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**GUIDING TAIWANESE KINDERGATENERS' EMOTIONAL
UNDERSTANDING AND EMOTION REGULATION: THE EFFECTS OF
CHILDREN'S PICTURE BOOKS**

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by

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ABSTRACT

The purpose of this study was to investigate the impact of children's picture books and activities on the emotional understanding and emotion regulation of 5- and 6-year-old Taiwanese students. A quasi-experimental design was employed to examine the effectiveness of different treatments on children's emotional understanding and emotion regulation between treatment groups. The treatment groups were composed of three kindergarten classrooms in one school situated in the south of Kaohsiung City, Taiwan. Three treatments were randomly assigned to each treatment group: Experimental Group One was given children's picture books related to emotions and extra activities related to the English alphabet; Experimental Group Two was given children's picture books and extra activities related to emotions; and the control group was given children's picture books related to animals and extra activities related to the English alphabet. The investigator was the instructor of the three treatment groups. Each group received treatments, twice per week, 40 minutes per session, for eight weeks.

Instruction assessments used in this study included the Emotion Recognition Questionnaire (ERQ), which measures children's emotional understanding by the research assistant; the Emotion Regulation Checklist (ERC) of school teachers, which assesses children's emotion regulation; and the Head Start Competence Scale-Parents Version (HSCS-P), which examines children's emotional understanding and emotion regulation by parents. These assessments were distributed before treatments began and again after two weeks of treatment. The research assistant, teachers, and parents were in charge of measuring children's emotional understanding and emotion regulation.

Analyzing data via One-Way ANOVA, the results of the ERQ as evaluated by the research assistant showed that there are differences between treatment groups. The mean difference (posttest minus pretest) for Experimental Group Two was significantly higher than that for the control group. Teachers used the ERC to evaluate children's emotion regulation; results showed that a statistically significant difference arose among the three treatment groups. The mean difference (posttest minus pretest) for Experimental Groups One and Two was significantly higher than that for the control group. The results of the HSCS-P, which were evaluated by parents, showed that there are no significant differences in children's emotional understanding and emotion regulation among the three treatment groups.

Study findings showed that in the opinion of school teachers, children's emotion regulation were influenced after treatments related to emotion. From the ERQ as evaluated by the research assistant, children's emotional understanding was also improved by books and extra activities related to emotion. The study results could provide researchers, counselors, and early childhood practitioners with guidelines and resources for future emotional learning possibilities using children's picture books and related activities.

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Chapter 1

INTRODUCTION

This study investigated the effects of children's picture books on 5- and 6-year-old Taiwanese students' emotional understanding and emotion regulation. Emotional understanding means identifying and labeling one's own and others' emotions, and knowing the motivations for feelings and distinguishing feelings from actions (Goleman, 1995, p. 283). Emotion regulation is the ability to manage one's emotions and expressions of emotions (Saarni, 1999).

This chapter includes the following sections: (a) background, (b) statement of problems, (c) purposes of the study, (d) need for the study, (e) research questions, and (f) definition of terms. Each section is explained below.

Background

Emotion has a great influence on individuals' interpersonal relationships, personality, mental health, and so on. People with stable emotions understand how to get along with people and keep themselves feeling happy. The Taiwanese Government guides students' emotional competencies by providing different educational resources and strategies and also by encouraging schools to combine guidance, teaching, and student affairs in teaching (Ministry of Education, 2006). To enhance students' emotional competencies and ability to adapt to life, the Taiwanese Government emphasizes

life-education as a beneficial work (Ministry of Education, 2006). Life-education in Taiwan includes emotional awareness, self-control, self-awareness, and learning styles (Chen, 2003). Through life-education, children can learn how to recognize emotions, express feelings appropriately, perform self-control and self-identity, and automatically seek help (Chen, 2003).

Children's picture books are the most common and popular teaching resources used on Taiwanese research and classes with young children (Chen, 2000; Chen, 2004; Lin, 2006; Wu, 2004). In Taiwan, children's books are used when working with children in different areas of concern, such as behavioral problems (Chen, 2004), emotional problems (Cheng, 1999), emotional competencies (Chen, 2000; Chen, 2004; Lin 2006; Wu, 2002; Wu, 2004), and social development (Chiu, 2005; Kao, 2002). Children's picture books are commonly used in Taiwanese research regarding children's emotional learning to increase children's emotional competencies, emotion regulation, emotional understanding, and emotional expressions (Chen, 2000; Chen, 2004; Lin 2006; Wu, 2002; Wu, 2004). Moreover, research indicates that children learn better through visuals rather than words, and picture books convey knowledge and perceptions of emotions (Wu, 2002).

The main focus of this current research was guidance of Taiwanese students' emotional understanding and emotion regulation through use of children's books. Enhancing children's emotional competencies is important and emphasized in Taiwan. The Taiwanese Government propagates children's learning via a focus not only on cognition, but also in combination with other developmental tasks. In addition, children's

books are not only good resources for teaching and learning language, but also for strengthening children's emotional competencies and reducing their emotional problems.

Statement of Problems

Denham (1998) indicated that preschool-aged children's emotional competencies include expression, understanding, and regulation. Goldman (1995) argued that people who have better emotional competencies can reduce the risk of having emotional problems. Emotional learning can give children better emotional understanding, which can assist them in developing emotion regulation (Kostelnik, Whiren, Soderman, & Gregory, 2006), and further influence children's social competencies (Greenberg, Kuschâe, Cook, & Quamma, 1995). Once children's emotional understanding and emotion regulation are enhanced, their emotional competence increases as well, and alleviates emotional problems.

There are two major problems in Taiwan related to children's emotional development and learning. The first problem is that the increasing percentage of Taiwanese children with emotional problems (Department of Health, Taipei City Government [DHTCG], 2005; Ministry of Education, 2006). The Ministry of Education in Taiwan found that most Taiwanese children's emotional problems include depression, suicidal tendencies, Internet addiction, and negative personality characteristics (Ministry of Education, 2006). In a 2006 report from the Taiwanese Ministry of Education, it is stated that around 30% of Taiwanese students have depressive difficulties, and 4% need medical assistance due to serious depression. Reportedly, about 40% of Taiwanese

students have attempted or committed suicide. In addition, Internet and video game addictions influence their interpersonal relationships and emotional competencies. Taiwanese students also lack frustration capacity, are overly dependent, and are self-centered (Ministry of Education, 2006). All of these emotional and social problems directly influence Taiwanese students' mental health.

In Taipei, the capital city of Taiwan, 24.5% of high school students are struggling with emotional problems, and 31% have severe to high emotional disturbances (DHTCG, 2005). Taiwanese high school students indicated that their methods for releasing pressure are not effective, or they do not know how to seek assistance to release pressure (DHTCG, 2005).

The second problem is that Taiwanese students struggle with academic pressure that is related not only to school work, but also to socio-economic status and interpersonal relationships (Ministry of Education, 2006). The importance of developing emotional competencies is easily overlooked at school, and teachers focus on other developmental tasks, such as language and cognition (Chang 2002; Chen, 2004; Lin, 2006). Paying little attention to children's emotional learning and development causes children to have more emotional problems and disorders (Denham, 1998; Goleman, 1995;). Feeling safe and cherished, understanding emotion regulation, and having positive peer relationships are fundamental for nurturing other developmental tasks (Zins, Elias, Greenberg, & Weissberg, 2000).

The percentage of Taiwanese students struggling with mental health problems seems very high. Pressure from school and homes and paying little attention to children's emotional learning endanger children's mental health. Thus, reducing children's

emotional problems and discovering how to strengthen children's emotional competencies are prerequisites for children's mental health.

Purposes of the Study

The study had two major purposes: The first purpose was to investigate the efficacy of using children's picture books to develop the emotional understanding and emotion regulation of 5- and 6-year-old Taiwanese children. In this study design, the effects of three approaches that involved the use of children's picture books with extra activities in three groups of 5- and 6-year-olds, focusing on emotional understanding and emotion regulation, were compared.

The second purpose was to assess children's emotional understanding and emotion regulation via quantitative methods (e.g., assessments—Emotional Recognition Questionnaire (ERQ) for children, Emotion Regulation Checklist (ERC) for teachers, and Head Start Competence Scale (HSCS) for parents).

This study included investigation of the effectiveness of using children's books in gaining insight into children's emotional understanding and emotion regulation of children using different assessments. Information gained via the two purposes of the study can help interested researchers and educators understand more about the role of children's picture books in enhancing children's emotional understanding and emotion regulation.

Need for the Study

The study is needed for three reasons. First, the most common strategies for analyzing Taiwanese studies related to children's picture books and young children's emotional learning are qualitative research methods (Chen, 2000; Lin, 2006; Wu, 2004). Thus, quantitative research methods can provide additional references, if researchers intend to explore the field of children's emotional development and emotional learning.

Second, better emotional competencies in children can effectively prevent children from having emotional problems, such as depression, violent outbursts, and anxiety (Denham, 1998; Goleman, 1995). Outcomes from this study can help Taiwanese caregivers and educators better understand the efficacy of picture books on children's understanding of emotion and emotion regulation, and can provide Taiwanese educators and researchers with information that will enable them to appropriately use picture books in children's emotional learning.

Last, Taiwanese studies (e.g., Chen, 2000; Lin, 2006; Wu, 2004) have used picture books and activities to develop different parts of children's emotional competencies but have provided little information regarding effects. Wu (2004) used picture books to promote children's emotional competencies, which include emotional expression, emotional understanding, and emotion regulation. Wu (2004) stated that children gained more understanding of how to manage their emotions in her study, but she did not provide much information about children's performances regarding emotional understanding. Chen (2000) stated that children in her study developed better skills for changing negative emotions, but the evaluation of children's emotional understanding is

not clear and the evaluation of children's emotional expressions was inconsistent for the educator and the investigator. Lin's study (2004) also applied a series of children's picture books to cultivate children's emotional competencies. She documented improvements in children's emotional understanding through story book reading by the teacher, and employed qualitative research methods to analyze changes in children's emotional competencies. In Taiwanese research, the effects of picture books on emotion regulation have been evaluated positively, but more investigations are needed to establish clearer effects of books on children's emotional understanding.

In summary, employing quantitative research methods to investigate the effects of children's books on young children's emotional understanding and emotion regulation is needed to enhance emotional learning among Taiwanese. Evaluating the influence of children's books on emotional learning should be taken into consideration when designing studies or curricula on emotional learning.

Research Questions

Through three assessments, this study investigated the effects of children's picture books on 5- and 6-year-old Taiwanese children's emotional understanding and emotion regulation. The four major research questions were as follows:

Research Question One. What differences exist in children's emotional understanding as indicated by the ERQ, as measured by pre- and posttests, when children are taught by one of following approaches? Three treatment group approaches were used for this study:

Experimental Group One: Using children's picture books that relate to emotions with related discussion, as well as extra activities that focus on a different concept—the English alphabet.

Experimental Group Two: Using children's picture books that relate to emotions with related discussion and activities.

Control Group: Using children's picture books that do not relate to emotions, with related discussion and activities, as well as extra activities that focus on a different concept—the English alphabet.

Research Question Two. What differences exist in children's emotion regulation as assessed by the Emotion Regulation Checklist (ERC) of teachers, as measured by pre- and posttests, when children are taught by one of following approaches? The three treatment group approaches used in this study were as follows:

Experimental Group One: Using children's picture books that relate to emotions with related discussion, as well as extra activities that focus on a different concept—the English alphabet.

Experimental Group Two: Using children's picture books that relate to emotions, with related discussion and activities

Control Group: Using children's picture books that do not relate to emotions, with discussion and activities, as well as extra activities that focus on a different concept—the English alphabet.

Research Question Three. What differences exist in children's emotional understanding as assessed using the subscale for emotional understanding on the Head Start Competence Scale-Parents Version (HSCS-P), measured by pre- and posttests,

when children are taught using one of the following approaches? The three treatment group approaches used for this study were as follow:

Experimental Group One: Using children's picture books that relate to emotions with related discussion, as well as extra activities that focus on a different concept—the English alphabet.

Experimental Group Two: Using children's picture books that relate to emotions, with related discussion and activities.

Control Group: Using children's picture books that do not relate to emotions with discussion and activities, as well as extra activities that focus on a different concept—the English alphabet.

Research Question Four. What differences exist in children's emotion regulation, as assessed by the subscale for emotion regulation on the Head Start Competence Scale-Parents Version (HSCS-P), measured by pre- and posttests, when children are taught via one of the following approaches? The three treatment group approaches used for this study were as follows:

Experimental Group One: Using children's picture books that relate to emotions with related discussion, as well as extra activities that focus on a different concept—the English alphabet.

Experimental Group Two: Using children's picture books that relate to emotions with related discussion and activities.

Control Group: Using children's picture books that do not relate to emotions with discussion and activities, as well as extra activities that focus on a different concept—the English alphabet.

Definitions of Terms

Some specialized terms used in this study included: (a) emotional learning, (b) emotional competence, (c) emotional understanding, (d) emotion regulation, and (e) children's picture books. Each term is explained below:

Emotional Learning

Emotional learning is an educational process that fosters fundamental emotional competencies that enables people to better understand and manage emotions (Collaborative for Academic, Social, and Emotional Learning, n.d.).

Emotional Competence

The components of emotional competencies are emotional expression, emotional understanding, and emotion regulation (Denham, 1998; Goleman, 1995). Self-awareness and self-management are both included in emotional competencies (Denham, 2005). Emotional competencies include emotional understanding and emotion regulation which were enhanced and measured in this study.

Emotional Understanding

Individuals are able to detect their own emotional states, others' emotional states, and use the vocabulary of emotion (Denham, 1998, p. 3). Understanding one's own

emotions is part of self-awareness (Denham, 2005). The emotional understanding of children was measured using the ERQ and HSCS-P.

Emotion Regulation

Individuals are able to cope with aversive and pleasurable emotions, or the situations that educe them, strategically up-regulating the experience and expression of emotions at appropriate times (Denham, 1998, p. 3). Regulation means that the power of control is directly generated by individuals (Saarni, 1999). The terms emotion regulation, although grammatically awkward, is commonly used in the literature (e.g. Denham, Hyson, Landy, Saarni, and so on) to describe this situation. The emotion regulation of children was measured using the ERC and HSCS-P.

Children's Picture Books

Children's picture books include pictures, the story, the plot, the actions, the expressions of the characters, and the changing settings (Huck & Kiefer, 2004). Illustrations and narrative are combined in children's books (Glazer, 2000).

Chapter 2

REVIEW OF THE LITERATURE

The purpose of this study was to investigate the effects of children's books on Taiwanese children's emotional understanding and emotion regulation. This chapter presents relevant literature regarding emotional development, emotional competencies which include emotional understanding and emotion regulation, and children's picture books. This chapter encompasses the following sections: (a) emotional development, (b) emotional competencies, and (c) children's picture books in emotional learning. Each section in this chapter is explained below.

Emotional Development

Infants have uneven rates of growth (Emde, Gaensbauer, & Harmon, 1976) and each young child has an individual pace for maturing. Children's emotional development may be roughly categorized into: (a) emotional emergence, (b) indicators of basic feelings (happiness, sadness, anger, and fear), and (c) inferential factors for cultivating children's emotional development. Each categorization is described below.

Emergence of Emotions

Humans, across all cultures, experience emotions. No matter what emotions people experience, emotions seems universal and innate (Darwin, 1965; Ekman &

Davidson, 1994). Between 1890 and 1950, it was believed that young children felt few emotions in their minds and hearts; now people know that infants experience basic feelings because early in their lives they evince the ability to express more complex feelings (Zambow & Hanson, 2007).

Observing emotions is difficult because emotions are internal states. While examination of infants' actual feelings in their brains is an imperfect process, evidence of feelings may still be observed on their faces (Landy, 2002). In the first year of life, primary emotions gradually occur in the following order: joy (at appropriately six weeks), anger (at about three to four months), sadness (at approximately five to seven months), and fear (at nearly six to 12 months) (Kostelnik et al., 2006). Joy, anger, sadness, and fear are four fundamental feelings that contribute to the future emergence of emotions (Kostelnik, Soderman, & Whiren, 2007). The younger are capable of experiencing stranger distress at the age of eight to ten months and attain a peak of separation distress at around 13 to 18 months (Emde, Gaensbauer, & Harmon, 1976).

