาจากการร่วมมือประชุมระดมสมองจากกลุ่มพ่อแม่ ครูอาจารย์ของโรงเรียนและทีมวิจัย ได้แก่ ความภาคภูมิใจในตัวเอง การคิดเชิงวิเคราะห์ การตัดสินใจและการแก้ปัญหา การจัดการกับอารมณ์ ความซื่อสัตย์ การเอื้อเฟื้อเผื่อแผ่ ความพอเพียง การรับผิดชอบต่อตนเอง การรับผิดชอบต่อครอบครัว และการรับผิดชอบต่อสังคม ในขณะที่กลุ่มพ่อแม่จะได้รับการพัฒนาทักษะความเป็นพ่อแม่เพื่อพัฒนาทักษะชีวิตในเด็กวัยเรียนและแนวทางการพัฒนาทักษะชีวิตในแต่ละทักษะในเด็กวัยเรียนอย่างสอดคล้องคู่ขนานไปกับโปรแกรมพัฒนาทักษะชีวิตในเด็กวัยเรียนที่บุตรได้รับ

วัตถุประสงค์ เพื่อศึกษาเปรียบเทียบผลของโปรแกรมการอบรมพ่อแม่เพื่อการพัฒนาทักษะชีวิตในบุตรวัยเรียนในโปรแกรมการพัฒนาทักษะชีวิตในเด็กวัยเรียนต่อทักษะชีวิตของเด็กวัยเรียน

รายละเอียดที่จะปฏิบัติต่อผู้เข้าร่วมการวิจัย

1. ผู้วิจัยจะถามความสมัครใจในการเข้าร่วมโครงการวิจัย รวมถึงบอกความน่าจะเป็นในพ่อแม่ที่ถูกสุ่มเลือกเข้ากลุ่มทดลองและกลุ่มเปรียบเทียบ สำหรับผู้ที่อยู่ในกลุ่มเปรียบเทียบจะได้รับการอบรมเช่นเดียวกับกลุ่มทดลองภายหลังจากสิ้นสุดโครงการวิจัยแล้วตามความสมัครใจและให้ลงชื่อในหนังสือยินยอมโดยได้รับการบอกกล่าวและเต็มใจทั้งยินยอมในตัวพ่อแม่เองและพ่อแม่ยินยอมแทนนักเรียนในกรณีนี้ที่กลุ่มตัวอย่างเป็นเด็กวันเรียน
2. ผู้วิจัยจะอธิบายวัตถุประสงค์ และขั้นตอนในการดำเนินการวิจัยให้กับกลุ่มตัวอย่างทั้งในกลุ่มนักเรียนและกลุ่มพ่อแม่ และผู้มีส่วนเกี่ยวข้องที่ยินดีที่จะเข้าร่วมในการศึกษาครั้งนี้
3. การอบรมในโครงการในกลุ่มนักเรียน จะ มีการให้ความรู้และพัฒนาทักษะชีวิตแบบมีส่วนร่วมทั้ง 10 ทักษะ ข้างต้นโดยใช้หนังสือการ์ตูนเป็นสื่อการเรียนการสอนแก่นักเรียนชั้นประถมปีที่ 5 ทั้ง 2 กลุ่ม โดยจะดำเนินการในคาบวิชาเรียน วิชาแนะแนว ทุกวันศุกร์ สัปดาห์ละ 1 ทักษะ จนครบ 10 ทักษะ โดยผู้ช่วยวิจัยคนเดียวกันทั้ง 2 กลุ่ม และในแต่ละสัปดาห์นักเรียนทุกคนจะได้รับโจทย์คำถามเกี่ยวกับการพัฒนาทักษะที่ได้รับการพัฒนาในสัปดาห์นั้นๆ แล้วส่งคืนผู้วิจัยในสัปดาห์ถัดไปทุกสัปดาห์
4. การอบรมในโครงการในกลุ่มพ่อแม่ที่เป็นกลุ่มทดลอง จะ มีการให้ความรู้และพัฒนาทักษะความเป็นพ่อแม่ในการพัฒนาทักษะชีวิตในเด็กวัยเรียน และการพัฒนาทักษะชีวิตใน

เด็กวัยเรียน โดยจะได้รับการอบรม 3 ครั้ง เป็นการเรียนรู้แบบมีส่วนร่วม ในรูปแบบการอภิปรายกลุ่ม การวิเคราะห์สถานการณ์จากกลุ่ม และการฝึกปฏิบัติตามโจทย์ตัวอย่าง ในระยะเวลา 2 เดือน ห่างกันครั้งละ 1 เดือนในวันเสาร์หรืออาทิตย์โดยผู้วิจัย และมีคู่มือพ่อแม่ เพื่อใช้ควบคู่ไปกับการอบรม นอกจากนี้พ่อแม่ในกลุ่มทดลองจะได้ต้องร่วมตอบคำถามตามโจทย์คำถามเกี่ยวกับการพัฒนาทักษะที่บุตรของตนได้รับ พร้อมทั้งลงนามรับทราบทุกครั้ง

5. ผู้เข้าร่วมการวิจัยจะต้องบันทึกประสบการณ์การพัฒนาทักษะชีวิตในเด็กวัยเรียนทั้งในกลุ่มพ่อแม่และกลุ่มนักเรียน เพื่อเป็นข้อมูลสนับสนุนในการเก็บรวบรวมข้อมูล

6. มีการเก็บข้อมูลก่อนและภายหลังการอบรมทันที และ ในช่วงระยะ 1 เดือน และ 3 เดือนภายหลังเสร็จสิ้นโครงการ ทั้งในกลุ่มพ่อแม่และกลุ่มนักเรียน โดยมีแนวทางการเก็บรวบรวมข้อมูล ดังนี้

6.1 กลุ่มนักเรียนจะได้รับการเก็บข้อมูลโดยให้ตอบแบบสอบถามสถานการณ์จำลองแบบเลือกตอบจาก 4 ตัวเลือก จำนวน 46 ข้อ โดยใช้เวลา ทั้งสิ้น 60 นาที และแบ่งให้ทำแบบสอบถาม 2 ช่วง ช่วงละ 23 ข้อ นานช่วงละ 30 นาที เพื่อลดภาวะไม่ตั้งใจและเบื่อหน่ายการทำแบบสอบถาม

6.2 กลุ่มพ่อแม่จะได้รับการเก็บข้อมูลโดยให้ตอบแบบสอบถาม แบบเลือกตอบจาก 5 ตัวเลือก จำนวน 66 ข้อ โดยผู้วิจัยอธิบายวัตถุประสงค์และวิธีการตอบแบบสอบถามในแต่ละส่วน หลังจากนั้นให้ทำแบบสอบถาม แล้วรอรับคืน

ประโยชน์และผลข้างเคียงที่จะเกิดแก่ผู้เข้าร่วมการวิจัย

1. ผู้เข้าร่วมการวิจัยกลุ่มพ่อแม่จะได้รับการพัฒนาทักษะความเป็นพ่อแม่และแนวทางการพัฒนาทักษะชีวิตในเด็กวัยเรียน และกลุ่มนักเรียนได้รับการพัฒนาทักษะชีวิตทั้ง 10 ทักษะ