Children's emotional development gradually increases in the first five years of life (Kostelnik et al., 2007). Between the ages of two to three, children increase their language ability, enabling them to express their feelings (Landy, 2002). A child, at age three, can connect emotions with appropriate social situations by identifying drawings of appropriate facial expressions (Dunn, Brown, Slomkowski, Tesla, & Youngblade, 1991). Children's emotions are more related to the events they experience or situations around them. For instance, a child feels happy when having ice-cream or candies. Children at age four to six years have better ability to control their emotions, but they still seek

caregivers' protection in scary situations (Landy, 2002). Preschoolers' abilities to experience and know emotions become more complicated (Luby, 2002).

Cognition works with emotions to generate emotional experiences, or sometimes they lead each other (Lewis & Michalson, 1983). However, cognition plays an important part in emotions (Denham, 1998). Language becomes an important tool in preschoolers' learning (Greenberg & Kusche, 1993). Since preschoolers have better language ability, performance allows them to verbalize and identify feelings rather than to act on them (Luby, 2005). As language increases, preschoolers begin to discover strategies for coping with negative feelings and to use language to regulate their emotions (Greenberg & Kusche, 1993). In a word, children's language abilities impact their emotional development, and the preschool year is a critical time for children to develop emotional competence.

Indicators of Basic Feelings

Understanding the characteristics of basic feelings is essential in developing children's emotional skills. Children's basic feelings first begin with happiness, sadness, anger, and fear, and then other feelings become known (Denham, 1998). All individuals exhibit special expressions on their faces when experiencing various emotions. Denham (1998) indicated that the characteristics of the facial expressions of basic feelings are as follow:

Happy: A combination of smile, laughter, and voices with "pearly," relaxed pitch.
Sad: Marked by crying, inner corners of eyebrows lifted, corners of lips down, and slow, steady-pitched speech.

Mad/Angry: Seen as lowered brows, tense lower lips, and staring. The speech of angry persons is clipped, abrupt, and often loud.

Scared: Shows tight brows, raised, and drawn together, with high pitched voice. (p. 24)

Goleman (1995) added that the facial expressions of a person who feels scared are as follows:

The mouth is open and drawn back. The eyes are open and the inner corner goes up. There are wrinkles in the middle of the forehead. (p. 271)

Inferential Factors of Emotional Development

Factors influencing children's emotional development and competencies include (a) environment, (b) educators, and (c) parents. Each factor is discussed in the following sections.

Environment

Children's development and success require the effective provision of emotional security in the classroom (Janson & King, 2006). Children learn in a secure and safe environment that allows them to feel free to express themselves and make mistakes in learning (Elias, 1997). Therefore, creating a secure environment for children's development and learning is important.

In order to provide such a secure environment in which children may develop emotions, Hyson (2004) indicated some necessary prerequisites, such as predictability, acceptance, and responsiveness. Predictability can help children feel secure in their environments (Hyson, 2004; Janson & King, 2006). For example, every decoration and

setting can make children feel comfortable and pleasant. Children understand that the school environment is a space they can rely on; it is a predictable space in which they know what happens in the classroom everyday, making them feel comfortable and relaxed in class (Hendrick & Weissman, 2007).

Learning environments that are full of acceptance help children feel emotionally secure (Hyson, 2004; Janson & King, 2006). The feeling of acceptance arises from teachers' attitudes (Hyson, 2004). When teachers smile and greet students, children feel their behaviors are acceptable to caregivers. Whether the achievement is great or small, teachers should appreciate children's achievements and differences. Children should be allowed to risk making mistakes and to fix problems at any time. Immediately admitting or correcting mistakes is not shameful. Children who feel accepted can develop self-confidence and cultivate other emotional traits (Hyson, 2004).

A responsive climate plays a crucial role in establishing children's emotional security (Hyson, 2004). Children's project work is often based on their interests and displayed in class; their presence contributes to establishing children's emotional security. A child surrounded by a responsive environment easily feels safe and protected.

Young children need to live and learn in an environment that is calm and soothing (Hendrick & Weissman, 2007; Landy, 2002). When the environment fluctuates, some children become overstimulated than others. For instance, as the environment becomes noisy or the routine changes, hypersensitive children become unstable and irritable. An unhurried daily routine should be established for children (Hendrick & Weissman, 2007). Giving children a relaxed schedule and providing them with time to complete their work enable them to develop emotional skills.

Educators

Building a strong relationship and using firm language to communicate with children are beneficial for developing emotional security in classrooms (Janson & King, 2006). Warm relationships between educators and children foster children's emotional development (Hyson, 2004). For example, teachers respond to children's needs and accept their feelings when children wish to be recognized, comforted, and included (Hyson, 2004). Furthermore, teachers should believe that children can learn and should share their personal experiences with problem-solving, both of which also help in children's development of emotional competence (Elias, 1997).

Teachers' body language and voice influence children's emotional development (Hyson, 2004). Words benefit children's language and emotional development. Caregivers' conversation not only increases children's vocabulary and reading skills, but also brings a sense of security to children through the presence of soft, warm voices (Hyson, 2004). The sound of words can make children feel calm and soothed when learning or waiting for something.

Children's awareness of caregivers' warm facial reactions can establish emotional security (Hyson, 2004). For example, a caregiver who often smiles at children leads them to feel secure and warm. This process assists a child in having more positive reactions. Additionally, caregivers should always be in proximity to children and have a close relationship with them (Hyson, 2004). When getting along with students, teachers show caring, openness, and responsiveness, which help them establish good relationships with students (Elias, 1997).

Moreover, affectionate touching also has a direct effect on promoting children's sense of security (Hyson, 2004). In the classroom, caregivers express their concern and care by giving a hug or an affectionate touch. These contacts make children easily feel safe in a fluctuating environment. Most preschoolers love affectionate touches from adults, but some children are exceptions, such as physically and sexually abused children.

Parents

Babies learn facial expressions from adults (Harris, 1989). When parents raise babies, children observe their parents' facial expressions and imitate them. Goleman (1995) argued that the home is the first school that teaches emotional learning. Parenting style directly impacts children's development of emotional competence. Parents are children's emotional coaches or mentors (Goleman, 1995). Children learn emotions not only from parents' behaviors and speech, but also from their communication and reactions to each other (Goleman, 1995). For example, discipline from harsh parents endangers children's cultivation of emotion regulation (Chang, Schwartz, Dodge, & McBride-Chang, 2003). On the other hand, emotionally intelligent parents are good models for children as they learn behaviors and emotional management.

If a child has a dysfunctional family—one that has experienced devoiced, unemployment, and poverty—then the child may be vulnerable to personality development and emotion regulation (Saarni, 1999). However, parents who handle feelings well can help children deal with emotions better. Children with better emotional

competencies benefit through the gaining of social skills which eventually results in cognition (Goleman, 1995).

An emotional learning curriculum can be instituted effectively if parents become involved in children's development (Weare, 2004). Schools should notify parents about activities and curricula and encourage parents to play supportive roles. Additionally, parents even can cooperate with the school in delivering the goals of the curricula. Family and community involvement are very beneficial; their presence may serve to improve children's behaviors and learning (Weare, 2004).

Parents can learn appropriate parenting skills in parenting programs (Weare, 2004). Children might be raised according to different parenting styles, including neglect, overindulgence, and harshness (Weare, 2004). To assist parents in improving their parenting skills, schools can provide classes and resources for parents. Parents should consider their children as special and unique, have clear rules and boundaries, concentrate on listening, use praise and encouragement rather than punishment, engage in play and fun, and allow themselves to be less than perfect parents (Weare, 2004). Those who follow this will see a noticeable decrease in children's emotional and behavioral problems.

Young children need assistance from caregivers to develop their emotional competence. Caregivers need to patiently listen to children before saying or doing anything (Elias, 1997). Paraphrasing children's feelings helps children understand and control emotions (Hendrick & Weissman, 2007). Because young children have limited language comprehension and are often unable to express their feelings, paraphrasing should be short and simple for their understanding (Hendrick & Weissman, 2007). When

children face problems, appropriately identifying feelings and teaching them how to accept them are beneficial.

In concise terms, children's emotional competencies form and develop as they grow up. Providing a stable environment and receiving warmth, care, and love from parents and educators help children's emotional competencies to develop. Knowledge of these factors can provide children with more opportunities to cultivate their emotional development and avoid the negative factors that affect their emotional competencies.

Emotional Competencies

Denham (1998) indicated that emotional understanding and emotion regulation are part of emotional competencies. Emotional understanding and emotion regulation were taught and guided in the study, so emotional understanding and emotion regulation are explained in the following sections.

Emotional Understanding

Saarni (2007) argued that children who understand more about their feelings are better able to express what they want and their goals, and can negotiate with others when dealing with conflicts. Understanding emotions and recognizing and identifying feelings in others are key components of children's social awareness (Denham & Weissberg, 2004). Children who have more emotional understanding develop positive peer relationships and make friends (Denham, McKinley, Couchoud, & Holt, 1990). The

development of emotional understanding and emotional responses influences the capacity to develop feelings, guilt, embarrassment, and pride (Saarni, 2007).

Children's emotional understanding gradually evolves into a more comprehensive understanding. Infants often cry to express what they need and show their feelings (O'Shea, 2004). Every time that babies cry, parents and caregivers respond to their needs, helping them to develop connections between their brain and feelings (O'Shea, 2004). Little by little, infants learn to use their brains to understand feelings and to think.

Children become interested in their emotions at two years of age (Denham & Weissberg, 2004). Children experience their own and others emotional expressions and assess them according to their knowledge of emotions (Denham & Weissberg, 2004). Below the age of five years, children can experience only one emotion at a time (Harter, 1998; Kostelnik et al., 2007). When children feel happy, they feel entirely happy. Moreover, young children's emotions change dramatically (Kostelnik et al., 2006). For instance, children cry if they fall down, but in the next minute, they smile, run to their caregiver, and ask for hugs. Denham and Weissberg (2004) indicated that preschoolers are capable of knowing how to elicit their basic feelings and to identify different negative feelings about themselves and others. For example, a little boy may be more angry than sad because he cannot get the candy from his mother.

During the preschool period, many individual differences in children's emotional competence become obvious (Denham, 1998). Early emotional development can significantly impact higher-level emotional competence in later years (Denham, 1998). For example, if children at age three are good at labeling emotions from drawings and matching these emotions to social situations, they can develop a better ability to explain

conflicting emotions later (Brown & Dunn, 1996). Thus, a child's emotional ability at age three is a predictor of their ability to handle more complex emotions later (Brown & Dunn, 1996).

By five or six years of age, children are able to have multiple feelings, which are part of similar emotional states (Wintrem & Vallance, 1994). For example, when a five-year-old boy plays on the playground, he might feel excited and happy. Children at age five also understand how to pretend to experience emotions. They may pretend to be happy when they received gifts even when they do not like the present (Denham, 1998).

Children under age 10 usually link their emotional states to their physical responses (Kostelnik et al., 2007). For example, if children feel unhappy or angry, they believe their feelings were caused by situations rather than their thought or interpretation. They do not understand that people can experience internal emotions and mask them externally (Kostelnik et al., 2007). Therefore, they may not detect others' feelings from others external expressions that might result in inappropriate responses and reactions (Kostelnik et al., 2007).

Emotion Regulation

Children with emotion regulation can manage their emotions under any condition and reduce the chance of externalized and disruptive disorders (Luby, 2005). Most children understand early on how to manage their emotions, which assists children in stabilizing emotion. Sarni (2007) stated that the ability to identify feelings and understand the causes of feelings is beneficial in coping with feelings that arise from

adverse circumstances. Communication skills and an understanding of feelings could help children explain their emotional states and further have power to control their emotions (Dunn, 1994).

Infants first understand how to modulate their intense emotions by leaving, making sounds, sucking, or even seeking support and comfort from caregivers (Garber & Dodge, 1991; Kostelnik et al., 2006; Saarni, 1999). Zambo and Hansen (2007) argued that children understand how to use an age-appropriate way to manage their emotions based on the quality of their attachment developed in their first three years of life. Babies feel secure and build trust with adults, which cause attachments to be strongly established between them and adults.

Emotion regulation occurs in the very early years of children and increasingly develops in preschool years (Dunn, 1994; Hyson, 2004). Additionally, emotion regulation does not only center on coping with negative feelings, but also on maintaining positive feelings (Denham, 1998; Hyson, 2004). Children at ages two and three have an increasing ability to not only control their emotions, but also to use others' emotions to meet their needs and influence their own emotions (Dunn, 1994). Increasing ability to control emotions can directly influence children's social development, such as interpersonal relationships.

As children mature in environments, such as kindergartens, they become more proficient in emotion regulation skills, which become more diverse and complex (Kostelnik et al., 2006). Garber and Dodge (1991) indicated that children's language ability and communication skills make children more familiar with managing their emotions. For example, words are used to solve problems and to modulate intense

emotions. As they get older, children's verbal, physical, and intellectual development utilizes their emotion regulation.

Hyson (2004) indicated that adult influence and peer impact also play a role in children's emotion regulation (Hyson, 2004). For example, children who receive more support from parents are able to generate more diverse coping strategies when facing stress and difficulties (Saarni, 1999). On the other hand, children who are raised by depressed parents or in dysfunctional families are likely to have more problems occur in their later lives (Saarni, 1999). In addition, gender, culture, and social competencies all influence children's coping efficacy (Saarni, 1999).

Saarni (2007) argued that scaffolding is the way for parents and educators to establish children's ability to engage in emotion regulation. Teaching children to use strategies, such as counting, breathing, and storytelling, is more appropriate than shaming and embarrassing them (Saarni, 2007). Moreover, providing children with a secure environment supports the development of emotion regulation. Hyson (2004) mentioned that a positive interpersonal environment for children can lead children to understand emotions, appropriately express feelings, and establish secure emotional surroundings.

Peers play an important role in influencing children to develop emotion regulation skills (Hyson, 2004). Apparently, children are not willing to play with a child who is not capable of managing feelings. Hyson (2004) suggested that early childhood practitioners should provide children with more opportunities to practice emotion regulation skills with peers, such as through pretend play. Children could practice expressing and managing their feelings through different activities which are led by educators (Garber & Dodge, 1991).

Strategies for Increasing Emotional Competence

A well developed child, not only performs well academically, but also has high emotional intelligence and social problem-solving skills (Goleman, 1995). When designing activities to guide children's emotional competence, school teachers need to be sensitive to children's needs and interests (Elias, 1997). Based on teaching styles and the strengths of teachers, developmental levels, needs and interests of students, and instructional goals, school teachers create activities and use strategies to enhance children's emotional competence (Elias, 1997).

Some useful and common strategies have been suggested for researchers and educators to use when designing lessons for children's emotional learning. Those strategies include (a) children's books, (b) group discussion, (c) role play, and (d) art work. Each strategy is explained in the following paragraphs.

Children's Books

The direct introduction of feelings might be difficult for children (Elias, 1997). Therefore, reading a well-chosen book about emotions to young children may be an indirect and effective approach to enable young children to more easily understand emotions (Elias, 1997; Hyson, 2004).

Picture books are good and productive recourses raising emotional topics for youngsters' learning (Elias, 1997; Wu, 2002). Children are encouraged to express their feelings by reading stories (Hendrick & Weissman, 2007). School teachers can use stories as well as props to help children share their concerns (Greenberg, 2005; Hendrick &

Weissman, 2007). Through the reading of stories, children can learn more about emotional skills and knowledge easily.

Group Discussion

Group discussion is a very basic technique among those working in teaching children about emotion (Elias, 1997). Students, organized into small groups or as a whole class, discuss one particular issue with school teachers. Issues might be real social situations or curriculum-driven topics (Elias, 1997). Through group discussion, children and teachers work on solutions, share their experiences, talk about possible results of problems, and practice solutions through role play (Elias, 1997). Greenberg (2005) indicated that using stories can encourage children to talk about emotion.

Coody (1997) indicated that follow-up discussions of books are effective learning opportunities for children. School teachers generate questions regarding books and naturally discuss these questions with children according to their reactions. Coody (1997) believed that the skill of asking questions is easy to foster, and helps children enhance comprehension and appreciation of books as well. Group discussion is productive for children's understanding and development of abilities.

Role Play

Role play is another method to promote children's emotional competence (Elias, 1997). Children, provided with different social situations, are given opportunities to

practice and rehearse. Elias (1997) stated that role play can foster children's ability to understand other people's feelings and thinking, form concepts about what to do or say, and use appropriate communication skills to build social relationships. Hendrick and Weissman (2007) further indicated that children can build empathy through role play. Young children might have difficulty in mastering emotional and social skills, because they lack opportunities to practice those skills (Elias, 1997). Therefore, working with youngsters can start with reading aloud and then acting out some parts of the story regarding emotional issues, providing children with a chance to practice emotional skills rather than understanding them (Elias, 1997; Hendrick & Weissman, 2007; Lin, 2006).

Art Work

Elias (1997) mentioned that children increase their understanding of emotions and learn how to appropriately express feelings through art work. Children are provided with different materials to use in releasing and relaxing their emotions (Hendrick & Weissman, 2007). Art work is regarded as an excellent guide for raising children's motivation in understanding and expressing emotions (Elias, 1997). All kinds of art materials may be used with different ages of children and even adults (Elias, 1997). Creative art work provides children with opportunities to portray their emotions and compare their work with others (Hyson, 2004).

Dramatic art can be used to guide not only children's social and emotional skills, but also their language and writing abilities (Elias, 1997). The topic of dramatic art can be established for emotional understanding (Elias, 1997). Children learn emotions

through facial expressions, voice tones, gestures, and postures, which make emotional knowledge and behaviors work together.

School teachers can develop different emotional learning activities for children. Story books, group discussions, role play, and art work all can be used and applied to education and curricula. Children increase understanding of emotion and emotional skills through different strategies.

Implications of Emotional Learning

Landy (2002) argued that children's behaviors are influenced by different aspects of emotional development and by parents, peers, and teachers. Outcomes of emotional development result in positive and negative behaviors, which are listed and explained below.

Positive Outcomes of Emotional Learning

Children with substantial emotional learning and emotional development have better emotional skills. When associating with others, emotional skills can help people acquire better interpersonal relationships and personality. The following section lists some examples of positive outcomes of emotional learning. These outcomes include social relatedness, empathy, and problem-solving skills.

Social Relatedness. Children who have a better understanding of emotions get along better with peers, because they appear friendly when interacting with people

(Denham et al., 1990). When children have the ability to adopt other people's opinions and perspectives, they are able to smoothly cope with difficulties. They seem to have less aggressive behaviors in social situations, and prefer to use more positive methods to deal with conflicts (O'Shea, 2004). Inviting friends to join the activity, treating other children nicely, and telling a joke might be characteristics of children who have well developed emotional awareness (Landy, 2002).

Empathy. Children who understand how to control their emotions can understand how to view things from other people's perspectives. They also provide others with caring and concern when those around are overwhelmed. A child who has good perspective-taking skills can differentiate self-emotion from the emotions of others. Thus, direct influence of others is minimized (Landy, 2002).

Problem-Solving Skills. Landy (2002) argued that children who function well with emotions can concentrate on studies more easily. Thus, a child's ability to regulate emotions is heavily related to cognition. In a word, children who have less difficulty dealing with emotional issues can also have better problem-solving skills, memory capacity, cognitive flexibility, and concentration (Landy, 2002).

Negative Results of Insufficient Emotional Learning

Goleman (1995) indicated that the number of children with emotional problems is increasing around the world and in different cultural groups. The factor influencing the increase in emotional problems is the provision of fewer emotional learning opportunities. Goleman (1995) mentioned that more children have deficiencies in emotional

development and competence, which creates more emotional disruptions among children. Most common emotional problems include emotional instability, anxiety, and depression. Each of these emotional deficiencies is explained in the following paragraphs.

Disorder of Emotional Stability. Infants gradually develop stable emotions as they mature (Greenspan & Wieder, 2006). If young children do not become stable by their preschool years, they begin to have more emotional difficulties and create disturbances at school and at home. With a lack of stable emotions, children may lose their attention for learning and playing, which influences their academic performance, social life, professional skills, and interpersonal relationships (Greenspan & Wieder, 2006). Questions about emotions are hard for young children to answer. If children are not able to deal with emotional problems, they may have a hard time dealing with frustrations, which leads to disruptive behaviors.

Anxiety. Children at different ages have different anxious expressions (Greenspan & Wieder, 2006). Infants and toddlers show anxiety when they fail to communicate or respond verbally. Symptoms of anxiety include avoidance, panic relations, excessive fearfulness, and worries (Greenspan & Wieder, 2006). Older children may have uncertain responses when they talk about anxiety (Greenspan & Wieder, 2006). They may even try to escape or become depressed. Under these circumstances, children are not capable of controlling anxiety, become too frightened to release anxious feelings, and may not be able to follow school schedules and activities.

Depression. Depressed young children appear to have negative play themes, negative self-evaluations, and insufficient confidence in interacting with friends (Luby, 2005). Children who deal with depression may have a loss of self-esteem (Sabatino,

Webster, & Vance, 2001; Thompson, Rudolph, & Henderson, 2004). Children feel helpless and lost because they cannot express their anger. Thus, depression results from anger (Thompson et al., 2004). Depressive symptoms are accompanied by unsuccessful interpersonal relationships and anxiety (Luby, 2005). These children seem to lose interest in knowing the world and frequently become tired all the time (Sabatino et al., 2001). Depressive children may be regressive in development due to unbalanced feelings and emotions (Luby, 2005; Sabatino et al., 2001).

Children's Picture Books in Emotional Learning

This study applied children's picture books to guide children's emotional understanding and emotion regulation. Therefore, the connection between children's picture books and emotional learning are demonstrated in the following sections: (a) values of children's books, (b) definitions of children's picture books, (c) picture books in emotional learning, and (d) applications of books in class.

Values of Children's Books

Marriott (1991) indicated that books can: (a) contribute to children's development, (b) raise children's motivations to learn, (c) cultivate children's language abilities, (d) benefit children's social experiences, and (e) cultivate children's aesthetic senses. Kiefer, Hepler, and Hickman (2007) mentioned that children's books provide children with

enjoyment, a narrative way of thinking, imagination, vicarious experience, insight into human behavior, and universality of experience.

Zambo and Hansen (2007) indicated that children from different cultural backgrounds have different ways to understand their world through language and literacy. Zambo and Hansen (2007) argued that emotional development is the foundation of learning, and children can use different kinds of literacy to establish emotional development, such as stories, songs, magazine, and so on. Thus, children's books are beneficial for children's growing and learning.

Definitions of Children's Picture Books

Children's books are based on children's experiences and understanding (Kiefer et al., 2007). Children's books can be classified according to many categorization systems. For example, children's books are categorized by either their format or their genre (Glazer, 2000). A children's book might be a concept book, a predictable book, a picture story book, an ABC book, a counting book, a participation book, a wordless picture book, a beginning reader picture book, an engineered book, or a baby/board book (Tunnell & Jacobs, 2000).

Russell (2005) indicated that most picture books focus on folktales, legends, myths, and animal stories. Glazer (2000) stated that children's picture books include: (a) a combination of illustrations and narrative, (b) a description of an event, (c) a depiction of how the character feels in a specific situation, and (d) a clearly defined plot, a problem that needs to be solved, and interrelationship with events. Kiefer et al. (2007) said that

picture books convey stories through words and pictures. The pictures provide readers with visions that help readers understand the stories, the development of the plot, the changing setting, and the expressions and actions of the characters (Kiefer et al., 2007).

Picture Books in Emotional Learning

Picture books are popularly used in Taiwanese research to guide children in learning emotions and solve related problems (Chen, 2000; Chen, 2004; Lin, 2006; Liu, 2001; Wu, 2000; Wu, 2004). Children learn emotions through stories, protagonists, drawings, and dialogs. Additionally, picture books cover different emotional topics, which can assist children in understanding different views of emotions (Dasho, Lewis, & Watson, 2001; Wu, 2002). Functions of children's picture books in children's learning encompass both prevention and cure and are extensively utilized in children's emotional learning (Liu, 2001). For example, when children are reluctant to share their emotional difficulties, books are good resources for leading them to share their experiences. Books help children become active and capable readers and learn more about interpersonal relationships, human values, and the experiences of being a part of a community (Dasho et al., 2001). Picture books can even cultivate children's social and problem-solving skills (Wu, 2002).

Books are useful materials for conveying emotional knowledge to young children (Jensen & Wells, 1979; Kostelnik et al., 2006). A good-quality children's book can address many of the issues experienced by children as they grow, learn, and live (Dasho et al., 2001). Children can think about these situations as they are provided by book

characters and learn about solutions to these issues. Reading books aloud is another way to invite all children to become involved in literature and discussion, regardless of their reading abilities (Dasho et al., 2001).

Caregivers ask children many questions related to books and take books as valuable illustrations of the introduction of emotions (Jensen & Wells, 1979; Kostelnik et al., 2006). Through books, children have an opportunity to understand different emotional expressions from pictures, to develop alternatives responses to different feelings and situations, and to name different feelings accurately (Jensen & Wells, 1979). Children's books demonstrate emotions actively and engagingly rather than according to complicated and abstract emotional terms.

Children, at the preschool age, have a great interest in reading books, especially those with animal characters (Jensen & Wells, 1979). Through books, children can experience and verbalize emotions, recognize emotional expressions from people's faces, appropriately respond to their feelings, increase emotional knowledge, receive encouragements when responding to negative emotions, and differentiate feelings for themselves and others (Jensen & Wells, 1979).

Liu (2001) argued that sometimes difficulty emerges when seeking to understand an individual's internal states, especially children, because they are still developing and shaping their minds. Moreover, sometimes adults easily overlook the importance of understanding their children's needs and lose opportunities to interact with children through communication (Liu, 2001). Children are easily trapped by their emotional disturbances and find it difficult to relieve them. Cheng (1999) indicated that story books

provide children with experiences, solutions, and strategies for dealing with negative feelings.

Children's emotional competencies are developed in children's early years, which can influence children's academic performance and personal relationships (Ghosn, 1999; Goleman, 1995). Books may be used not only to increase children's language, but also to support emotional learning (Ghosn, 1999; Wu, 2002). Children learn how to solve their individual problems and handle maturation through books (Coody, 1997). Children acquire emotional experiences and develop their emotional competencies through well-chosen books (Ghosn, 1999; Hyson, 2004).

Reading books related to emotions is effective in increasing children's emotional understanding and recognition (Glazer, 2000; Hyson, 2004). Children learn about an event experienced by protagonists in the book, and their feeling about the event (Glazer, 2000). Through children's books, children learn how to solve their individual problems and meet their growth needs (Coody, 1997). Some books focus on one particular emotion and show what causes protagonists to have this particular feeling and what their reactions and responses are when dealing with this feeling (Glazer, 2000).

Applications of Books in Class

Books have the power to influence children's behaviors, increase their self-understanding, and change their attitudes (Coody, 1997). Teachers are the best persons to convey knowledge to children through books, because they know each child's unique needs (Coody, 1997). Understanding children's needs and interests can help

teachers select appropriate books and make books become powerful and beneficial resources for children's management of their behaviors and attitudes (Coody, 1997).

As school teachers select picture books for the class, some principles need to be considered, such as physical characteristics, illustrations, language, range, and readability. A good book must be robust, because books are made for children to read. Books that are too delicate and fragile might easily fall apart or break shortly.

Further, Glazer (2000) listed four ways to select books that develop children's emotional growth: (a) feelings experienced by characters in books are natural and normal, (b) exploring feelings from different perspectives may be beneficial in naming emotions, (c) providing several solutions in books for dealing with particular feelings, and (d) many emotions exist in human beings, even the conflicting ones. These four ways provide early childhood professionals with a reference for considering the selection of books for children to learn about emotions.

In a word, books are useful and beneficial resources for children's emotional learning. When reading books, children gain exposure to captivating stories and amusing characters and the significant, particular meanings conveyed. For children, many difficult concepts and principles can be easily learned and understood through reading. Therefore, appropriately using books in curricula is beneficial in making complicated emotional terms easily understood.

Summary

Emotions are the center of children's social relationships, sense of self, mental health, and moral sensitivity, and connect children to the world in which they live and learn. Children's emotional development and individual emotional expressions are elements that professionals and parents can use to improve children's mental health and lives. The percentage of Taiwanese students dealing with emotional problems is increasing. The increasing number shows that the Taiwanese need to expend efforts and attention on improving students' mental health. Goleman (1995) argued that children with emotional competencies can reduce their risks of emotional problems and disturbances. Professionals and parents can work together to educate Taiwanese children and provide them with a more complete emotional learning and care to improve their lives.

Implementing emotional strategies and knowledge in regular education is essential. Emotional learning brings many benefits to children, such as reduction of emotional distress, promotion of emotional development, and even increases in academic achievement. At school, young children are often expected to have great academic performances at the expense of cultivating personality and temperament. Successful academic achievement is based on these fundamental emotional abilities. The result is that teaching young children to learn about emotions is crucial to assisting children in becoming well-balanced human beings.

Childhood is an important period in children's development. Children can make significant progress in different developmental tasks. Using this important period to assist

children in growing and learning is an important mission for early childhood professionals. Thus, teachers should be responsible for teaching children to recognize, label, and understand their emotions and feelings. Doing so can bring benefits to future work and study.

Books are the most popular teaching resources in class. Children's picture books may be used to help children increase their language ability and understand emotional issues. A great deal of research has indicated that children's picture books have an advantage in teaching children about their emotions and increase emotional competencies as well. Therefore, the use of children's books and related activities in regular education and the guiding of children's emotional development and emotional competencies are worth investigating.

Chapter 3

METHODOLOGY

This chapter presents the methodology applied in this study. The chapter addresses these topics: (a) research design, (b) participants, (c) assessment instruments, (d) implementation, (e) procedure, and (e) data collection and data analysis.

Research Design

This study was quasi-experimental, conducted between April 2007 and June 2007 and used naturally formed groups, such as a classroom, for participants. Participants were not randomly assigned to treatment groups. The investigator chose intact classes and applied treatments to each group, and then selected assessment instruments to conduct pre- and posttests and examined any different effects of children's books and extra activities on treatment groups. A pilot study (see Appendix A) was conducted to examine the process of applying the Emotion Recognition Questionnaire (ERQ) with Taiwanese 5- and 6-year-old children and avoid ceiling effects occurring in the study. A ceiling effect is an instrument threat, which causes the outcome score to be close to the highest score possible (Campbell & Stanly, 1963).

The three experimental conditions were: (a) Experimental Group One—children's picture books that relate to emotions, and related discussion as well as extra language activities that focus on English alphabets; (b) Experimental Group Two—children's

picture books, related discussions, and extra activities that related to emotions; and (c) the control group—picture books that do not relate to emotions with related discussion as well as extra language activities that focus on English alphabets.

Each of these three groups was given treatments, twice per week, forty minutes per session, for a total of eight weeks. In order to equally expose the three groups to the instructor's teaching, adding extra English alphabet activities was necessary to make the length of time for each treatment the same. Experimental Groups One and Two were given treatments at the same time of day, on different days, and Experimental Group One and the control group were given treatments at different times of days, but on the same day. For example, Experimental Groups One and Two were given treatments at 9:40 a.m., but Experimental Group Two was given treatments on every Monday, and Experimental Group One was given treatments on every Tuesday. Experimental Group One and the control group were given treatments on every Tuesday, but experimental group one was given treatments at 9:40 a.m., and the control group was given the treatment at 10:30 a.m. The purpose of the procedure was to make the investigator personally teach three treatment groups and reduce influences from different instructors.

The study procedure is exhibited in Figure 3.1. The order of the procedure was pre-test, different treatments applied to the three treatment groups, and posttest. The broad views of treatments and activities for the weeks of the study for each of the three groups are displayed in Appendix B.