2. ผู้เข้าร่วมการวิจัยจะได้รับคำปรึกษา แนะนำ จากผู้วิจัยเกี่ยวกับการพัฒนาทักษะชีวิตในเด็กวัยเรียนอย่างถูกต้อง ชัดเจน

3. การเก็บรวบรวมข้อมูลโดยใช้แบบสอบถาม ซึ่งการตอบแบบสอบถามจะไม่มีผลข้างเคียงที่กระทบต่อผลการเรียนของนักเรียนและการบริการที่จะได้รับจากโรงเรียน แต่อาจมีคำถามบางคำถามที่อาจจะกระทบความรู้สึก และ เกิดการเบื่อหน่ายได้

ความเสี่ยงและความไม่สบายที่คาดว่าจะเกิดขึ้นกับผู้เข้าร่วมการวิจัย

ไม่มี

การเก็บข้อมูลเป็นความลับ

ข้อมูลส่วนตัวของผู้เข้าร่วมการวิจัยทั้งกลุ่มพ่อแม่และนักเรียนที่เข้าร่วมในการศึกษาครั้งนี้ จะได้รับการเก็บรักษาไว้ ไม่เปิดเผยต่อสาธารณะเป็นรายบุคคล แต่จะรายงานผลการวิจัยเป็นข้อมูลส่วนรวม การเปิดเผยข้อมูลเกี่ยวกับพฤติกรรม ความคิดความเชื่อและการรับรู้ของ ผู้เข้าร่วมการวิจัยทั้งกลุ่มพ่อแม่และนักเรียนต่อหน่วยงานต่าง ๆ ที่เกี่ยวข้อง กระทำได้เฉพาะกรณีจำเป็นด้วยเหตุผลทางวิชาการเท่านั้น และข้อมูลในแบบสอบถามจะเก็บไว้เป็นความลับ ผู้วิจัยจะทำการทำลายแบบสอบถามเหล่านั้นด้วยตนเองภายหลังเสร็จสิ้นการวิจัย

โครงการวิจัยนี้ได้รับการพิจารณารับรองจากคณะกรรมการสิทธิมนุษยชนเกี่ยวกับการวิจัยในมนุษย์ คณะแพทยศาสตร์ โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล สำนักงานวิจัยคณะแพทยศาสตร์โรงพยาบาลรามาธิบดี อาคารวิจัยและสวัสดิการ ชั้น 3 (ห้อง3) โทรศัพท์ 02-2011544 คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี ถ.พระรามที่ 6 เขตราชเทวี กรุงเทพฯ 10400

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วันที่ 7 เดือนพฤษภาคม พ.ศ. 2554

APPENDIX D
CONSENT FORM
(THAI VERSION)

หนังสือยินยอมโดยได้รับการบอกกล่าวและเต็มใจในกลุ่มพ่อแม่

(Informed Consent Form for Parents)

ชื่อโครงการ ผลของโปรแกรมอบรมพ่อแม่เพื่อพัฒนาทักษะชีวิตในบุตรวัยเรียนต่อทักษะชีวิตของเด็กวัยเรียน

ชื่อผู้วิจัย นางสาวจีราภรณ์ กรรมบุตร

*** ชื่อผู้เข้าร่วมการวิจัย** .....**อายุ** .....**ปี**

คำยินยอมของผู้เข้าร่วมการวิจัย

ข้าพเจ้า นาย/นาง/นางสาว ..... ได้ทราบรายละเอียดของโครงการวิจัยตลอดจนประโยชน์ และข้อเสี่ยงที่จะเกิดขึ้นต่อข้าพเจ้าจากผู้วิจัยแล้วอย่างชัดเจน ไม่มีสิ่งใดปิดบังซ่อนเร้นและยินยอมให้ทำการวิจัยในโครงการที่มีชื่อข้างต้น และข้าพเจ้ารู้ว่าถ้ามีปัญหาหรือข้อสงสัยเกิดขึ้น ข้าพเจ้าสามารถสอบถามผู้วิจัยได้ และข้าพเจ้าสามารถไม่เข้าร่วมโครงการวิจัยนี้เมื่อใดก็ได้ โดยไม่มีผลกระทบต่อบุตรของข้าพเจ้าทั้งในเรื่องการเรียนการสอนและผลการศึกษา รวมถึงผลประโยชน์และการบริการจากโรงเรียนที่ข้าพเจ้าและบุตรของข้าพเจ้าพึงได้รับ นอกจากนี้ผู้วิจัยจะเก็บข้อมูลเฉพาะเกี่ยวกับตัวข้าพเจ้าเป็นความลับและจะเปิดเผยได้เฉพาะในรูปที่เป็นสรุปผลการวิจัย การเปิดเผยข้อมูลเกี่ยวกับตัวข้าพเจ้าต่อหน่วยงานต่างๆที่เกี่ยวข้องกระทำได้เฉพาะกรณีจำเป็นด้วยเหตุผลทางวิชาการเท่านั้น

ลงชื่อ.....(ผู้เข้าร่วมการวิจัย)

..... (พยาน)

..... (พยาน)

วันที่ .....

หมายเหตุ : กรณีผู้เข้าร่วมการวิจัยไม่สามารถอ่านหนังสือได้ ให้ผู้วิจัยอ่านข้อความในหนังสือยินยอมฯ นี้ให้แก่ผู้เข้าร่วมการวิจัยฟังจนเข้าใจดีแล้ว และให้ผู้เข้าร่วมการวิจัยลงนามหรือพิมพ์ลายนิ้วหัวแม่มือรับทราบในการให้ความยินยอมดังกล่าวข้างต้นไว้ด้วย

* ผู้เข้าร่วมการวิจัย หมายถึง ผู้ยินยอมตนให้ทำวิจัย

หนังสือยินยอมโดยได้รับการบอกกล่าวและเต็มใจ
สำหรับผู้เข้าร่วมการวิจัยที่ไม่สามารถแสดงความยินยอมได้ด้วยตนเอง (ในกลุ่มเด็กนักเรียน)
(Informed Consent Form for Children)

ชื่อโครงการ ผลของโปรแกรมอบรมพ่อแม่เพื่อพัฒนาทักษะชีวิตในบุตรวัยเรียนต่อทักษะชีวิตของเด็กวัยเรียน

ชื่อผู้วิจัย นางสาวจีราภรณ์ กรรมบุตร
***ชื่อผู้เข้าร่วมการวิจัย** .....**อายุ** .....**ปี**

คำยินยอมของผู้มีอำนาจกระทำการแทนผู้เข้าร่วมการวิจัย

ข้าพเจ้า นาย/นาง/นางสาว ..... ซึ่งเป็นผู้มีอำนาจกระทำการแทน ด.ช./ด.ญ. ..... ในฐานะ ..... ได้ทราบรายละเอียดของโครงการการวิจัย ตลอดจนประโยชน์และข้อเสี่ยงที่จะเกิดขึ้นต่อผู้เข้าร่วมการวิจัยจากผู้วิจัยแล้วอย่างชัดเจนไม่มีสิ่งใดปิดบังซ่อนเร้น และยินยอมให้ทำการวิจัยในโครงการที่มีชื่อข้างต้น และข้าพเจ้ารู้ว่าถ้ามีปัญหาหรือข้อสงสัยเกิดขึ้นข้าพเจ้าสามารถสอบถามผู้วิจัยได้ และข้าพเจ้าสามารถไม่ให้ผู้เข้าร่วมการวิจัยเข้าร่วมโครงการวิจัยนี้เมื่อใดก็ได้ โดยไม่มีผลกระทบต่อการเรียนและผลการเรียนที่ผู้เข้าร่วมการวิจัยได้รับ นอกจากนี้ผู้วิจัยจะเก็บข้อมูลเฉพาะเกี่ยวกับตัวผู้เข้าร่วมการวิจัยเป็นความลับ และจะเปิดเผยได้เฉพาะในรูปที่เป็นสรุปผลการวิจัย การเปิดเผยข้อมูลเกี่ยวกับตัวผู้เข้าร่วมการวิจัยต่อหน่วยงานต่างๆที่เกี่ยวข้อง กระทำได้เฉพาะกรณีจำเป็นด้วยเหตุผลทางวิชาการเท่านั้น

ลงชื่อ.....(ผู้มีอำนาจกระทำการแทน)
..... (พยาน)
..... (พยาน)
วันที่ .....

คำอธิบายของผู้ทำวิจัย

ข้าพเจ้าได้อธิบายรายละเอียดของโครงการ ตลอดจนประโยชน์ของการวิจัย รวมทั้งข้อเสี่ยงที่อาจจะเกิดขึ้นแก่ผู้เข้าร่วมการวิจัยให้ผู้มีอำนาจกระทำการแทนทราบแล้วอย่างชัดเจนโดยไม่มีสิ่งใดปิดบังซ่อนเร้น

ลงชื่อ.....(ผู้วิจัย)
วันที่.....

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* ผู้เข้าร่วมการวิจัย หมายถึง ผู้ยินยอมตนให้ทำวิจัย

APPENDIX E
INSTRUMENTS FOR DATA COLLECTION

1. The life skills questionnaire for school-age children

Instruction

1. This questionnaire consists of 2 parts as follows:
   1.1 The questionnaire consists of 46-life skills items and each item is supported by 4 different choices to answer.
   1.2 The answer sheet: the student should make “X” on the answer choice they choose.
2. Time for assessment is 60 minutes.
3. This questionnaire designed to reflect students’ judgments and intentions on their life skills in the stimulation scenarios with the simulations of scenario. Therefore, the student should answer the real thing/behaviors/intention that the student plans to do when they face those situations.
4. All identifying information will be removed from this questionnaire and destroyed as soon as all data has been collected. Please be assured that the information you provide in this study will have **no effect on your grade.**

Thank you for your participation in this study.
The Human Potential Development in Thai People Project of
The Faculty of Medicine Ramathibodi Hospital
Mahidol University

The life skills questionnaires for school-age children

Instruction: The student should make "X" on one of the 4 choices that you plan or intend to behave or choose on the answer sheet.

1. Pinky has always bought new study materials for her learning hour. She gave the reason why she bought them because they lost, she could not find them. If you are her friend, what is your suggestion?

A. If one lost, you should buy it.
B. You should buy the necessary material only.
C. ……..
D. …….

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.
.

4. If you are invited to family party and your uncle ask you to drink some cup of beer or wine. How will you decision?

A. Say "No" and describe that alcohol harm to your health such as cirrhosis. You should not drink alcohol, please.
B. …….
C. …….
D. Say "No", because I don't want to drink.

.
.
.

10. If you are playing your favorite game and your mom asks you to buy some sauce for her at the grocery, what will you do?

A. Complain to mom why you did not ask with other, but you go out to buy sauce for your mom.
B. Pause the game and go out to buy……..
C. ……
D. Tell mom to buy it by herself because you are playing intently.

15. You are on the way and sit on the bus with big shopping bag and your school bag. What will you do, if you see the old woman don't have the seat?

A. Wait for other to give his/her a seat to old woman. If not, you will give her.

B. ……

C. Pretend that you don't see that old woman because you have the huge bag and a lot of thing in your hand, you cannot stand with that bag in the bus.

D. …….

.
.
.

25. You have always seen a boy is looking you every time you play with your friend. How do you do in this situation?

A. Invite him to play with me but give him only some old toys.

B. …….

C. …….

D. Expel him because I afraid him will steal anything in my house.

.
.
.

33. Your friend sells some products on over price at the school cooperative shop and keep that money for herself. If you know this, how do you do?

A. Tell this to teacher

B. Pretend that you don't know and see anything that your friend does.

C. Suggest your friend that ……..

D. ……..

.
.

36. You want to reward yourself with new toy because you got the great scores in the last final examination. What should you do for rewarding yourself?

A. Tell my parents to buy it.

B. ……

C. ……

D. Bye it from your saving-money.

37. If you see someone throw away some garbage in the river. What should you do?

A. Tell this to everyone in the community

B. Forbid him and tell this to the police and other to punish him.

C. …….

D. ……

.
.
.

40. If you see your friends quarrel and fight in school. What should you do?

A. ……

B. Tell this to teacher because you think that all should be harmony.

C. …….

D. Cheer some that you know and be your friend

.
.
.

46. Father reward Koy by giving her 2,000 bath that she got "A" on last examination. Koy plan to buy new phone and save 500 bath with bank. Do you agree with Koy?

A. Disagree because this money is my reward, I should pay all money.

B. ……..

C. Partly agree because I think I should use this money with more benefit. I will buy ……..but not buy phone because it's not necessary for me.

D. .....

……..

2. The Child Life Skills Development Questionnaire for Parents

It consisted of a set of socio-demographic questions and five sets of questionnaires to assess parenting skills and cognition, including attitudes, subjective norms, parenting self-efficacy, and intention in child life skills development as follows:

2.1 Parenting skills for child life skills development

2.2 Parents' attitude toward parenting skills for child life skills development

2.3 Subjective norms for child life skills development

2.4 Parenting self-efficacy for child life skills development

2.5 Parents' intention in parenting skills for child life skills development

……

❒ **Demographic Questionnaire**

Gender male ❑ female ❑

Age ..... year

Marital Status couple ❑ widow/divorce/separate ❑

Education ❑ lower than bachelor degree Please identify.....

❑ bachelor degree .....

❑ higher than bachelor degree Please identify.....

Career .....**Income/month** .....bath (include your and your couple)

Children .....person boy..... person girl ..... person

Other family member .....

2.1 Parenting skills for child life skills development

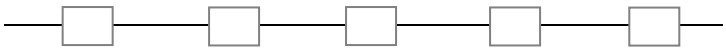
Instruction: The following sentences refer to your behaviors that you behave to develop your child life skill during **last 3 months until now**. Please mark with "X" in box that reflects your behaviors.