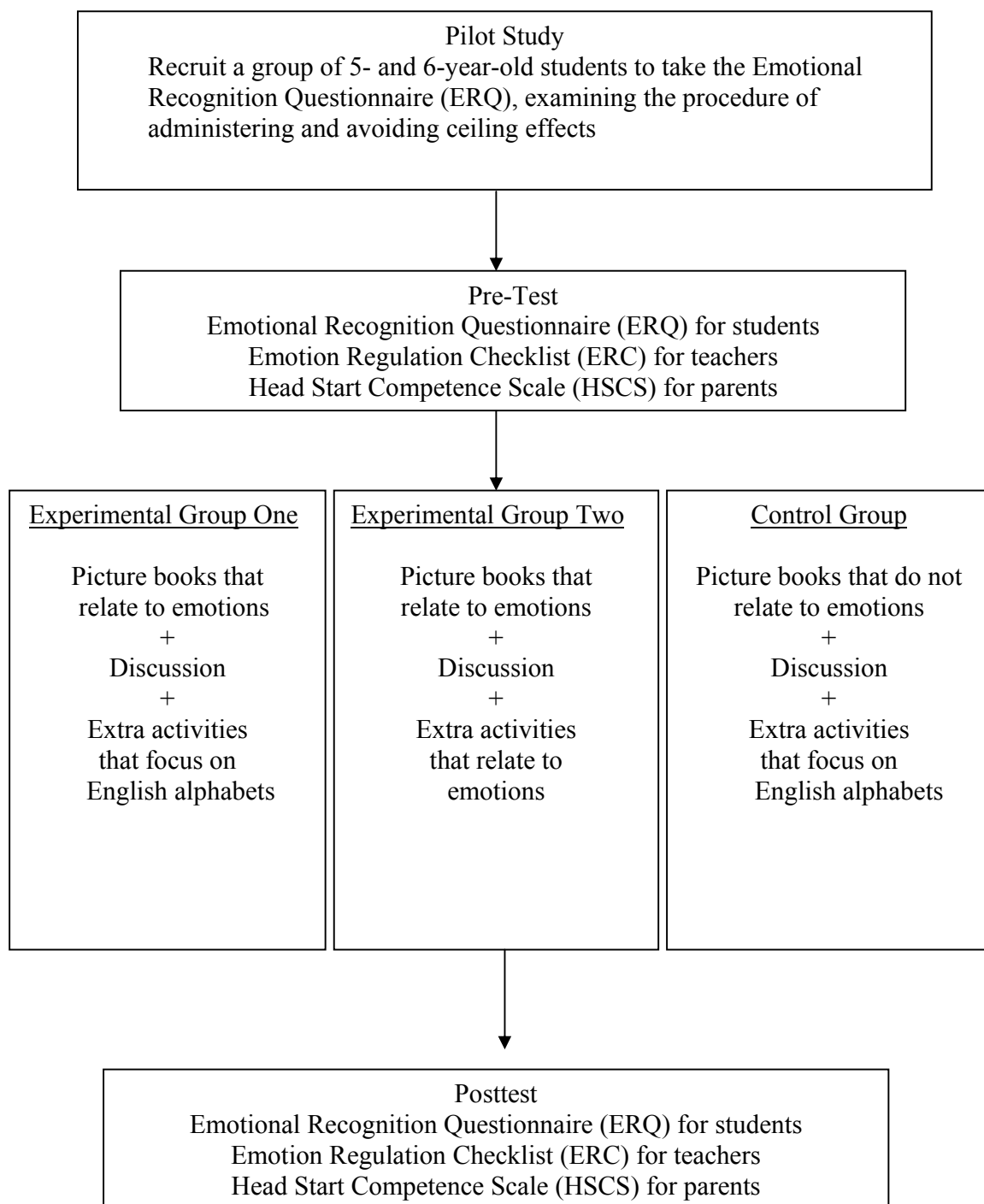


Figure 3.1: Study Procedure

Participants

The school recruited for the study was a public kindergarten in south Kaohsiung City, Taiwan. The total enrollment of the school was 144 Taiwanese students, which included eighty 5- and 6-year-olds and sixty-four 3- and 4-year-olds. There were four classes of 5- and 6-year-olds in the school, but one of them was an intervention class, which was excluded from the study. Therefore, the other three classrooms were recruited for this study and all parental permission for participating in this study was obtained. These three classes had 18, 18, and 23 students, respectively. During the eight-week lessons, only two students in the Experimental Group Two were absent for over 25% of the lessons due to sickness; otherwise, most students attended all lessons on time and there was no drop-out in these three treatment groups.

Three different treatments were randomly assigned to three classes. The classroom of Experimental Group One was composed of seven boys and 11 girls with an average age of 74.2 months. Eighty-nine percent of the children's mothers were Taiwanese and 11% of parents were divorced. Most of these parents (83%) completed high school or had a higher degree. Experimental Group Two was composed of 15 boys and eight girls with an average age of 72.6 months. Eighty-three percent of the children's mothers were Taiwanese and 4% of parents were single. Over half of these parents (65%) completed high school or had a higher degree. The control group was composed of 10 boys and eight girls with the average age 73.9 months. Eighty-seven percent of the children's mothers were Taiwanese. Most of these parents (83%) completed high school or had a higher degree. The investigator was the instructor of the three treatment groups.

The instructor had a Master of Education degree in Early Childhood Education and a Taiwanese kindergarten teaching certificate. She is familiar with teaching young children.

Assessment Instruments

Three assessments were administered in this study to measure the effects of treatments in the three treatment groups. The three assessments were the Emotional Recognition Questionnaire (ERQ), the Emotion Regulation Checklist (ERC), and the Head Start Competence Scale (HSCS)-Parent Version. Those assessments were separately distributed to children, teachers, and parents to measure children's emotional understanding and emotion regulation at pre- and posttests.

Emotional Recognition Questionnaire (ERQ)

The ERQ has been used to measure children's emotional understanding by labeling emotions in a variety of emotion-eliciting vignettes. The 16 emotion-eliciting vignettes depict each of four emotions (happiness, sadness, anger, and fear) selected from 30 emotion-eliciting vignettes developed by Ribordy, Camaras, Stefani, and Spaccarelli (1988). Vignettes from Ribordy et al. (1988) have been used in several studies to examine children's abilities to recognize emotions (Camras, Ribordy, Hill, Martino, Spaccarelli, & Stefani, 1988; Conduct Research Prevention Group, 1999; Dodge, Laird, Lochman, & Zeli, 2002; Garner, Jones, & Palmer, 1994; Pollak, Cicchetti, Hornung, & Reed, 2000). Further, the ERQ is one type of assessments that adopts parts of Ribordy's vignettes and

has been applied in studies to measure children's abilities to recognize emotion (Conduct Research Prevention Group, 1999; Dodge et al., 2002).

Ribordy et al. (1988) indicated that these vignettes have sufficient construct validity and have been appropriately employed in traditional developmental research and research related to deficits in recognizing emotion. The accuracy score reflects how many items a child answers correctly (Cronbach's $\alpha = .66$) (Conduct Research Prevention Group, 1999). Psychological measurements with reliability over Cronbach's α of .6 are acceptable (Sax, 1997). The correct scores for children's answers at pre-and posttests of this study are shown in Table 3-1.

Table 3-1

Summary of Reliability of ERQ

	Pre-test	Posttest
Number of Items	16	16
Number of Cases	59	59
Cronbach's Alpha	.70	.59

Before the research assistant started the ERQ, she needed to ascertain that each child could identify four drawings (Dodge et al., 2002). Therefore, a warm-up activity was needed. In the warm-up activity, the research assistant displayed four faces with four emotions (happiness, sadness, fear, and anger). The research assistant asked subjects to indicate the faces of four feelings that include happiness, sadness, anger, and fear. When they all correctly identified four faces, subjects started to answer the ERQ.

While the research assistant read stories, subjects were shown four drawings of facial expressions (happiness, sadness, fear, and anger) and were asked to indicate one of four drawings to represent the feeling elicited in each vignette (Conduct Research Prevention Group, 1999; Dodge et al., 2002). The gender of the drawing of the facial expression and stories matched the gender of the subject (Pollak et al., 2000; Ribordy et al., 1988). The subject was required to identify feelings in corresponding vignettes by pointing out faces or directly telling the answer (Conduct Research Prevention Group, 1999). Subjects who had correct answers received one point and those with incorrect and no answers received zero points (Dodge et al., 2002).

Since Ribordy et al. (1988) recruited American students to validate these vignettes, the investigator used three Taiwanese faculty members to examine whether the content was culturally appropriate. The three Taiwanese assistant professors were all in Departments of Early Childhood Education: Chih-Sheng Chen, Southern Taiwan University of Technology; Ya-Ling Chen, National Ping-Tung University of Education; and Tze-Kuang Lee, Tajen Taiwan University of Technology. These individuals served as a discipline, expert panel and were asked to assess whether the ERQ is culturally appropriate. Based on feedback from the expert panel, the investigator created the ERQ-Revision (see Appendix C) and ERQ-Revision-Mandarin (ERQ-R-M).

Table 3-2 presents the results of the review of the ERQ-Mandarin version by Taiwanese experts. The names of the experts and the associated contents of their revisions appear in the table.

Table 3-2

The Result of Review by Taiwanese Experts

Name	Revision
Chih-Sheng Chen	Item 6: Change an ashtray to a vase. Item 10: Change a Valentine's card to stickers.
Ya-Ling Chen	Revise Mandarin phrases, such as Title and Item 14, to make the translation fluent.
Tze-Kuang Lee	Revise Mandarin phrases, such as Items 4, 5, 6, 7, and 9, to make the translation fluent.

Dr. Wei-Fan Chen is an Assistant Professor of Information Sciences and Technology at The Pennsylvania State University Wilkes-Barre and proficient in English and Mandarin. Dr. Chen was recruited to back-translate and develop the ERQ-Revision-Mandarin-English (ERQ-R-M-E).

One recruited graduate student in English at The Pennsylvania State University, Rosalyn M. Collings, examined the similarity of interpretability between the ERQ and ERQ-R-M-E (Wang, Lee, & Fetzer, 2006). Similarity of interpretability means that the ERQ and the ERQ-Revision-Mandarin-English (ERQ-R-M-E) both can generate the same answers even though the words are different (Sperber, Devellis, & Boehlecke, 1994). Revisions to the ERQ-R-M items occurred when Ms. Collings found that ERQ-R-M-E did not render sufficiently accurate meanings (Wang et al., 2006). After comparing the ERQ-R-E with the ERQ-R-M-E, Ms. Collings only found a slight difference in the pronoun in Item 1 that needed to be revised. The investigator rechecked Item 1 in the ERQ-R-M and ascertained that the translation was correct.

Emotion Regulation Checklist (ERC)

The Emotion Regulation Checklist (ERC) (Shields & Cicchetti, 1995) is a 24-item checklist administered to teachers, school counselors, and parents to assess 5- to 12-year-old children's emotion regulation. Items are scored on a 4-point Likert scale (1=Never; 2=Sometimes; 3=Often; 4=Almost always). The ERC has been used in several studies (Chang, Schwartz, Dodge, & McBride-Chang, 2003; Schwartz & Proctor, 2000; Shields & Cicchetti, 1997, 1998, 2001).

The ERC has good content validity (Denham, 2005). This measure yields two subscales: Negativity/Lability (dysregulation) and Emotion Regulation. The Negativity/Lability (dysregulation) scale contains 15 items (Cronbach's alpha = .96) that refer to the child's tendency to become distressed (Shields & Cicchetti, 1997). The Regulation scale contains eight items (Cronbach's alpha = .83) that refer to the child's ability to modulate emotional reactivity under a variety of conditions (Shields & Cicchetti, 1997). The reliability of the overall score at pre- and posttests of the ERC is listed in Table 3-3.

Table 3-3

Summary of Reliability of ERC

	Pre-test	Posttest
Number of Items	23	23
Number of Cases	59	59
Cronbach's Alpha	.84	.71

In this study, the ERC is for school teachers to use in evaluating children's emotion regulation. Chang et al. (2003) have modified the ERC to a 7-point Likert scale ranging from 1 (never true of child) to 7 (almost always true of child) and translated it into Chinese for use with children between the ages of 3 and 6 years in Hong Kong, so this Chinese ERC is taken as a reference, with further revision of the language and words into a Mandarin ERC, to be used in the study. The internal consistency reliability of the Chinese ERC is .69 (Chang et al., 2003).

Simultaneously with the study-based translation of the ERC, a Taiwanese counselor, Chia-May Dougherty, translated the ERC. A completed comparison ensured the accuracy of the translation of the ERC. Discrepancies were found in Items 9, 11, 17, 18, and 21, which were all different usages of Mandarin phrases between Ms. Dougherty's translation and the Hong Kong version. After the investigator discussed these with Ms. Dougherty, further revision of those items led to the creation of the ERC-Mandarin (ERC-M). Dr. Wei-Fan Chen conducted the back-translation and took responsibility for it, resulting in the adopted the final version of the ERC-Mandarin-English (ERC-M-E) (see Appendix D).

Ms. Collings examined the similarity of interpretability between the ERC and ERC-M-E (Wang et al., 2006). Revision of the ERC-M items occurred when the English speaker found that ERC-M-E did not sufficiently render accurate meanings of the ERC items (Wang et al., 2006). After comparing the ERC with the ERC-M-E, the items needing revision in the ERC-M included Items 5 and 8. For example, words in Items 5 and 8 of the ERC-M-E were not similar to words in Items 5 and 8 of the ERC.

Rechecking the ERC-M and correcting the differences ensured the reliability of the instrument.

Head Start Competence Scales (HSCS)-Parent Version

The Head Start Competence Scale (HSCS)-Parent Version (see Appendix E) is a 16-item, parent-report of measures of children's social and emotional skills that reflect children's emotion regulation and emotional understanding (Domitrovich, Cortes, & Greenberg, 2001). Items are rated on a 4-point scale Likert ranging from 1 (not at all well) to 4 (very well).

The HSCS-Parent Version has been used in research to examine children's emotion regulation and interpersonal relationships and shows a sufficient internal consistency scale (Cronbach's $\alpha = .74$) (Domitrovich, Cortes, & Greenberg, in press). Further, items relating to problem-solving skills and behavior regulation, assessed through Cronbach's alpha, were .83, and items relating to emotional knowledge, assessed through Cronbach's alpha, were .74 (Domitrovich et al., 2001). The reliability of the subscale for emotional understanding and emotion regulation of the HSCS-P at pre-and posttests in this study is listed in Table 3-4.

Table 3-4

Summary of Reliability of HSCS-P

	Pretest		Posttest	
	Emotional Understanding	Emotion Regulation	Emotional Understanding	Emotion Regulation
Number of Items	8	8	8	8
Number of Cases	59	59	59	59
Cronbach's Alpha	.83	.85	.78	.83

The HSCS-Parent Version was translated by a Taiwanese professor of Early Childhood Education at National Ping Tung University of Education, Shu-Min Chen, and a Taiwanese graduate student at the Pennsylvania State University, Ya-Lun Tsao. A comparison of two translation versions was made and slight discrepancies occurred in the translation of Items 12, 15, and 16. After rechecking and discussing these with Dr. Chen and Ms. Tsao, the HSCS-Parent Version-Mandarin (HSCS-Parent Version-M) was created. Then, Dr. Wei-Fan Chen took responsibility for back-translation, resulting in the HSCS-Parent Version-Mandarin-English (HSCS-Parent Version-M-E).

Ms. Collings examined the HSCS-Parent Version-E and HSCS-Parent Version-M-E for similarity of interpretability (Wang et al., 2006). If Ms. Collings found any items in HSCS-Parent Version-M-E that did not sufficiently render meanings of the HSCS-Parent Version items (Wang et al., 2006), the investigator rechecked and revised the items in the HSCS-Parent Version-M. After comparing HSCS-Parent Version-E and HSCS-Parent Version-M-E, differences in words were found in Items 1 and 9. For example, the translation of Item 1 needed the addition of “sisters,” and therefore required

the addition of the word “sister” in the HSCS-Parent Version-M. Additionally, revision of Item 9 on the HSCS-Parent Version-M was required due to differences found in words in Item 9 of the HSCS-Parent Version-E and the HSCS-Parent Version-M-E.

In summary, three assessments, ERQ, ERC, HSCS-Parent Version, all demonstrated good content validity and reliability and have been used in different studies to measure emotional competence. These three assessments were specifically translated for this study and were then translated by other language experts into Mandarin—these versions were utilized for this research.

Implementation

Implementations for this study included: (a) children’s picture books, (b) group discussion, and (c) activities that focus on emotional competence and language.

Books

Two sets of children’s picture books were used in the study. Each set of books separately included 16 books. One set of children’s books (children’s picture books A1-A16) were used with Experimental Groups One and Two to enhance children’s emotional understanding and emotion regulation (see Appendix F). Another set of books (children’s picture books B1-B16) were used with the control group to help children discuss books, but these books were not related to emotions (see Appendix G).

The investigator was the instructor for the three treatment groups. Children in Experimental Groups One and Two were taught to recognize the facial expression of the target feeling, understand the causes of a character's feeling, and learn how to manage the target feeling through the books. Children in the control group were read books regarding animals, which do not relate to emotions.

The selection of all books for Experimental Groups One and Two met age-appropriate requirements and was based on several Taiwanese and U.S. resources for allowing children to learn emotions. The supporting resources include Taiwanese studies that have already used certain books to cultivate children's emotional development, comments from the Children's Comprehensive Literature database at the Penn State library, recommendations and reviews of books listed on Taiwanese and U.S. websites for people looking for appropriate books on emotional learning, recommendations for selecting books on emotions from U.S. emotional learning programs, such as Preschool Promoting Alternative Thinking Strategies (Preschool PATHS), and books specifically created for children's emotional learning by psychologists or counselors.

The investigator used many resources to ascertain that each book was appropriate for this study. This study used the following books cited in Chen (2004) to teach children to recognize and manage feelings: *What Makes Me Happy?* (Liu, 2003), *Spit the Seeds* (Lee, 2001), *The Crocodile and the Dentist* (Gomi, 1994), and *Jessica and the Wolf: A Story for Children Who Have Bad Dreams* (Huang, 1998). Chiou (2005) recommended *When Sophie Gets Angry-Really, Really Angry* (Li, 2001) and *I've become a fire-breathing dragon* (Lai, 1996) as books related to anger. The *Horn Book Guide* (1992, 2000, 2002, 2003) indicated that two series of books have been all specifically created for

educators to help children deal with feelings (cited in *Children's Literature Reviews, n.d.*) such as the series *Dealing With Feelings-I Am Excited* (Lin, 2003a), *I Am Furious* (Lin, 2003b), and *I Am Scared* (Lin, 2003c), and the series *The Way I Feel-When I Feel Sad* (Huang, 2005a), *When I Feel Angry* (Tsai, 2005), and *When I Feel Scared* (Huang, 2005b). Additionally, a book like *Five Minutes Peace* (Li, 1999) was selected based on the recommendation in the Preschool PATHS manual for the feeling of excitement and *I'll Always Love You* (Chao, 1999), and *Why So Sad, Brown Rabbit* (Chen, 2002) were selected for the feeling of sadness. Denham (1995) indicated that children feel happy when they receive birthday presents, so the book *Happy Birthday Davy* (Lai, 2001) was chosen to let children share the feeling of happiness.

The topics of books in the control group were all about animals and a series called *Kiss Natural*. The topic of animals was chosen because it involved little discussion of emotions.

Discussion

Questions for discussion in Experimental Groups One and Two focused on emotional understanding and emotion regulation, while discussions in the control group focused on animals. Children learned the differences in the facial expressions for certain feelings and understood the reasons for their feelings through group discussion.

Additionally, the investigator cited an emotion from the books and allowed children to think about how to solve emotional issues and manage feelings through discussion.

Taking the book *When Sophie Gets Angry-Really Really Angry* (Li, 2001) as an example,

the investigator asked the following questions: (a) What is happening on this page? (b) Why was Sophie angry? Please point out the changes on Sophie's angry face (Eyes, eyebrows, mouths, nose, and ears). (c) When you feel angry, what does your angry face look like? (d) What are the differences in facial expressions of your angry face and sad face? (e) Have you ever been angry like Sophie? Please share with me your experiences of being angry. (f) What makes you feel angry?

Questions for generating strategies for coping with emotional situations included:

(a) When Sophie is angry, what would you do to her (physical)? (b) When Sophie is angry, what would you say to her (verbal)? (c) When Sophie is angry, how would you help her be not so angry (help)? (d) When Sophie is angry, what would you give her (material)? (Denham, 1998).

Moreover, questions for the control group were related to animals, ecology, behavior, physical description, and the life cycle. Using the book *Koala* (Wang, 2000b) as an example, the investigator asked the following questions: (a) Guess, where do Koalas live? (b) What is the koala's favorite food? (c) How does a koala mother feed her children? (d) Have you seen koalas? Where did you see them?

In sum, books for Experimental Groups One and Two focused on emotional understanding and emotion regulation and have been previously used in studies or had been recommended by well-known organizations. Books for the control group concentrated on animals and did not relate to emotion.

Activities

This study used two sets of activities and each set included 16 sessions. The investigator was the instructor in all activities. Activities for Experimental Group One and the control group focused on English alphabets, and activities for Experimental Group Two concentrated on enhancing children's emotional understanding and emotion regulation.

All 16 sessions in Experimental Group Two focused on emotional understanding and emotion regulation. Using the topic of happiness as an example, the first two sessions focused on understanding happiness and the following two sessions taught children how to manage excitement. Subsequent lessons followed this pattern but with different topics (sadness, anger, and fear). Moreover, the strategies for activities in the first two sessions on emotional understanding were art work and then puppets, which alternated every other session for the remaining sessions.

Table 3-5 presents the contents of activities for Experimental Group Two. All sessions and activities for Experimental Group Two, time and procedures appear in the table.

Table 3-5

Contents of Activities for the Total Weeks for Experimental Group Two

Session	Activity	Time	Procedure
Session 1	Activity A1: Emotional understanding (Happy) –Art Work	20 minutes	The instructor asked children to draw happy faces and experiences of being happy.
Session 2	Activity A2: Emotional understanding (Happy) –Puppet	20 minutes	The instructor asked students to put eyes, nose, mouth, and ears on a puppet with a blank face and make the puppet have a happy face. Used puppets to encourage children to discuss what makes them feel happy and shared the previous day's drawings.
Session 3	Activity A3: Emotion Regulation (Excited) –Art Work	20 minutes	The instructor asked children to draw a picture of themselves as the character in the story, showing how they would deal with the emotional situations presented in the story and how they manage feelings of excitement.
Session 4	Activity A4: Emotion Regulation (Excited) –Puppet	20 minutes	The teacher presented children with several short stories regarding excitement through puppet plays, and asked children to generate strategies for coping with the emotional situations presented in the stories.
Session 5	Activity A5: Emotional understanding	20 minutes	The instructor asked children to draw sad faces and experiences of being sad.

	(Sad) –Art Work		
Session 6	Activity A6: Emotional understanding (Sad) –Puppet	20 minutes	The instructor asked students to put eyes, nose, mouth, and ears on a puppet with a blank face and make the puppet have a sad face. Used puppets to encourage children to discuss what makes them feel sad and shared the previous day’s drawings.
Session 7	Activity A7: Emotion Regulation (Sad) -Art Work	20 minutes	The instructor asked children to draw a picture of themselves as the character in the story, showing how they would deal with the emotional situations presented in the story and how they manage feelings of sadness.
Session 8	Activity A 8: Emotion Regulation (Sad) –Puppet	20 minutes	The instructor presented children with several short stories regarding sadness through puppet plays, and asked children to generate strategies for coping with the emotional situations presented in the stories.
Session 9	Activity A9: Emotional understanding (Angry) -Art Work	20 minutes	The instructor asked children to draw angry faces and experiences of being angry.
Session 10	Activity A10: Emotional understanding (Angry)–Puppet	20 minutes	The instructor asked students to put eyes, nose, mouth, and ears on a puppet with a blank face and make the puppet have an angry face. Used puppets to encourage children to discuss what makes them feel angry and shared the previous day’s drawings.
Session 11	Activity A11:	20 minutes	The instructor asked children to draw a picture of

	Emotion Regulation (Angry)-Art Work		themselves as the character in the story, showing how they deal with the emotional situations presented in the story and how they manage feelings of anger.
Session 12	Activity A 12: Emotion Regulation (Angry) –Puppet	20 minutes	The instructor presented children with several short stories regarding anger through puppet plays, and asked children to generate strategies for coping with the emotional situations presented in the stories.
Session 13	Activity A 13: Emotional understanding (Scared)-Art Work	20 minutes	The instructor asked children to draw scared faces and experiences of being scared.
Session 14	Activity A14: Emotional understanding (Scared)–Puppet	20 minutes	The instructor asked students to put eyes, nose, mouth, and ears on a puppet with a blank face and make the puppet have a scared face. Used puppets to encourage children to discuss what makes them feel scared and shared the previous day’s drawings.
Session 15	Activity A15: Emotion Regulation (Scared) -Art Work	20 minutes	The instructor asked children to draw a picture of themselves as the character in the story, showing how they deal with the emotional situations presented in the story and how they manage feelings of fear.
Session 16	Activity A 16: Emotion Regulation (Scared) –Puppet	20 minutes	The instructor presented children with several short stories regarding fear through puppet plays, and asked children to generate strategies for

			coping with the emotional situations presented in the story.
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The extra activities for Experimental Group One and the control group related to English alphabets. The contents of activities for Experimental Group One and the control group appear in Table 3-6. This table includes all sessions and activities for Experimental Group One and the control group, time and procedures for Experimental Group One and the control group.

Table 3-6

Contents of Activities for the Total Weeks for Experimental Group One and Control Group

Session	Activity	Time	Procedures
Session 1	Activity A1: Language Activity	20 minutes	The instructor taught children alphabet “A” and three English vocabulary words, “apple”, “airplane”, and “alarm clock”. Children practiced pronouncing “A” and three English vocabulary words with the instructor.
Session 2	Activity A2: Language Activity	20 minutes	The instructor practiced alphabet “A” and three English vocabulary words again. Then, alphabet “A” worksheets were distributed to children for coloring.
Session 3	Activity A3: Language Activity	20 minutes	The instructor taught children alphabet “B” and three English vocabulary words, “bicycle”, “bird”, and “boy”. Children practiced pronouncing “B” and three English vocabulary words with the instructor.
Session 4	Activity A4:	20 minutes	The instructor practiced alphabet “B” and three

	Language Activity		English vocabulary words again. Then, alphabet “B” worksheets were distributed to children for coloring.
Session 5	Activity A5: Language Activity	20 minutes	The instructor taught children alphabet “C” and three English vocabulary words, “cat”, “cow”, and “candy”. Children practiced pronouncing “C” and three English vocabulary words with the instructor.
Session 6	Activity A6: Language Activity	20 minutes	The instructor practiced alphabet “C” and three English vocabulary words again. Then, alphabet “C” worksheets were distributed to children for coloring.
Session 7	Activity A7: Language Activity	20 minutes	The instructor taught children alphabet “D” and three English vocabulary words, “dog”, “doll”, and “desk”. Children practiced pronouncing “D” and three English vocabulary words with the instructor.
Session 8	Activity A 8: Language Activity	20 minutes	The instructor practiced alphabet “D” and three English vocabulary words again. Then, alphabet “D” worksheets were distributed to children for coloring.
Session 9	Activity A9: Language Activity	20 minutes	The instructor taught children alphabet “E” and three English vocabulary words, “egg”, “elephant”, and “eyes”. Children practiced pronouncing “E” and three English vocabulary words with the instructor.
Session 10	Activity A10: Language Activity	20 minutes	The instructor practiced alphabet “E” and three English vocabulary words again. Then, alphabet “E” worksheets were distributed to children for

			coloring.
Session 11	Activity A11: Language Activity	20 minutes	The instructor taught children alphabet “F” and three English vocabulary words, “frog”, “fruit”, and “friend”. Children practiced pronouncing “F” and three English vocabulary words with the instructor.
Session 12	Activity A 12: Language Activity	20 minutes	The instructor practiced alphabet “F” and three English vocabulary words again. Then, alphabet “F” worksheets were distributed to children for coloring.
Session 13	Activity A 13: Language Activity	20 minutes	The instructor taught children alphabet “G” and three English vocabulary words, “girl”, “glasses”, and “goat”. Children practiced pronouncing “G” and three English vocabulary words with the instructor.
Session 14	Activity A14: Language Activity	20 minutes	The instructor practiced alphabet “G” and three English vocabulary words again. Then, alphabet “G” worksheets were distributed to children for coloring.
Session 15	Activity A15: Language Activity	20 minutes	The instructor taught children alphabet “H” and three English vocabulary words, “horse”, “house”, and “head”. Children practiced pronouncing “H” and three English vocabulary words with the instructor.
Session 16	Activity A 16: Language Activity	20 minutes	The instructor practiced alphabet “H” and three English vocabulary words again. Then, alphabet “H” worksheets were distributed to children for coloring.

Procedures

Procedures for each group are listed in the following tables. Because the procedures for each group were repeated with the other three feelings, only the procedures for happiness are demonstrated in the following tables. The procedures were repeated with the other three feelings.

Table 3-7 displays four sessions on the emotional understanding of happiness, the emotion regulation of excitement, types of activities, time, and contents of procedures for Experimental Group One. Descriptions of the entire treatments appear in the following table.

Table 3-7

Procedure of Activities for Experimental Group One

Topic	Activity	Time	Procedure
Session 1: Emotional Understanding- Happy	Book and discussion A1	9:40 a.m.-10:00 a.m., Tuesday	Children finished their morning meeting with the school principal and returned to their classroom. After a restroom break and a drink of water, children started their learning. The instructor arranged children in a circle and started to read the story <i>What Makes Me Happy?</i> (Liu, 2003). The instructor asked children questions regarding happiness based on the story book. Examples of questions included what makes the character feel happy? When the character feels happy, what are facial features on the character's happy face?

			Could you share your experiences of being happy with us? and so on.
	One extra language activity	10:00 a.m.-10:20 a.m., Tuesday	After the story time and group discussion were finished, the teacher taught children an English alphabet “A” and three English vocabulary words, “apple”, “airplane”, and “alarm clock”.
Session 2: Emotional Understanding- Happy	Book and discussion A2	9:40 a.m.-10:00 a.m., Friday	Children finished their morning meeting with the school principal and returned to the classroom. After a restroom break and a drink of water, children started their learning. The instructor arranged children in a circle and started to read the story <i>Happy Birthday, Davy</i> (Lai, 2001). The instructor asked children questions regarding happiness based on the story book. Examples of questions include: What makes the character feel happy? When the character feels happy, what are facial features on the character’s happy face? Could you share your experiences of being happy with us? and so on.
	One extra language activity	10:00 a.m.-10:20 a.m., Friday	After the story time and group discussion were finished, the instructor practiced alphabet “A” and three English vocabulary words again. Then, alphabet “A” worksheets were distributed to children for coloring.
Session 3: Emotional	Book and discussion A3	9:40 a.m.-10:00	Children finished their morning meeting with the principal and returned to the classroom.

Regulation- Excitement		a.m., Tuesday	After a restroom break and a drink of water, children started their learning. The instructor arranged children in a circle and starts to read the story <i>I Am Excited</i> (Lin, 2003a). The instructor asked children questions regarding the feeling of excitement based on the story book. Examples of questions include: What makes the character feel excited? When the character feels excited, what do the character act out and what are the facial features on the excited face? Please share with us, how you manage excitement. If your friend is excited in the classroom and makes you feel uncomfortable, how you help him/her calm down, and so on.
	One extra language activity	10:00 a.m.-10:20 a.m., Tuesday	After the story time and group discussion were finished, the instructor taught children alphabet “B” and three English vocabulary words, “bicycle”, “bird”, and “boy”. Children practiced pronouncing “B” and three English vocabulary words with the instructor.
Session 4: Emotional Regulation- Excitement	Book and discussion A4	9:40 a.m.-10:00 a.m., Thursday	Children finished their morning meeting with the school principal and return to their classroom. After a restroom break and a drink of water, children started their learning. The instructor arranged children in a circle and started to read the story <i>Five Minutes Peace</i> (Li, 1999). The instructor asked children questions

			regarding excitement based on the story book. Examples of questions include: What makes the character feel excited? When the character feels excited, what does the character act out? Could you share with us how you help the story character calm down? and so on.
	One extra language activity	10:00 a.m.-10:20 a.m., Thursday	After the story time and group discussion were finished, the instructor practiced alphabet “B” and three English vocabulary words again. Then, alphabet “B” worksheets were distributed to children for coloring.

Table 3-8 shows four sessions on the emotional understanding of happiness, the emotion regulation of excitement, types of activities, time, and contents of procedures for Experimental Group Two. A description of the entire treatments appears in the table.