Sentences	definitely false	false	uncertain	true	definitely true
1. I have taught my children to have self-esteem.					
2. I have taught my children to have critical thinking.					
. . .					
10. I have taught my children to have self-responsibility.					
9. I have taught my children to have family-responsibility.					
10. I have taught my children to have social-responsibility.					
11. I have been a good model in generosity in daily life.					
. . .					
16. I have been a good model in generosity in daily life.					
17. I have been a good model in sufficiency in daily life.					
. . .					
21. I have monitored and supervised my children to have self- esteem.					
22. I have monitored and supervised my children to have critical thinking.					
23 I have monitored and supervised my children to have appropriated decision making and problem solving.					
. . .					
30. I have monitored and supervised my children to have social responsibility.					

2.2 Parents' attitude toward parenting skills for child life skills development

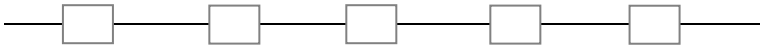
Instruction: The following sentences refer to your attitudes toward parenting skills for child life skills development during **last 3 months until now**. They make use of rating scales with 5 places. Please mark with "X" in box that best describes your opinion.

1. For me to teach my children to have life skills is……



Extremely worthless	Almost worthless	uncertain	Less valuable	Extremely valuable

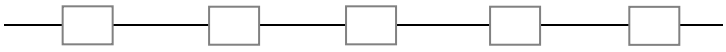
2. For me to teach my children to have life skills is…….



Extremely bad	…..	……	……	Extremely good

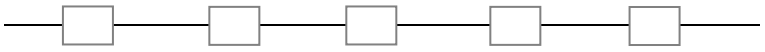
.
.
.

5. For me to be good modeling based on life skills is……



Extremely worthless	Almost worthless	uncertain	Less valuable	Extremely valuable

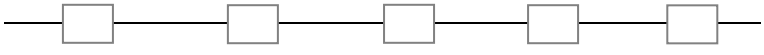
6. For me to be good modeling based on life skills is…….



Extremely bad	…..	……	……	Extremely good

.
.
.

12. For me to monitor and supervise my children to behave based on life skills is……



Extremely unpleasant	Almost unpleasant	uncertain	Less pleasant	Extremely pleasant

2.3 Subjective norms for child life skills development

Instruction: The following sentences refer to your opinion about the mentions of the important persons on your actions for child life skills development during **last 3 months until now**. Please mark with "X" in box that describes your opinions.

Sentences	strongly disagree	disagree	uncertain	agree	strongly agree
1. People who are important to me (i.e. your parents, family, peer, and other) want me to develop my children's life skills, therefore, I have taught life skills to my children.					
2. People who are important to me (i.e. your parents, family, peer, and other) want me to develop my children's life skills, therefore,….					
3. People who are important to me (i.e. your parents, family, peer, and other) want me to develop my children's life skills, therefore,….					
4. Most people whose opinions I value would approve of the life skills development in my children. So that it make me ……..					
5. Most people whose opinions I value would approve of the life skills development in my children. So that it make me have been a good model in order to develop the life skills to my children.					
6. Most people whose opinions I value would approve of the life skills development in my children. So that it make me have taught the life skills to my children.					

2.4 Parenting self-efficacy for child life skills development

Instruction: The following sentences refer to your opinion about your ability to have parenting skills for child life skills development during **last 3 months until now**. Please mark with "X" in box that best describes your opinion.

Sentences	strongly disagree	disagree	uncertain	agree	strongly agree
1. For me to teach/suggest my children for their life skills development is not Difficult to do.					
2. I am confident that if I wanted to teach/suggest my children for their life skills development. I can absolutely do that, although ….. ……..					
3. Whether I teach/suggest my children for their life skills development or not is entirely up to me.					
4. The decision to teach/suggest my children for their life skills development is beyond my control.					
. . .					
8. The decision to be a good model for my children in order to develop their life skills is beyond my control.					
9. For me to monitor or supervise for my children in order to develop their life skills is ……...					
. . .					
12. The decision to monitor or supervise for my children in order to develop their life skills is beyond my control.					

2.5 Parents' intention in parenting skills for child life skills development

Instruction: The following sentences refer to your opinion about your intention to have parenting skills for child life skills development during **last 3 months until now**. Please mark with "X" in box that best describes your opinion.

Sentences	strongly disagree	disagree	uncertain	agree	strongly agree
1. I want to teach/suggest my children for their life skills development.					
2. I want to be a good model for my children in order to develop their life skills.					
3. I want to monitor or supervise for my children in order to develop their life skills.					
4. I intend to teach/suggest my children for their life skills development.					
5. I intend to be a good model for my children in order to develop their life skills.					
6. I intend to monitor or supervise for my children in order to develop their life skills.					

APPENDIX F
THE PROGRAMS FOR INTERVENTION

1. Child Life Skills Training Program

Session	Objective	Method	Activity
Session 1: **1.1Introduction**	- Greeting	- Game and singing song	- Introduction & greeting in the first day. The researcher introduced herself, makes relationship to the students, and describes objectives, time, schedule, and benefit of the program. **Teaching and Training**
	- Increasing awareness in life skills by modifying in all salient beliefs in life skills	- Group discussion - enactive mastery experience, verbal persuasions	- Research team provided students groups to discuss about life skills and the life skills' necessary for life. The students were divided into groups of 8-10 to discuss in those topics. - Research team lectured life skills' benefit and important for ……..
Session 1: **1.2 Self-esteem**	- promoting attitude toward self - esteem skill	- Story telling, group discussion	- Research team gave cartoon book, told story "***I proud myself***" that portrayed self-esteem skills, and concluded the lesson learn.

Session	Objective	Method	Activity
Session 1: Self-esteem (continues)	- promoting attitude toward the self-esteem skill (continues)	- Direct experience, verbal persuasions, behavioral rehearsal, group discussion	- The students in the same group were assigned to discuss in the cartoon's topic: self-esteem. - The students were persuaded to present …… for personal worth and strengths or self-efficacy. - Research team provided persuasive information addressing the wide range of self-esteem skill and ……...
	- promoting subjective norms on skills for self-esteem	**At classroom** :behavioral …… **At home** :verbal …….	- Research team discussed with class focused on ……. - Research team gave each student a homework that ……..
	- increasing perceived behavioral control for self-esteem	- group discussion and demonstration	- Research team encouraged the students ……. for self-esteem. . . .
	- promoting intention for self-esteem	- group demonstration	**Conclusion** - Research team concluded over all of class training. - Research team persuaded students accept and intend to behave self-esteem skill.

Session	Objective	Method	Activity
Session 2: Critical Thinking	- promoting attitude toward skills for critical thinking	- role play, ...	- The students were divided into groups of 7-8 students and assigned to discuss and role-play …….. ▪ *How do you do when your friends ……..?* ▪ *How do you do if your best friend ……..?* . . .
	- promoting subjective norms on skills for critical thinking	**At classroom** :behavioral …….	- Research team discussed with class focused …….in the topic: ▪ *How do your parents or family member perceive if you use the critical ……..?*
		At home : verbal ……	- Research team gave cartoon book "***It's bad because…***" that …… in the question: ▪ *If you are Tae,……..?* ▪ *If you are ……. the bad scores?*
	- increasing perceived behavioral control	- group discussion and ……	- Research team encouraged …….
	- promoting intention for critical thinking	- group demonstration	**Conclusion** - Research team concluded over all of class training. - Research team persuaded students accept and intend to behave critical thinking skill.

Session	Objective	Method	Activity
Session 3: Decision-making and problem solving	- promoting attitude …… . . .	- role play, behavioral rehearsal, group discussion . . .	- The students were divided into groups of 7-8 students and assigned to discuss and role-play based on the decision-making and problem solving skill in one of the following. ▪ *What activity do you decision to do ……..?* ▪ *How do you do if you want to buy new toy but it's too expensive ……..?* - Rewarding ……. . . .
	- promoting subjective norms on skills ….	**At home :** verbal persuasions, emotional arousal	- Research team will give cartoon book "***Why you must select ?"*** that portrayed decision-making and problem solving skills …… . . .
	- increasing PBC (continues)	- goal setting	
	- promoting intention for decision-making and problem solving	- group demonstration	**Conclusion** - Research team concludes over all of class training. - Research team persuades students accept and intend to behave coping with emotion skill.

Session	Objective	Method	Activity
Session 4: Coping with emotion	- promoting attitude toward skills for coping with emotion skill	- behavioral rehearsal, group discussion . . .	- The students will be divided into groups of 7-8 students and assigned to ……. ▪*Do you have the conflict ……..…?* *(for group produced newspaper already)* . . .
	- promoting intention for coping with emotion skill	- modeling - group demonstration	- Research team convinces the students to commitment to set goal for promotion coping with emotion skill. **Conclusion** - Research team concludes over all of class training. - Research team persuades students accept and intend to behave coping with emotion skill.
Session 5: Honesty	- promoting attitude toward the honesty skill	- Direct experience, verbal persuasions, behavioral rehearsal, and group discussion	- The students will be divided into groups of 7-8 students and assigned to role-play in situation if you find money 500 Bath in class, what do you feel at the first sight? And how do you do? - Then, group discussion will be provided to analyze the reasons why …… . .

Session	Objective	Method	Activity
Session 5: Honesty (continues)	- promoting subjective norms on skills for honesty - promoting subjective norms on skills for honesty (continues)	**At classroom** :behavioral rehearsal, group discussion, enactive mastery experience **At home** :verbal persuasions, emotional arousal	- Research team discuss with class focused on peers and parents' norms and their opinions on the one who have honesty and not have in the topic: ▪ *How do your parents or family member perceive if you behave and not behave honesty?* ▪ *How do your friends perceive if you behave and not behave honesty?* - Research team will give cartoon book "***This pencil belongs to..……?***" that portrayed honesty back student's home for using in homework with their …… understand the situation in the question: ▪ *If you are Oong, ……...?* ▪ *If you are Pang, how do you feel?* . . .
	- promoting intention for honesty	- group demonstration	**Conclusion** - Research team concludes over all of class training. - Research team persuades students accept and intend to behave honesty.

Session	Objective	Method	Activity
Session 6: Generosity . . .	- promoting attitude toward the generosity skill . . .	- Direct experience, verbal persuasions, ...	- The students will be persuaded to present their own experience about generosity and their feeling by voluntary. Rewarding from …. . . .
Session 10: Social - responsibility	- promoting attitude toward social-responsibility skill . . .	- telling story and group discussion . . .	- Research team gives cartoon book and tells story "***Whose responsibility? 3***" that portrayed social-responsibility skills…….. . . .
		At home: verbal persuasions, emotional arousal	- Research team gives each student a homework that behind of cartoon book for doing with parents at home…… …….
	- promoting intention for social-responsibility skill	- group demonstration	**Conclusion** - Research team concludes over all of class training. - Research team persuades students accept and intend to behave social-responsibility.

2. The Parent Training Program

Session	Objective	Method	Activity
Session 1: **- Introduction**	- Greeting	-	- Introduction & greeting in the first day. The researcher describes objectives, schedule of each session, time, and benefit of program.
	- Increasing self-awareness by modifying in all salient beliefs in child life skills development.	- Lecture , enactive mastery experience, verbal persuasions, group discussion -enactive mastery experience and emotional arousal from scenario-based risk information	- Researcher lectures about life skills' benefits, life skills training program, and influence from parenting skills. - Researcher presents the VDO "Try" (a Dr. Rutja Phuphaibul's copyright) to emphasize cause and outcome ……... . . .
Session 1: **The five-former child life skills** -self-esteem, -critical thinking, -decision-making problem solving, -coping with emotions, and -honesty skills	- Promoting parent's attitude toward child life skills for self-esteem……, and honesty	- lecture, verbal persuasions, behavioral rehearsal, group discussion . . .	- Researcher provides persuasive information addressing salient beliefs in child's self-esteem, critical thinking, decision-making and problem solving, coping with emotions, and honesty skills…… . .

Session	Objective	Method	Activity
Session 1: - **The five-former child's life skills** (continues)	- Promoting parents' subjective norms	- verbal persuasions, group discussion	- Researcher discusses with parents class in advantage and disadvantage of parents' supports for those skills.
	- Promoting parents' perceived behavioral control (self-efficacy) for those child's life skills development	- lecture, behavioral rehearsal, group discussion	- The researcher guides the practice for develop each skills and how to develop those skills in children - The researcher describes the method for increasing self-efficacy (PBC) in supporting student including verbal arousal, support information about ……... . . .
	- promoting parent's intention in supporting both skills development in their child.	- lecture, group discussion	**Conclusion** - The Researcher concludes over all of class training. - The Researcher persuades parents accept and intend to support those skills development in their child.

Session	Objective	Method	Activity
	- Promoting parents' perceived behavioral control (self-efficacy) for those child's life skills development	- verbal persuasions, emotional arousal**,** and reflection	**Between session** - The researcher will call on the participant to ask their problems and doubts and reflects the participants answer and provides the suggestion.
		- reflection, rewarding	-The homework exercises in each week will be evaluated and reflected by using symbolic rewarding outcome (e.g., 👍or👎, ☺ or ☹), and sent back to students and parents. - The homework issue: ▪ 1st Week-Self-esteem- *Own child's self-esteem and parents' proud?* ▪ 2nd Week-Critical thinking- *How should your child do? And why?* ▪ 3rd Week-Decision-making and problem solving- *How should your child do? And why?* ▪ 4th Week-Coping with emotions- *How your child should express feeling and emotion and how to manage?* ▪ 5th Week-Honesty- *Own child's honesty, and what you suggest your child?*