Table 3-8

Procedure of Activities for Experimental Group Two

Topic	Activity	Time	Procedure
Session 1: Emotional Understanding Happy	Book and discussion A1	9:40 a.m.-10:00 a.m. Monday	Children finished their morning meeting with the school principal and return to their classroom. After a restroom break and a drink of water, children started their learning. The instructor arranged children in a circle and started to read the story <i>What Makes Me Happy?</i> (Liu, 2003). The instructor asked

			<p>children questions regarding happiness based on the story book. Examples of questions included what makes the character feel happy? When the character feels happy, what are facial features on the character's happy face? Could you share your experiences of being happy with us? and so on.</p>
	Activity A1 : Art work	10:00 a.m.-10:20 a.m. Monday	<p>After finishing reading the story and group discussion, the instructor distributed papers to students and encouraged them to draw experiences of being happy and reminded them their characters needed to have happy faces.</p>
Session 2: Emotional Understanding Happy	Book and discussion A2	9:40 a.m.-10:00 a.m. Wednesday	<p>Children finished their morning meeting with the school principal and returned to the classroom. After a restroom break and a drink of water, children started their learning. The instructor arranged children in a circle and started to read the story <i>Happy Birthday, Davy</i> (Lai, 2001). The instructor asked children questions regarding happiness based on the story book. Examples of questions include: What makes the character feel happy? When the character feels happy, what are facial features on the character's happy face? Please share your experiences of being happy with us, and so on.</p>
	Activity A2: Puppet	10:00 a.m.-10:20	<p>After finishing the story and group discussion, the instructor showed a puppet with a blank</p>

		a.m. Wednesday	face to the children. The instructor asked students to come up and chose appropriate eyes, nose, mouth, ears, to put on the blank face, and made the puppet have a happy face. Then, children could directly share experiences of being happy or previous days' drawings of their experiences of being happy with everybody.
Session 3: Emotional Regulation Excitement	Book and discussion A3	9:40 a.m.-10:00 a.m. Monday	Children finished their morning meeting with the principal and returned to the classroom. After a restroom break and a drink of water, children started their learning. The instructor arranged children in a circle and starts to read the story <i>I Am Excited</i> (Lin, 2003a). The instructor asked children questions regarding the feeling of excitement based on the story book. Examples of questions include: What makes the character feel excited? When the character feels excited, what do the character act out and what are the facial features on the excited face? How do you manage excitement? If your friend is excited in the classroom and makes you feel uncomfortable, how do you help him/her calm down, and so on.
	Activity A3: Art Work	10:00 a.m.-10:20 a.m.	After reading the story and group discussion, the instructor distributed worksheets to children. Children were asked to help the story character

		Monday	solve his/her emotional problems and provided the story character suggestions for managing his/her emotions.
Session 4: Emotional Regulation Excitement	Book and discussion A4	9:40 a.m.-10:00 a.m. Wednesday	The instructor arranged children in a circle and started to read the story <i>Five Minutes Peace</i> (Li, 1999). The instructor asked children questions regarding the feeling of excitement based on the story book. Examples of questions include: What makes the character feel excited? When the character feels excited, what does the character act out? How do you help the story character calm down and so on.
	Activity A4: Puppet	10:00 a.m.-10:20 a.m. Wednesday	After reading the story and group discussion, the instructor used puppets to role play three stories and asked children to generate strategies for coping with the emotional situations presented in the story. For example, a puppet dog said his brother is a troublemaker, and can not play nicely for more than five minutes. Yesterday, his littler brother kept bothering him and ruined the puppet dog's drawing, and even broke the puppet dog's favorite toys. The puppet dog loves his brother and plays with him, but sometimes his brother cannot play patiently with him, which makes the puppet dog feel sad, so he hopes to help his brother. The instructor asked children how the puppet dog

			helps his brother manage his emotion. The other two stories included how to help twins not to get too excited at their birthday party and how to help the puppet monkey play nicely on the playground with other friends rather than running around without any friends.
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Table 3-9 displays four sessions, types of activities, time, and contents of procedures for the control group. The table includes descriptive details of the treatments for the control group.

Table 3-9

Procedure of Activities for Control Group

Topic	Activity	Time	Procedure
Session 1: Emotional Understanding- Happy	Book and discussion B1	10:30 a.m.-10:50 a.m. Tuesday	After a restroom break and a drink of water, children started their learning. The instructor arranged children in a circle and started to read the story <i>Lion</i> (Li, 1996). The instructor asked children questions regarding lions. Examples of questions include: What do lions eat? Where do they live? What are the differences in appearances between male lions and female lions?
	One extra language activity	10:50 a.m.-11:10 a.m.	After the story time and group discussion were finished, the teacher taught children an English alphabet "A" and three English vocabulary words,

		Tuesday	“apple”, “airplane”, and “alarm clock”.
Session 2: Emotional Understanding- Happy	Book and discussion B2	10:30 a.m.- 10:50 a.m. Friday	After a restroom break and a drink of water, children started their learning. The instructor arranged children in a circle and started to read the story <i>Human’s best friends-Dogs</i> (Liu & Wang, 2004). The instructor asked children questions regarding dogs. Examples of questions include: Why do people love dogs? How do you feed and care for dogs? How are dogs trained to help people with special needs? Could you share your experiences of feeding dogs?
	One extra language activity	10:50 a.m.-11:10 a.m. Friday	After the story time and group discussion were finished, the instructor practiced alphabet “A” and three English vocabulary words again. Then, alphabet “A” worksheets were distributed to children for coloring.
Session 3: Emotion Regulation Excitement	Book and discussion B3	10:30 a.m.-10:55 a.m. Tuesday	After a restroom break and a drink of water, children started their learning. The instructor arranged children in a circle and started to read the story <i>Dragonfly</i> (Sun, 1996). The instructor asked children questions regarding dragonflies. Examples of questions included: how do dragonflies fly? How well do they see? How many kinds of dragonflies are there?
	One extra language activity	10:50 a.m.-11:10 a.m.	After the story time and group discussion were finished, the instructor taught children alphabet “B” and three English vocabulary words,

		Tuesday	“bicycle”, “bird”, and “boy”. Children practiced pronouncing “B” and three English vocabularies with the instructor.
Session 4: Emotion Regulation Excitement	Book and discussion B4	10:30 a.m.- 11:10 a.m. Friday	After a restroom break and a drink of water, children started their learning. The instructor arranged children in a circle and started to read the story <i>Paradise fish</i> (Wang, 1996). The instructor asked children questions regarding paradise fish. Examples of questions included: How do people feed paradise fish? Can two paradise fish be put in one tank? Have you ever had paradise fish as pets?
	One extra language activity	10:50 a.m.-11:10 a.m. Friday	After the story time and group discussion were finished, the instructor practiced alphabet “B” and three English vocabulary words again. Then, alphabet “B” worksheets were distributed to children for coloring.

Tables 3-7, 3-8, and 3-9 provide details on how all treatments for the three groups were given in the study. Because patterns of treatments were repeated every four sessions, only the first four sessions of each group are displayed in the above tables.

Data Collection and Data Analysis

There were three separate data collections from children, parents, and teachers. The Emotion Recognition Questionnaire (ERQ) for children, the Emotion Regulation

Checklist (ERC) for teachers, and the Head Start Competence Scale-Parent Version (HSCS-P) for parents were administered two weeks before treatments began and were administered again two weeks after treatments. A college student was hired to administer the ERQ. Each student participant received a small reward after completing the ERQ tests. Permissions for all students to participate in this study were gathered before the ERQ was administered. Teachers and parents all agreed to evaluate children's emotional understanding and emotion regulation for the study and turned in their evaluation forms on time.

The dependent variables in the study were emotional understanding and emotion regulation of children aged 5 and 6. Children's emotional understanding was assessed using the ERQ and the subscale on emotional understanding from the HSCS-P, and their emotion regulation was assessed using the ERC and the subscale on emotion regulation from the HSCS-P.

The independent variable levels were the three treatment levels of children's picture books: (a) books and related discussions that relate to emotions and extra activities focusing on English alphabets, (b) books, related discussions, and activities that relate to emotions, and (c) books and related discussions that did not relate to emotions and extra activities focusing on English alphabets. The dependent variables were the mean differences in pre- and posttest scores on the ERQ, ERC, and HSCS-P.

The statistical software, SPSS 13.0, was used in this study analyzing the data from children, their parents, and teachers. The outcomes of the statistical analysis determined whether children's picture books and activities related to emotions influenced children's emotional understanding and emotion regulation in the three treatment groups.

Each research question in this study compared mean differences in assessment scores on each dependent variable (emotional understanding or emotion regulation) among the three treatment groups. Thus, one-way analysis of variance (ANOVA) was used in data analysis. However, two assumptions needed to be examined before using one-way ANOVA procedure. One was testing for normality and the other was testing the equal variance assumptions (Huck, 2008).

In testing normality, if the value of skewness in small groups is smaller than 2.5 times its standard error, the assumption of normality is not violated (Field, 2000; Morgan & Greigo, 1998). In addition, if the test fails to reject the null hypothesis and the regression line of the three treatment groups has a common slope, the assumption of equal variance is met (Huck, 2008). After meeting these two assumptions, one-way ANOVA may be used; the .05 alpha level of significance was set in all of the statistical analyses.

Chapter 4

RESULTS

The results of the study are reported in this chapter and divided into two sections: emotional understanding and emotion regulation. Research question one and research question three were separately examined using the Emotion Recognition Questionnaire (ERQ) by the research assistant and the subscale on emotional understanding from the Head Start Competence Scale-Parent Version (HSCS-P) to determine whether children's picture books and extra activities relating to emotions or only children's picture books relating to emotions affect children's emotional understanding. Research question two and research question four were separately assessed using the Emotion Regulation Checklist (ERC) by school teachers and the subscale on emotion regulation from the HSCS-P to determine whether the children's picture books and extra activities relating to emotions or only children's picture books relating to emotions affect children's emotion regulation.

The purpose of the research was to determine whether (a) children's picture books and extra activities related to emotions influence children's emotional understanding and emotion regulation, (b) only children's picture books related to emotions contribute to children's emotional understanding and emotion regulation, or (c) the use of books and extra activities with children had no influence on children's emotional understanding and emotion regulation. The statistical analysis methods employed in this study and the results of the statistical analysis are reported below.

Emotional Understanding

Children's emotional understanding was evaluated via assessments, using the ERQ and the subscale on emotional understanding from the HSCS-P. Data analyses of these two assessments are described in the following section.

Emotional Recognition Questionnaire (ERQ)

The ERQ was used by the research assistance to measure children's emotional understanding. Table 4-1 shows descriptive statistics on the mean difference in pre- and posttest scores for three treatment groups. Children in Experimental Group Two (mean difference=3.35) receiving children's picture books and activities related to emotions had the highest mean difference scores on the pre-and posttests, and children in the control group (mean difference=1.39) receiving children's picture books and activities not related to emotions had the lowest mean difference score of the three treatment groups.

Table 4-1

Descriptive Statistics of Mean Differences of Posttest-Pretest by Treatment

Group	n	Pretest Mean	Posttest Mean	Mean Difference
		<i>SD</i>	<i>SD</i>	<i>SD</i>
Control Group	18	12.78	14.17	1.39
		2.60	1.86	2.06
Experimental Group One	18	11.00	13.89	2.89
		3.29	2.19	2.03
Experimental Group Two	23	10.52	13.87	3.35
		2.71	1.55	2.66
Total	59	11.36	13.97	2.61
		2.98	1.83	2.41

Note. ERQ values could range from a low of 0 to a high of 16.

For the emotional understanding result assessed using the ERQ, the normality and homogeneity of variances were examined among treatment groups. The values of skewness divided by standard errors were all smaller than 2.5 (separately 1.01, 1.7, and 1.4). Thus, for the small sample, the assumption of normality was met. The Levene test conducted to ascertain the homogeneity of the regression resulted in a p-value of .464, indicating that three treatment groups had common slopes. Because the normality assumption and homogeneity of variances assumption were met, a traditional one-way ANOVA was run.

Table 4-2 shows one-way ANOVA results for mean differences in pre- and posttest scores among three treatment groups. Based on one-way ANOVA, mean

difference scores between treatment groups for this experiment were found to be statistically significant ($p = .03$).

Table 4-2

ANOVA Results for Mean Difference Score of Posttest-Pretest by Treatment

Source	SS	<i>df</i>	MS	<i>F</i>	<i>p</i>
Between Groups	40.76	2	20.38	3.84	.03
Within Groups	297.27	56	5.31		
Total	338.03	58			

After an ominous *F*-test yielded a significant result, post-hoc pairwise comparisons were made among the three different means using the Scheffe test procedure. As can be seen in Table 4-3, children in Experimental Group Two receiving children's picture books and activities related to emotions scored significantly higher than children in the control group receiving children's picture books and activities both not related to emotions. There was no significant difference between the control group receiving children's picture books and activities not related to emotions and Experimental Group One receiving only children's picture books related to emotions.

Table 4-3

Mean Difference and Standard Deviation of Posttest-Pretest for Treatment

Measure	Control Group (n=18)	Experimental Group One (n=18)	Experimental Group Two (n=23)
ERQ			
Mean Difference	1.39 _a	2.89	3.35 _b
<i>SD</i>	2.06	2.03	2.66

Note. Differing subscripts indicate significant differences only between those means differences ($p < .05$).

Head Start Competence Scale-Parent Version (HSCS-P)

The subscale on emotional understanding from the HSCS-P was used by parents to evaluate children's emotional understanding. Table 4-4 lists the sample size, mean difference, and standard deviation for the three treatment groups. The mean difference for children in Experimental Group One (mean difference=1.56) receiving only children's picture books related to emotions and the mean difference for children in Experimental Group Two (mean difference=.78) receiving children's picture books and activities related to emotions were higher than the mean difference for children in the control group (mean difference=.17) receiving children's picture books and activities not related to emotions. Although there were difference in raw score, these differences were not statistically significant.

Table 4-4

Descriptive Statistics of Mean Differences of by Posttest-Pretest Treatment

Treatment Group	n	Mean Difference	SD
Control Group	18	.17	3.15
Experimental Group One	18	1.56	3.96
Experimental Group Two	23	.78	2.80
Total	59	.83	3.28

The data for the subscale on emotional understanding from the HSCS-P was tested for the normality assumption and the homogeneity of regression slope assumption. Skewness values divided by standard errors were all smaller than 2.5 (separately -.41, -.26, and 1.31). The statistical result failed to reject the null hypothesis, thus supporting the assumption of an equal regression slope ($p = .67$). Because the assumption of normality and homogeneity of the regression slope were all met, it was permissible to use the traditional one-way ANOVA procedure to analyze the data. As can be seen in Table 4-5, there were no significant change in emotional understanding from the posttest to the pretest of HSCS-P for any of the treatment levels ($p = .45$).

Table 4-5

ANOVA Results for Mean Difference Score of Posttest-Pretest by Treatment

Source	SS	df	MS	F	p
Between Groups	17.45	2	8.72	.81	.45
Within Groups	606.86	56	10.84		
Total	624.31	58			

Emotion Regulation

Children's emotion regulation was measured using two assessments—the ERC and the subscale on emotion regulation of the HSCS-P. The data analyses for these two assessments are described in the following sections.

Emotion Regulation Checklist (ERC)

The ERC was employed by school teachers to measure children's emotion regulation. Table 4-6 shows descriptive statistics for the mean differences on the pre-and posttests by the three treatment groups. The data revealed that the mean difference for children in Experimental Group One (mean difference=10.39) receiving only children's picture books related to emotions and the mean difference for children in Experimental Group Two (mean difference= 4.09) receiving children's picture books and activities related to emotion were both larger than the mean difference for children in the control group (mean difference=-7.22) receiving children's picture books and activities not related to emotion. Especially, the mean difference for children in Experimental Group One (mean difference=10.22) is remarkably higher than the mean difference for children in the control group (mean difference= -7.22).

Table 4-6

Descriptive Statistics of Mean Differences of Posttest-Pretest by Treatment

Group	n	Pretest Mean	Posttest Mean	Mean Difference
		<i>SD</i>	<i>SD</i>	<i>SD</i>
Control Group	18	131.56	124.33	-7.22
		9.01	8.01	6.66
Experimental Group One	18	106.94	117.33	10.39
		18.11	14.44	20.33
Experimental Group Two	23	120.30	124.39	4.09
		14.53	13.89	8.10
Total	59	119.66	122.22	2.56
		17.15	12.79	14.45

Note. ERC values could range from a low of 0 to a high of 161.

The skewness values for the three distributions of the three treatment groups were all smaller than 2.5 times the standard error (separately 1.01, 1.7, and 1.4 times). Thus, the assumption of normality was not violated. Additionally, the homogeneity of variance was tested among the three treatment groups, which indicated an unequal regression slope ($p = .00$). The assumption of equal variance for one-way ANOVA was violated. Therefore, statistical methods were employed to determine whether there was any outlier in the data. Box-and-whisker plots for the treatment groups appear in Appendix H. There were no outliers in the plots.

Even though the results of the one-way ANOVA showed a highly significant difference for the treatment groups ($p = .00$) (see Table 4-7), this still cannot be totally

accurate because the equal variance assumption was not met. Thus, the Brown-Forsythe one-way ANOVA and Welch one way-ANOVA correction were both conducted.

Table 4-7

ANOVA Results for Mean Difference Score of Posttest-Pretest by Treatment

Source	SS	<i>df</i>	MS	<i>F</i>	<i>p</i>
Between Groups	2879.33	2	1439.66	8.74	.00
Within Groups	9223.22	56	164.70		
Total	12102.54	58			

Examining the Brown-Forsythe one-way ANOVA and Welch one-way-ANOVA adjustment revealed the results were still significant at $p < .00$. They were still highly significant. Therefore, there was a significant effect among the three treatment groups.

The post-hoc test was run by using the Scheffe test procedure to examine any differences among the treatment groups. Table 4-8 showed that children in Experimental Groups One receiving children's picture books and activities related to emotions scored significantly higher than children in the control group receiving children's picture books and activities not related to emotions. Children in Experimental Group Two receiving only children's picture books related to emotions scored significantly higher than children in the control group receiving children's picture books and activities not related to emotions. There were no significant differences between Experimental Groups One and Two.

Table 4-8

Mean Difference and Standard Deviation of Posttest –Pretest by Treatment

Measure	Control Group (n=18)	Experimental Group One (n=18)	Experimental Group Two (n=23)
ERC			
Mean Difference	-7.22 _a	10.39 _b	4.09 _b
SD	2.67	20.33	8.10

Note. Differing subscripts indicate significant differences between mean difference scores ($p < .05$). Like subscripts indicate nonsignificant differences between mean differences scores.

Head Start Competence Scale-Parent Version (HSCS-P)

The subscale on emotion regulation from the HSCS-P was used to measure children's emotion regulation by parents. Table 4-9 lists descriptive statistics for the mean differences on the pre- and posttest by the three treatment groups. Scores for children in Experimental Group One (mean difference=1.56) receiving only children's picture books related to emotions and children in Experimental Group Two (mean difference=1.57) receiving children's picture books and activities both related to emotions were higher than the mean difference for children in the control group (mean difference=.61) receiving children's picture books and activities both not related to emotions. Although there were differences in raw score, these differences were not statistically significant.

Table 4-9

Descriptive Statistics of Mean Difference of Posttest-Pretest by Treatment

Group	N	Mean Difference	SD	Range	
				Low	High
Control Group	18	.61	4.41	-7	7
Experimental Group One	18	1.56	2.83	-2	8
Experimental Group Two	23	1.57	3.60	-6	10
Total	59	1.27	3.63	-7	10

The skewness values were all smaller than 2.5 times the standard error (separately -.64, 1.34, and .54 times). The assumption of normality was not violated. The homogeneity of the variance assumption was tested using the Levene test, which resulted in a p-value of .12. The assumption of an equal regression slope was accepted. Therefore, one-way ANOVA was appropriately applied to analyze data (see Table 4-10). As can be seen in Table 4-10, there were no significant change in emotion regulation from the posttest to the pretest of HSCS-P for any of the treatment levels ($p = .66$).

Table 4-10

ANOVA Results for Mean Difference Scores of Posttest-Pretest by Treatment

Source	SS	df	MS	F	p
Between Groups	11.29	2	5.64	.42	.66
Within Groups	752.37	56	13.44		
Total	763.66	58			

Summary

Data analyses reported in this chapter included descriptive statistics, one-way ANOVA, and the post-hoc test, if necessary. Descriptive statistics provided mean differences in the scores for pre-and posttests (posttest minus pretest), standard deviation, and the range when the standard deviation was obviously high. One-way ANOVA was run when statistical assumptions were met to examine whether there was any difference in any level of treatment. If there was a significant difference between treatment groups, the post-hoc test was employed to ascertain which difference means were significantly different from those for other groups.

Chapter 5

DISCUSSION

The purpose of the study was to examine the effects of children's picture books on children's emotional understanding and emotion regulation. Results of assessments were analyzed using the statistical procedures described in chapter 3 and analyzed in the previous chapter. This chapter summarizes and discusses findings, indicates limitations, and provides recommendations for educators and further research. A summary and discussions of findings, limitations, and recommendations are discussed below.

Summary and Discussions of Findings

Emotional understanding and emotion regulation were the two dependent variables in the study. Research questions one and three related to children's emotional understanding, which was separately examined using the Emotion Recognition Questionnaire (ERQ) and evaluated using the subscale on emotional understanding from the Head Start Competence Scale-Parent Version (HSCS-P). Research questions two and four related to children's emotion regulation, which was separately examined by the Emotion Regulation Checklist (ERC) and evaluated using the subscale on emotion regulation from the Head Start Competence Scale-Parent Version (HSCS-P). Each research question is discussed in sequence.

Research Question One

The purpose of research question one was to determine whether different treatments (children's picture books and activities related to emotions, only children's picture books related to emotions, and children's picture books and activities not related to emotions) made a difference in children's emotional understanding, which was measured by children's responses to the ERQ. The respective group difference means were based on changes from pre-test to posttest. However, there were significant differences among the three treatment groups ($p < .05$). One possible reason is that children regularly received treatments. Elias (1997) argued that instruction beneficial to emotional understanding needs to be provided using a consistent framework. When introducing emotional knowledge or practicing skills for managing emotions, use of various frameworks greatly contributes to children's emotional learning (Elias, 1997)

The mean difference for the group (mean difference=3.35) receiving children's books and activities related to emotions was significantly higher than that for the group (mean difference=1.39) receiving children's books and activities not related to emotions. One possible explanation is that children's picture books and activities related to emotions could increase children's emotional understanding. Lin (2004) found that use of children's picture books with extensive activities could help children understand emotions and emotional expressions.

There was no significant difference between the group receiving only children's books related to emotions and another two treatment groups. The fact that there was no significant difference could only be due to the finding that reading children's picture

books that are related to emotions have no impact on children's emotional understanding. The fact of no differences might be due to the short period of treatment time. An examination of scores for mean differences showed that the group (mean difference=2.89) receiving only children's books related to emotions had higher scores than the group (mean difference=1.39) receiving children's books and activities both not related to emotions. However, they were not divergent enough to be significant. It is possible that these results might have been significant if the treatment period had been longer than eight weeks.

Research Question Two

Research question two was designed to determine whether different approaches in treatments (children's picture books and activities related to emotions, only children's picture books related to emotions, and children's picture books and activities not related to emotions) made a difference in children's emotion regulation, which was evaluated using the school teachers' ERC. There were significant differences among the three treatment groups ($p < .05$). A difference score for each subject (posttest minus pretest) were computed and became dependent variables. Again, significances among the three groups might be related to consistent treatments and frameworks.

The mean difference for the group (mean difference=4.09) receiving children's books and activities related to emotions and the group (mean difference=10.39) receiving only children's books related to emotions were both significantly higher than that for the

group (mean difference=-7.22) receiving children's books and activities not related to emotions. The explanation for this finding is that only children's picture books related to emotions or children's picture books and activities related to emotions both contribute to children's emotion regulation. Books would be very good resources in children's learning about feelings and raising topics for discussion (Elias, 1997; Lin, 2006; Wu, 2002). Extra activities, art works, and role-play are beneficial to children as they practice their skills in solving emotional problems and understanding emotions (Elias, 1997; Lin, 2006).

Research Question Three

The purpose of research question three was to determine whether different approaches in treatments (children's picture books and activities related to emotions, only children's picture books related to emotions, and children's picture books and activities not related to emotions) have an impact on children's emotional understanding, which was assessed using the Parent Version of the HSCS. However, no significant differences occur among the three treatment groups based on changes from posttest score to pretest score ($p > .05$).

One possible explanation for the lack of significant differences among the three treatment groups was that parents could not easily detect changes in children's emotional understanding in a short period of time, especially since emotional understanding is an internal state. Denham (1998) argued that it is hard for people to objectively observe one person's internal states. Another explanation is that children's emotional understanding did not show real differences after they received treatments related to emotions.

Research Question Four

Research question four was designed to determine whether different approaches to emotional learning (children's picture books and activities both related to emotions, only children's picture books related to emotions, and children's picture books and activities both not related to emotions) made a difference in children's emotion regulation, which was assessed using the Parent Version of the HSCS. However, there were no significant differences among the three treatment groups ($p > .05$).

One possible explanation is that the study might need more treatment time to influence children's capacity to engage in emotion regulation. The HSCS-P was successfully used in a three-year long-term study to examine children's changes in emotional competencies (Domitrovich et al., in press). Another explanation is that parents could not detect any differences in children's emotion regulation after receiving treatments related to emotions.

Limitations

Treatment groups in the study were all from one school due to limited financial support and teaching resources. The use of three treatment groups in one school means that results cannot be representatives for other schools across the school district and may not be generalized to other groups, such as children from different social and economic groups. Therefore, the results of this study cannot be inferred to the population and only can be used to investigate the impact of treatments on three groups of children.

In order to reduce the effects generated by the investigator, the investigator personally taught the experimental and control groups. Therefore, this study did not control for the time of day, which meant that some treatments would occur at the same time on a different day, and some would occur on the same day but at a different time. The time of instruction may have slight effects, but these effects are not as great as the effects of different instructors.

The school already scheduled its semester events in the beginning of the semester. The Friday activities on April 20, 2007 had to move forward to the previous Thursday, April 19, 2007, because the field trip had been set up on April 20, 2007. The treatment time for Experimental Group One and the control group were set up on every Tuesday and Friday rather than every Tuesday and Thursday because children's physical training was irregularly held on every Thursday. In order to make the treatment time fit the school schedule, those changes in treatment times were necessary.

A testing threat might have existed, because children taking the same assessments twice (pretest and posttest) might affect the results of the assessments. However, there was an eight week time differential from pretest to posttest and the three treatment groups were all exposed to the same measurement procedure, which might reduce the threat of test sensitization. The threat of maturation might also become an additional threat to internal validity. However, it was not anticipated that children's maturity would dramatically increase in eight weeks, so children's maturity had a minor influence on the variables investigated.

It is important for readers to remember that aspects of the differences in evaluation outcomes between teachers and parents or children and parents are due to the

different views of children's emotion regulation and emotional understanding. Parents and teachers evaluate children's emotion regulation in different settings. Parents evaluate children's emotional understanding based on their experiences, which are different from children's performance.

Conclusions

To prepare children be ready for their challenges in life, it is important to develop their emotional competencies at home and school, so that they may successfully overcome challenges. There are many ways to promote positive young children's emotional development, but research seeks to identify the way that is most beneficial and worth further investigation. The use of children's picture books, art works, and role play to guide young children is not pioneering in studies of children's emotional learning. Those techniques have been used and recommended in the Taiwanese and American literatures (Chen, 2000; Chiou, 2005; Elias, 1997; Hyson, 2004; Wu, 2004).

The study results show that not all findings indicating effects of children's picture books related to emotions could significantly influence children's emotional understanding and emotion regulation. Although influences were not proven very useful in this study, they are still worth further investigation of their usage and effects. Future research could clarify why some treatments in this study did not show differences between groups and provide suggestions for further study.

Recommendations

In order to make children's picture books more practical and functional to children's emotional learning and the classroom in the kindergarten setting.

Recommendations are necessarily needed. Based on the discussions of findings and limitations of this study, recommendations for educators and future research emerge in the following sections.

Recommendations for Educators

Book selections. Selecting an appropriate children's picture book to address emotions is a first task in using books in support of instruction in emotional learning. Except for comments from children's literature databases or reviews of books on the websites, children's reactions and responses to books are also effective ways to select book. Books with interesting plots and on particular subjects could attract children's attention in emotional learning (Glazer, 2000; Hyson, 2004). While reading stories, teachers could introduce and discuss emotions (Elias, 1997). Moreover, choosing books should be based on children's age and interests. Too easy or difficult books might lose children's attention and interests.

Activities design. Activities designs could be based on children's picture books. Books provide children chances to know emotions, and extra activities could extend children's experiences of books to the following activities. Those activities provide children with more chances to practice emotional skills and experience certain emotions. When developing teaching materials on emotional learning, educators could add those

techniques (e.g. art works and role play) in their teaching and create many wonderful emotional learning activities for children.

Recommendations for Future Research

Sample selection. Future research could select classes from different schools rather than several classes from one school. A larger group of people or a more diverse set of samples are helpful in drawing conclusions about the population. In this study, regular children were participants. It would be instructive to investigate what kind of results would occur with other groups of children, such as children at risk. Additionally, the numbers in each treatment group were small. Based on the results for G*Power, to obtain significant differences among treatment groups via the Head Start Competence Scale-Parent Version, 252 participants are needed in each group. Recruiting more participants to the study might have had a significant impact on the results.

Treatment time. This study took one-half hour per session, twice per week, for a total of eight weeks, to guide children's emotional understanding and emotion regulation. The time limitations were due to limited experimental time and funding. Other emotional learning programs, such as Preschool PATHS in the United States (Domitrovich et al., in press), took one year to examine the effectiveness of teaching and curricula on children's emotional development. Therefore, a longitudinal study could give children more sufficient time to learn emotions and could be more accurate in examining changes in children's emotional competencies than short-term treatments.

Qualitative research. Additional research methods could be used in future studies.

While quantitative research methods were employed in this study, adding qualitative research approaches would be acceptable. For example, interviewing and observing participants as they interact in a small focus group or observing individual reactions to an incident would be very good measurement devices for examining children's emotional competencies.

References

- Brown, J. R., & Dunn, J. (1996). Continuities in emotional understanding from three to six years. *Children Development, 67*, 789-802.
- Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research*. Chicago: Rand McNally.
- Camras, L. A., Ribordy, S. C., Hill, J., Martino, S., Spaccarelli, S., & Stefani, R. (1988). Recognition and posing of emotion expressions by abused children and their mother. *Developmental Psychology, 24*, 776-781.
- Chang, F. H. (2002). 情緒教育課程對提昇國中學生情緒智力效果之研究 [Effects of an emotional learning curriculum on junior high school students' emotional intelligent]. Unpublished master's thesis, National Ping-Tung University of Education, Ping-Tung, Taiwan.
- Chang, L., Schwartz, D., Dodge, K., & McBride-Chang, C. (2003). Harsh parenting in relation to child emotion regulation and aggression. *Journal of Family Psychology, 17*, 598-606.
- Chao, H. Y. (1999). *我永遠愛你* [I'll always love you]. (Wilhelm, H.). Taipei: Shang-Yi. (Original work published 1985)
- Chen, M. G. (2000). 以兒童繪本進行幼兒情感教育之行動研究 [The action research of children's affective education through the usage of children's picture books]. Unpublished master's thesis, National Dong Hwa University, Hualien, Taiwan.
- Chen, M. L. (1993). *蝸牛* [Snail]. Taipei: Chin-Chin Publications Ltd.