Session	Objective	Method	Activity
Session 2: - **The five-latter child life skills** -generosity, -sufficiency, - self-responsibility, -family-responsibility**,** -social-responsibility skills	- Promoting parent's attitude toward child life skills for generosity, sufficiency, self-responsibility, family-responsibility**,** and social-responsibility	- lecture, verbal persuasions, behavioral rehearsal, group discussion	- Researcher provides persuasive information addressing salient beliefs in generosity, sufficiency, self-responsibility, family-responsibility**,** and social-responsibility skills, those skills advantages, and ……. - Researcher provides the knowledge about those skills and stress major or important points …….. child.
	- Promoting child's attitude toward those life skills by parents at home . .	- group discussion, behavioral rehearsal, enactive mastery experience . . .	- Researcher discusses about parents' role for increasing child' attitude those skills with group and invites some parents who have the experiences …….. . . .
	- Promoting parenting self-efficacy for those child's life skills development	- lecture, behavioral rehearsal, group discussion	- The researcher guides the practice for develop each skills and …….. - The researcher describes the method for increasing self-efficacy (PBC) in supporting student, including ……

Session	Objective	Method	Activity
Session 2: - **The five-latter child's life skills** (continues)	- promoting parent's intention in supporting both skills development in their child.	- lecture, group discussion	**Conclusion** - The Researcher concludes over all of class training. - The Researcher persuades parents accept and intend to support those skills development in their child.
	- Promoting parents' perceived behavioral control (self-efficacy) for those child's life skills development	- verbal persuasions, emotional arousal**,** and reflection	**Between session** - The researcher will call on the participant to ask their problems and doubts and reflects the participants answer and provides the suggestion.
		- reflection, rewarding	-The homework exercises in each week will be evaluated and reflected by using symbolic rewarding outcome (e.g., 👍or👎, ☺ or ☹), and sent back to students and parents. - The homework issue: ▪ 6th Week- Generosity ▪ 7th Week- Sufficiency ▪ 8th Week- Self- responsibility ▪ 9th Week- Family-responsibility ▪ 10th Week- Social-responsibility

Session	Objective	Method	Activity
Session 3: Reflection and conclusion	- Promoting parents' perceived behavioral control (self-efficacy) for child's life skills development	- group discussion - verbal persuasions, emotional arousal**,** and reflection	- Class discussion is conducted for life skills' benefits and the advantages for children after the children receive and perform the life skills development program - The researcher discuss with class about the anticipated impediments and obstacle to support student and about the solution in that obstacles. - The researcher provides persuasive information addressing all salient beliefs in child life skills again and the parental influence for emphasizing and shifting parents' perspective in life skills development.
	- promoting parent's intention in supporting both skills development in their child.	- lecture, verbal persuasions, emotional arousal, group discussion	**Conclusion** - The Researcher concludes over all of class training. - The Researcher persuades parents accept and intend to support both skills development in their child.

APPENDIX G
THE STATISTICAL ASSUMPTION TESTING

Before the data analyses were carried out, data were screened to ensure completion and accuracy. In addition, the assumptions for the repeated measures analysis of variance and the analysis of covariance were examined for a powerful interpretation of the results as following.

1.) Test of normality: The normal distribution testing was considered by using the Shapiro-Wilks statistic, the Fisher's measures of skewness and kurtosis and approved by histogram, Q-Q plot, and box plot. In this study, handling outliers were organized. All dependent variables both in children variables and parent variables showed the skewness and kurtosis values between +1.96 and –1.96 or the Shapiro-Wilks statistic testing presented the results as normality (p-value > .05). All variable were tested normality as follow.

1.1 Life skills variable

Experimental group

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Life Skills_Pre test	.176	26	.038	.925	26	**.059**
Life Skills_Post-test 1	.175	26	.039	.917	26	**.039**
Life Skills_Post-test 2	.127	26	.200*	.932	26	**.089**
Life Skills_Post-test 3	.172	26	.046	.869	26	**.003**

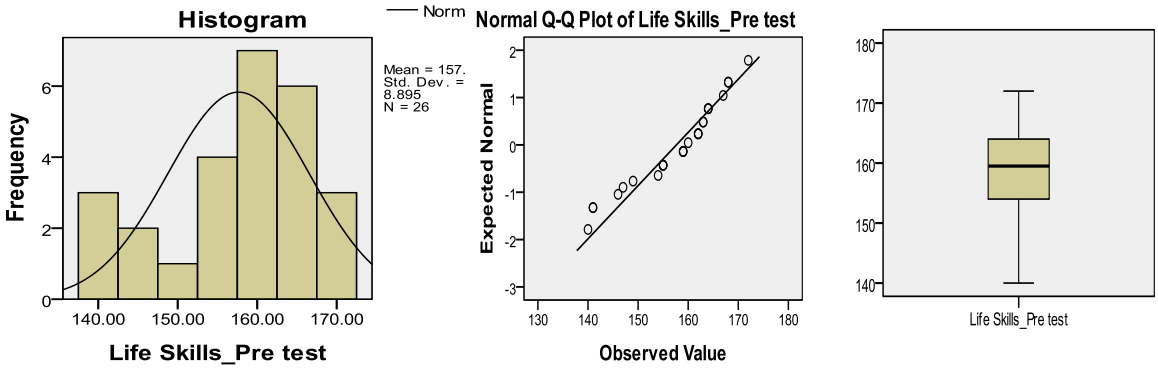
a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

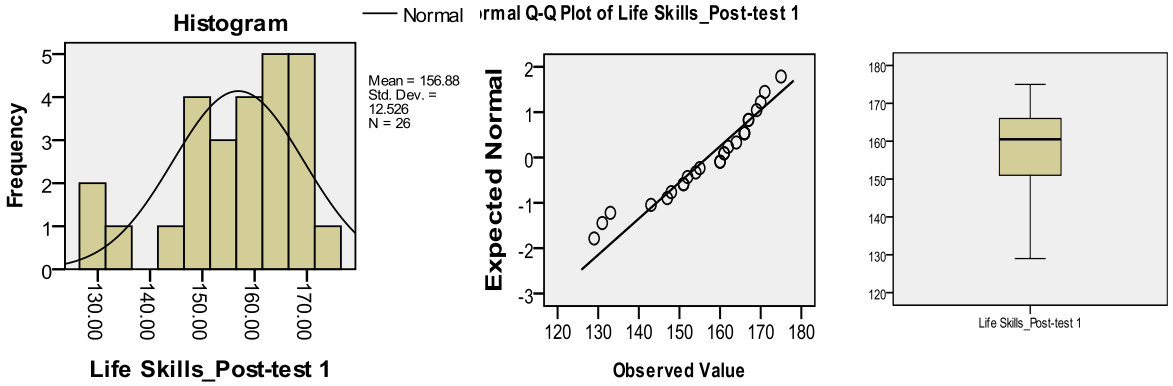
Fisher's Measures of Skewness and Kurtosis of Study Variables

Variable	Skewness	Std. Errors	Fisher's Value	Kurtosis	Std. Errors	Fisher's Value
Life Skills_Pre test	.675	.456	**1.480**	-.400	.887	**-.451**
Life Skills_Post-test 1	-.876	.456	**-1.921**	.073	.887	**.082**
Life Skills_Post-test 2	-.738	.456	**-1.618**	-.151	.887	**-.170**
Life Skills_Post-test 3	-.841	.456	**-1.844**	-.378	.887	**-.426**

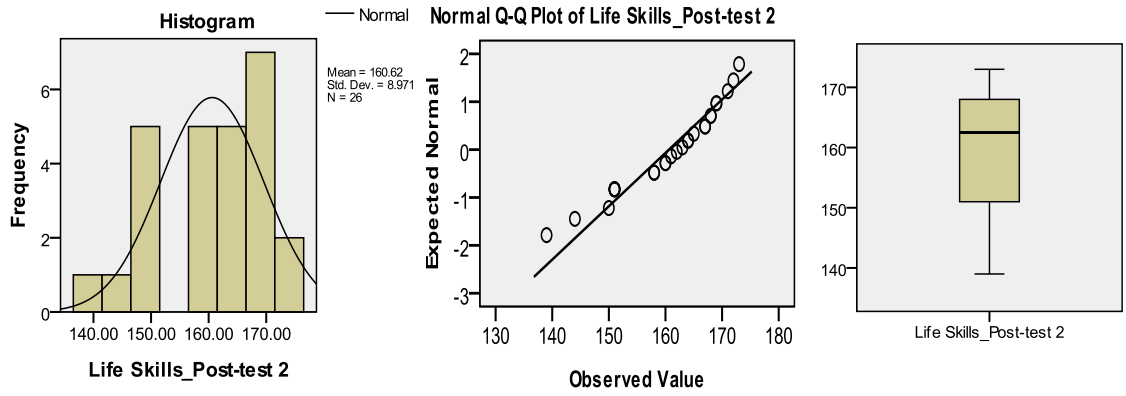
- **Life skills – Pre test**



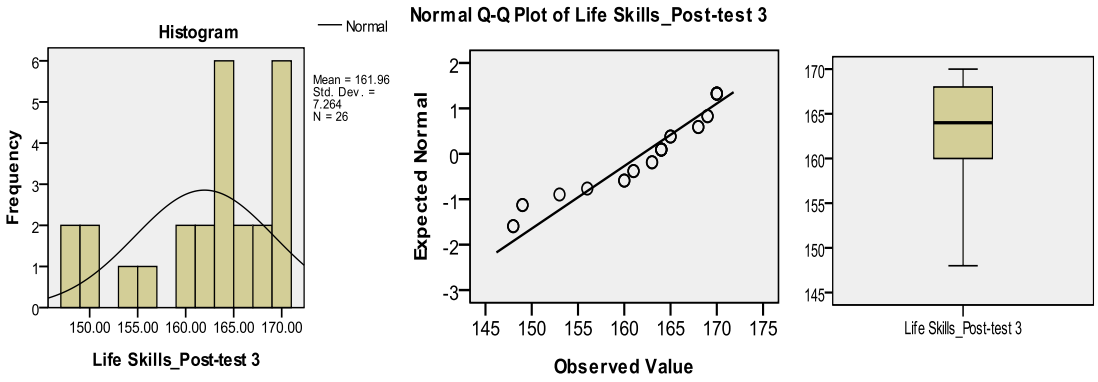
- **Life skills – Post test 1**



- **Life skills – Post test 2**



❒ Life skills – Post test 3



Comparison group

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Life Skills_Pre test	.160	27	.075	.901	27	**.014**
Life Skills_Post-test 1	.198	27	.008	.868	27	**.003**
Life Skills_Post-test 2	.109	27	.200*	.959	27	**.352**
Life Skills_Post-test 3	.122	27	.200*	.956	27	**.297**

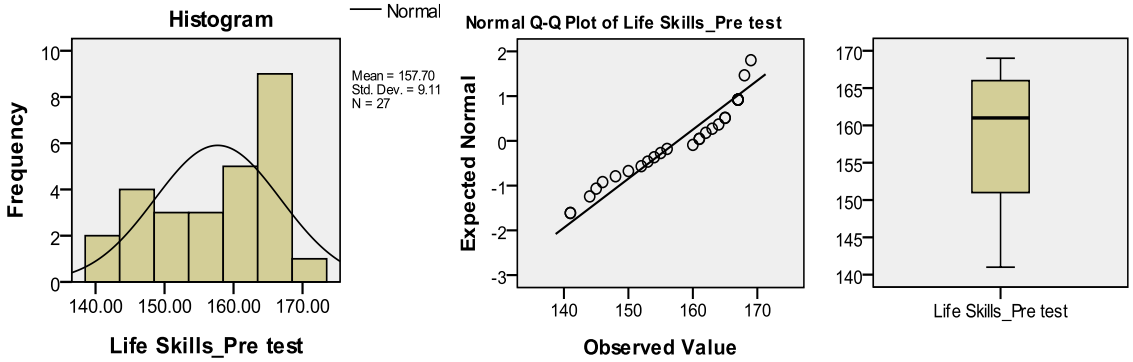
a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

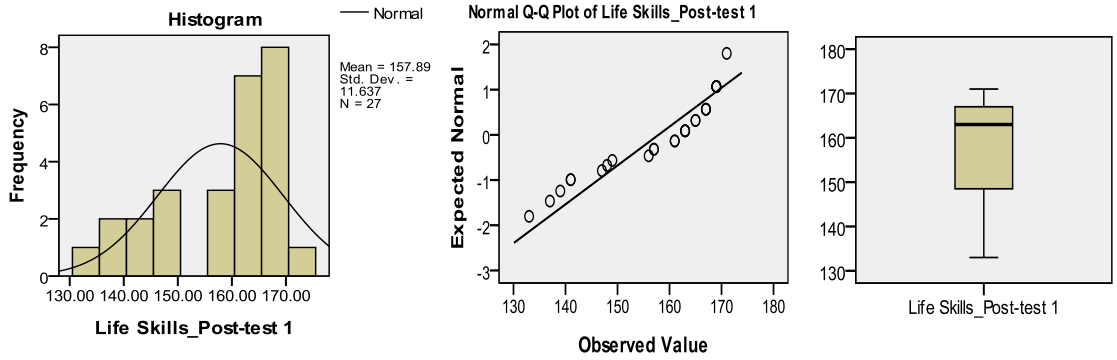
Fisher's Measures of Skewness and Kurtosis of Study Variables

Variable	Skewness	Std. Errors	Fisher's Value	Kurtosis	Std. Errors	Fisher's Value
Life Skills_Pre test	-.515	.448	**-1.149**	-1.112	.872	**-1.275**
Life Skills_Post-test 1	-.825	.448	**-1.842**	-.664	.872	**-.761**
Life Skills_Post-test 2	-.426	.448	**-.951**	-.247	.872	**-.283**
Life Skills_Post-test 3	-.431	.448	**-.962**	-.366	.872	**-.420**

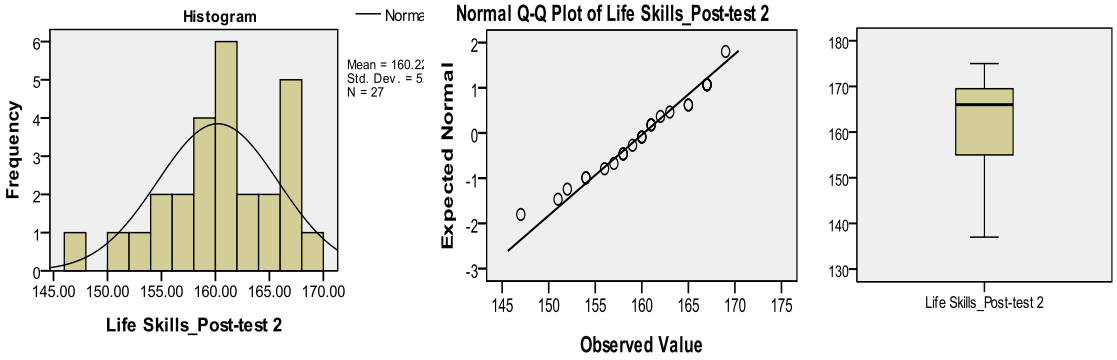
❒ Life skills – Pre test



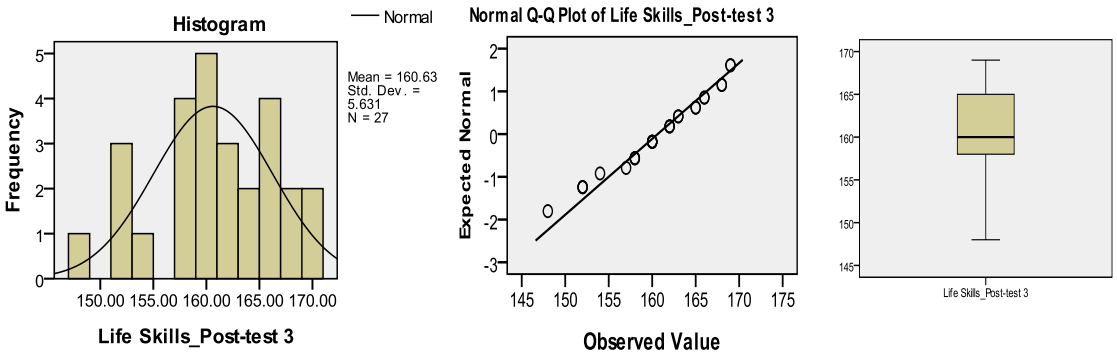
- **Life skills – Post test 1**



- **Life skills – Post test 2**



- **Life skills – Post test 3**



Graphs, plots and other that presented above were some exempla in normality testing. All of variables in both groups in all of those 4 times point of measurements were still significantly tested.

In Addition, the tests of the assumption of homogeneity of variance for the equivalent variance in each group and the compound symmetry for the equivalent variance on all four of the measures were described in two-variable groups as following.

2.) The assumption of the analysis of covariance (ANCOVA)

Before analyzed, assumptions of ANCOVA analysis were checked. Linearity, the homogeneity of regression across groups and homogeneity of variance in the variables of interest were presented for testing those assumptions.

Life skill variable: The life skill scores at baseline and the life skill scores at the 3rd month after the interventions showed a linear relationship (r = 0.442). There is no significant interaction between type of training and life skill scores at baseline presented (p= 0.785). The assumption of homogeneity of variance for the outcome measure was met (Levene's test, p= 0.198).

Parents' variable: The parenting skills and parents' cognitive scores at baseline and those parenting skills and parents' cognitive scores at the 3rd month after the interventions showed a linear relationship (r from 0.215 to 0.439). There is no significant interaction between type of training and those parenting skills and parents' cognitive scores at baseline presented (p from 0.082 to 0.914). The assumption of homogeneity of variance for the outcome measure was met (Levene's test, p from 0.690 to 0.802).

3.) The assumption of the repeated measures analysis of variance

Life skills variable: The Box's tests of equality of covariance matrices in the life skills variable indicated equal levels across the between-subject factor (type of training: group) (p = 0.473). Moreover, no significance in Levene's tests of equality of error variance for the between-subject factors that indicated the equivalent variance in each group were met (p-values from 0.222 to 0.838) except for the post-test 2 (p = 0.021). It found slightly violate the assumption in some variable. In this study, a violation of the equal variance in each group was not serious because covariance matrices in the life skills variable presented equal levels across groups. The test

statistic was still robust (with respect to Type I error) against a violation of this assumption (Stevens, 2009).

As regarded the assumption of the compound symmetry, the Mauchly's test of sphericity in the life skills variable presented different significance (p = 0.00). Therefore, the Huynh-Feldt epsilon was considered. The result show no differently significance (p = 0.879), indicated that the assumption was met.

Parents' variable: With regarded to the dependent variables from parents, the Box's tests of equality of covariance matrices in those variables indicated equal and unequal levels across group. The Box's tests in parents' attitude supported equal levels across group (p = 0.279). In addition, the Levene's tests indicated the equivalent variance in each group (p-values from 0.232 to 0.923).

For the parenting skills variable, subjective norms variable, parenting self-efficacy variable, and the intention variable; the Box's tests of equality of covariance matrices yielded the p-values = 0.034, 0.00, 0.006, and 0.002, respectively that signified unequal levels across group. The Levene's tests of equality of error variance presented the equivalent variance in each group in the parenting skills variable (p-values from 0.00 to 0.497), subjective norm variable (p-values from 0.003 to 0.102), parenting self-efficacy variable (p-values from .032 to 0.416), and intention variable (p-values from 0.00 to 0.134). It found slightly violate the assumption in some variable. Within the equal group size, a violation of the equal covariance matrices assumption was not serious. The test statistic was still vigorous against a violation of this assumption (Stevens, 2009). It was not powerful enough to lead to Type I error.

As regarded the assumption of the compound symmetry, the Mauchly's test of sphericity in the parents variable including the attitude variable, subjective norms variable, parenting self-efficacy variable, and the intention variable yielded the p-values = 0.728, 0.178, 0.985, and 0.815, respectively that signified the equality of variances across all four measures (time). The parenting skills variable showed significance in the Mauchly's test (p = 0.010), the assumption had not been met. Hence, the Huynh-Feldt epsilon was reported for test the equality of variances across four times (p = 0.933). The result showed the equality of variances.

Moreover, the multivariate tests revealed the differences in mean scores of the variables of interest across the time. The tested result as a p-value <.05 in the life

skills variable (time: p = 0.005), the parenting skills variable (time: p = 0.015), the attitude variable (time: p-values = 0.019), and the intention variable (time: p = 0.003) indicated that the results between four times differed significantly at least one pair, not including the subjective norms variable and parenting self-efficacy variable. The corrected univariate results gave the same result. These statistical tests should be supported with the pairwise comparison between each pair (time). Briefly, there were any differences in mean scores of all those scores across the four time periods.

BIOGRAPHY

NAME	Miss Jeeraporn Kummabutr
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