- Chen, M. L. (2002). *阿比，為什麼傷心？* [Why so sad, Brown rabbit?] (Cain, S., & Kelly, J.). Taipei: Chin-Chin Publication Ltd. (Original work published 1998)
- Chen, S. J. (2003). 情意教學在幼稚園的實施與困境突破 [Difficulties in implementing affective education in kindergartens]. *教師之友*, 44, 67-74.
- Chen, S. J. (2004). 心靈教學與幼兒行為之相關研究 [A study of the relationship between children's behaviors and spiritual learning]. Unpublished master's thesis, National Chiayi University, Chiayi, Taiwan.
- Cheng, J. C. (1999). *幼兒文學* [Early literacy]. Taipei: Psychological Publishing Co.
- Chien, S. J. (2001). 幼兒情緒之多少?百位幼兒情緒報告書 [The awareness and expression of education in young children: A survey of 100 kindergartens]. *台東師院學報*, 12, 45-70.
- Chiou, L. C. (2005). 如何應用繪本進行情緒教育 [How to use children's books to proceed emotional learning]. *屏東縣教育季刊*, 21, 26-29.
- Chiu, A. C. (2004). 以兒童繪本增進幼兒友誼互動之研究 [An action research of promoting young children's friendship through children's picture books]. Unpublished master's thesis, National Ping-Tung University of Education, Ping-Tung, Taiwan.
- Collaborative for Academic, Social, and Emotional Learning (n.d.) *What is SEL: Definition*. Retrieved November, 20, 2007, from <http://www.casel.org/basics/definition.php>
- Conduct Research Prevention Group (1999). Initial impact of the fast track prevention

- trial for conduct problems: I. the high-risk sample. *Journal of Counseling and Clinical Psychology*, 67, 631-647.
- Coody, B. (1997). *Using literature with young children* (5th ed.). Madison, WI: Brown & Benchmark.
- Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (2nd ed.). Upper Saddle River, NJ: Merrill.
- Darwin, C. (1965). *The expression of the emotions in man and animals*. Chicago: University of Chicago Press.
- Dasho, S., Lewis, C., & Watson, M. (2001). Fostering emotional intelligence in the classroom and school: Strategies from the Child Development Project. In J. Cohen (Ed.), *Caring classrooms/intelligent schools: The social emotional education of young children* (pp. 87-107). New York: Teachers College Press.
- Denham, S. A. (1998). *Emotional development in young children*. New York: Guilford Press.
- Denham, S. A. (2005). Assessing social and emotional development in children from longitudinal perspective for the national children's study: Social-emotional compendium of measures. Retrieved January 24, 2007, from http://nationalchildrensstudy.gov/research/analytic_reports/upload/Social-Emotional-Compendium-of-Measures-Spring-2005.pdf
- Denham, S. A., McKinley, M., Couchoud, E. A., & Holt, R. (1990). Emotional and behavioral predictors of peer status in young preschoolers. *Child Development*, 61, 1145-1152.
- Denham, S. A., & Weissberg, R. P. (2004). Social-emotional learning in early childhood:

- What we know and where to go from here. In E. Chesebrough, P. King, T. P. Gullotta & M. Bloom (Eds.), *A blueprint for the promotion of prosocial behavior in early childhood* (pp. 13-50). New York: Kluwer Academic/Plenum Publishers.
- Department of Health, Taipei City Government. (2005). *The report of evaluating schools' emotional thermometer through questionnaires*. Retrieved November 14, 2006, from <http://www.healthcity.net.tw/upload/20054116124512.pdf>.
- Dodge, K. A., Laird, R., Lochman, J. E., & Zeli, A. (2002). Multidimensional latent-construct analysis of children's social information processing patterns: Correlations with aggressive behavior problems. *Psychology Assessment, 14*, 70-73.
- Domitrovich, C., Cortes, R. C. & Greenberg, M. T. (2001). *Head Start Competence Scale Technique Report*. Unpublished report, Pennsylvania State University.
- Domitrovich, C. E., Cortes, R. C., & Greenberg, M. T. (in press). Improving young children's social and emotional competence: A randomized trial of Preschool PATHS curriculum. *Journal of Primary Prevention*.
- Dunn, J. (1994). Experience and understanding of emotions, relationship, and membership in particular culture. In P. Ekman & R. J. Davidson (Eds.), *The nature of emotion: Fundamental questions* (pp. 352-355). New York: Oxford University Press.
- Dunn, J., Brown, J., Slomkowski, C., Tesla, C., & Youngblade, L. (1991). Young children's understanding of other people's feelings and beliefs: Individual differences and their antecedents. *Child Development, 62*, 1352-1366.
- Ekman, P., & Davidson, R. J. (1994). *The Nature of emotion: Fundamental questions*.

- New York: Oxford University Press.
- Elias, M. J. (1997). *Promoting social and emotional learning: Guidelines for educators*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Emde, R. N., Gaensbauer, T. J., & Harmon, R. J. (1976). *Emotional expressions in infancy*. New York: International University Press.
- Field, A. P. (2000). *Discovering statistics using SPSS for Windows: Advanced techniques for the beginner*. London; Thousand Oaks: Sage Publications.
- Garber, J., & Dodge, K. A. (1991). Domains of emotion regulation. In J. Garber & K. A. Dodge (Eds.), *The development of emotion regulation and dysregulation* (pp. 3-14). New York: Cambridge University Press.
- Garner, P. W., Jones, D. C., & Palmer, D. J. (1994). Social cognitive correlates of preschool children's sibling caregiving behavior. *Developmental Psychology*, 30, 905-911.
- Ghosn, I. K. (1999). *Emotional intelligence through literature*. Paper presented at the annual meeting of the teachers of English to speakers of other languages, New York, NY.
- Goleman, D. (1995). *Emotional intelligence*. New York: Bantam Books.
- Gomi, T. (1998). 鱷魚怕怕牙醫怕怕 [The crocodile and the dentist]. Taipei: Shang-Yi.
- Glazer, J. I. (2000). *Literature for young children* (4th ed.). Upper Saddle River, NJ: Merrill.
- Greenberg, M. T., & Kusche, C. A. (1993). *Promoting social and emotional development in deaf children: The PATHS project*. Seattle: University of Washington Press.

- Greenberg, M. T., Kuschâe, C. A., Cook, E. T., & Quamma, J. P. (1995). Promoting emotional competence in school-aged children: The effects of PATHS curriculum. *Development and Psychopathology*, 7, 117-136.
- Greenberg, P. (2005). The child who seems angry: Helping children manage anger and frustration. *Scholastic Early Childhood Today*, 20, 14.
- Greenspan, S. I., & Wieder, S. (2006). *Infant and early childhood mental health: A comprehensive, developmental approach to assessment and intervention* (1st ed.). Washington, DC: American Psychiatric Publications.
- Harris, P. L. (1989). *Children and emotion: The development of psychological understanding*. New York: Basil Blackwell.
- Harter, S. (1998). The development of self-perspective. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology: Vol. 3. Social, Emotional, Personality Development* (5th ed., pp. 553-618). New York: Wiley.
- Hendrick, J., & Weissman, P. (2007). *Total learning: Developmental curriculum for the young child* (7th ed.). Upper Saddle River, NJ: Pearson Merrill/Prentice Hall.
- Ho, K. F. (1992). *兔子蹦蹦跳* [Rabbit]. Taipei: Chin-Chin Publications Ltd.
- Huang, C. T. (1998). *潔西卡和大野狼：給會做惡夢的孩子* [Jessica and the wolf: A story for children who have bad dreams.]. (Lobby, T. & Dixon, T.). Taipei: Yuan-Liou Publishing Co. (Original work published 1990)
- Huang, W. M. (2005a). *我好難過* [When I feel sad]. (Spelman, C. & Cote, N.). Taipei: Common Wealth Magazine. (Original work published 2002)

- Huang, W. M. (2005b). *我好害怕* [When I feel scared]. (Spelman, C. & Cote, N.). Taipei: Common Wealth Magazine. (Original work published 2002)
- Huck, S. W. (2008). *Reading statistics and research* (5th ed.). Boston: Pearson/Allyn & Bacon.
- Hyson, M. (2004). *The emotional development of young children: Building an emotion-centered curriculum* (2nd ed.). New York: Teachers College Press.
- Janson, G. R., & King, M. A. (2006). Emotional security in the classroom: What works for young children. *Journal of Family and Consumer Sciences*, 98, 70-74.
- Jensen, L. C., & Wells, M. G. (1979). *Feelings: Helping children understand emotions*. Provo, Utah: Brigham Young University Press.
- Kao, S. J. (2002). 大班幼兒對繪本中友誼概念的詮釋 [Young children's interpretation of the conception of friendship from picture books]. Unpublished master's thesis, National Hsinchu University of Education, Hsinchu, Taiwan.
- Keppel, G. (2004). *Design and analysis: A researcher's handbook*. Upper Saddle River, NJ: Pearson Prentice Hall.
- Kiefer, B. Z., Hepler, S. I., & Hickman, J. (2007). *Charlotte Huck's children's literature* (9th ed.). Boston: McGraw-Hill.
- Kostelnik, M. J., Soderman, A. K., & Whiren, A. P. (2007). *Developmentally appropriate curriculum: Best practices in early childhood education* (4th ed.). Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.
- Kostelnik, M. J., Whiren, A. P., Soderman, A. K., & Gregory, K. (2006). *Guiding children's social development: Theory to practice* (5th ed.). Clifton Park, NY:

Thomson Delmar Learning.

- Lai, M. (1996). *我變成一隻噴火龍* [I've become a fire-breathing dragon]. Taipei: Mandarin Dairy News.
- Lai, M. L. (2001). *波利生日快樂* [Happy birthday, Davy]. (Weninger, B., Lanning, R. & Tharlet, E.). Taipei: Shangjen. (Original work published 2000)
- Landy, S. (2002). *Pathways to competence: Encouraging healthy social and emotional development in young children*. Baltimore, MD: Paul H. Brookes Pub.
- Lee, C. L. (2001). *子兒吐吐* [Spit the seeds]. Taipei: Hsin-Yi
- Lewis, M., & Michalson, L. (1983). *Children's emotions and moods: Developmental theory and measurement*. New York: Plenum Press.
- Li, F. L. (1996). *獅子* [Lion]. Taipei: Chin-Chin Publications Ltd.
- Li, K. S. (2001). *菲菲生氣了-非常非常的生氣* [When Sophie gets angry-Really really angry]. (Bang, M.). Taipei: 3&3 International Education Institute. (Original work published 1999)
- Li, T. J. (1999). *讓我安靜五分鐘* [Five minutes peace]. (Murphy, J.). Taipei: Taiwan Mac Education Co. (Original work published 1999)
- Liang, J. S. (1997). *情緒教育課程對國小資優生情緒適應行為之效果研究* [The effects of emotional education course on emotional adjustment behavior of gifted students in the elementary school]. Unpublished master's thesis, National Taipei Municipal University of Education, Taipei, Taiwan.
- Lin, M. C. (2003a). *我好興奮* [I am excited]. (Crary, E. & Whitney, J.). Taipei: Psychological Publishing Co. (Original work published 1992)

- Lin, M. C. (2003b). *我好氣憤* [I am furious]. (Crary, E. & Whitney, J.). Taipei: Psychological Publishing Co. (Original work published 1992)
- Lin, M. C. (2003c). *我好害怕* [I am scared]. (Crary, E. & Whitney, J.). Taipei: Psychological Publishing Co. (Original work published 1992)
- Lin, M. L. (2004). *繪本閱讀教學：以情緒教育主題為例* [Teaching through children's picture books: Emotion education]. Unpublished master's thesis, National Taitung University, Taitung, Taiwan.
- Lin, H. Y. (2006). *運用創造性戲劇於幼稚園情緒教育之行動研究* [Develop an early childhood curriculum for children's emotional development through drama activities action research]. Unpublished master's thesis, National University of Tainan, Tainan, Taiwan.
- Liu, C. Y. (2003). *我為什麼快樂* [What makes me happy]. (Anholt, C. & Anholt, L.). Hsinchu: Heryin. (Original work published 1995)
- Liu, M. L. (1998). *斑馬* [Zebra]. Taipei: Chin-Chin Publications Ltd.
- Liu, S. Y. (2001). *河馬* [Hippo]. Taipei: Chin-Chin Publications Ltd.
- Liu, S. Y. (2003). *松鼠* [Squirrel]. Taipei: Chin-Chin Publications Ltd.
- Liu, S. Y., & Wang, Y. J. (2004). *狗-人類的好朋友* [Human's best friends-Dogs]. Taipei: Chin-Chin Publications Ltd.
- Liu, T. C. (2001). *國小單親學童對父母離異經驗之敘說-現實與繪本之間* [Description of school-age children with experiences of parents divorced: Reality and picture books]. Unpublished master's thesis, National Hualien University of

Education, Hualien, Taiwan.

- Luby, J. L. (2005). Depression. In C. H. Zeanah (Ed.), *Handbook of infant mental health* (2nd ed., pp. 382-396). New York: Guilford Press.
- Marriott, S. (1991). *Picture books in the primary classroom*. London: Paul Chapman.
- Ministry of Education. (2006, September 1). *Issue 11: Fulfill students' behavioral education*. Received September 25, 2006, from http://www.edu.tw/EDU_WEB/EDUMGT/SECRETARY/EDU8354001/2003/discuss/211.htm
- Morgan, G. A., & Griego, O. V. (1997). *Easy use and interpretation of SPSS for Windows: Answering research questions with statistics*. Mahwah, NJ: Lawrence Erlbaum.
- O'Shea, M. M. (2004). What do we know about how children learn? The social, intellectual and cognitive development of children: A guide to the first five years. In E. Chesebrough, P. King, T. P. Gullotta & M. Bloom (Eds.), *A blueprint for the promotion of prosocial behavior in early childhood* (pp. 1-11). New York: Kluwer Academic/Plenum Publishers.
- Pollak, S. D., Cicchetti, D., Hornung, K., & Reed, A. (2000). Recognizing emotion in faces: Developmental effects of child abuse and neglect. *Developmental Psychology*, *36*, 679-688.
- Ribordy, S. C., Camaras, L. A., Stefani, R., & Spaccarelli, S. (1988). Vignettes for emotion recognition research and affective therapy with children. *Journal of Clinic Child Psychology*, *17*, 322-325.
- Russell, D. L. (2005). *Literature for children: A short introduction* (5th ed.). Boston: Pearson/Allyn & Bacon.

- Saarni, C. (1999). *The development of emotional competence*. New York: Guilford Press.
- Saarni, C. (2007). The development of emotional competence: Pathways for helping children to become emotionally intelligent. In R. Bar-On, K. Maree & M. J. Elias (Eds.), *Educating people to be emotionally intelligent* (pp. 15-36). Westport, CT: Praeger Publishers.
- Sabatino, D. A., Webster, B. G., & Vance, H. B. (2001). Childhood mood disorders: History, characteristics, diagnosis, and treatment. In H. B. Vance & A. J. Pumariega (Eds.), *Clinical assessment of child and adolescent behavior* (pp. 413-449). New York: Wiley.
- Sax, G. (1997). *Principles of educational and psychological measurement and evaluation* (4th ed.). Belmont, CA: Wadsworth.
- Schwartz, D. & Proctor, L. J. (2000). Community violence exposure and children's social adjustment in the school peer group: The mediating roles of emotion regulation and social cognition. *Journal of Counseling Clinical*, 68, 670-683.
- Shields, A., & Cicchetti, D. (1995, March). *The development of an emotion regulation assessment battery: Reliability and validity among at-risk grade-school children*. Poster session presented at the biennial meeting of the Society for Research in Child Development, Indianapolis, IN.
- Shields, A., & Cicchetti, D. (1997). Emotional regulation among school-age children: The development and validation of a new criterion Q-sort scale. *Developmental Psychology*, 33, 906-916.
- Shields, A., & Cicchetti, D. (1998). Reactive aggression among maltreated children: The contributions of attention and emotion dysregulation. *Journal of Clinical Child*

- Psychology*, 27, 381-395.
- Shields, A., & Cicchetti, D. (2001). Parental maltreatment and emotion dysregulation as risk factors for bullying and victimization in middle childhood. *Journal of Clinical Child Psychology*, 30, 349-363.
- Sperber, A. D., Devellis, R. F., & Boehlecke, B. (1994). Cross-cultural translation: Methodology and validation. *Journal of Cross-Cultural Psychology*, 25, 501-524.
- Sun, W. L. (1994). 豬寶貝 [Baby Pig]. Taipei: Chin-Chin Publications Ltd.
- Sun, W. L. (1995). 駝鳥 [Ostrich]. Taipei: Chin-Chin Publications Ltd.
- Sun, W. L. (1996). 蜻蜓 [Dragonfly]. Taipei: Chin-Chin Publications Ltd.
- Sun, W. L. (1999). 山羊 [Goat]. Taipei: Chin-Chin Publications Ltd.
- Thompson, C. L., & Rudolph, L. B. (2004). *Counseling children* (6th ed.). Belmont, CA: Thompson/Brooks/Cole.
- Tsai, C. C. (2005). 我好生氣 [When I feel angry]. (Spelman, C. & Cote, N.). Taipei: Common Wealth Magazine. (Original work published 2002)
- Tunnell, M. O., & Jacobs, J. S. (2000). *Children's literature, briefly* (2nd ed.). Upper Saddle River, NJ: Merrill.
- Wang, Y. J. (1996). 鬥魚 [Paradise fish]. Taipei: Chin-Chin Publications Ltd.
- Wang, Y. J. (2000a). 螞蟻 [Ant]. Taipei: Chin-Chin Publications Ltd.
- Wang, Y. J. (2000b). 無尾熊 [Koala]. Taipei: Chin-Chin Publications Ltd.
- Wang, Y. J. (2003). 賞鯨去 [Go to See Whales]. Taipei: Chin-Chin Publications Ltd.
- Wang, W. L., Lee, H. L., & Fetzer, S. J. (2006). Challenges and strategies of instrument translation. *Western Journal of Nursing Research*, 28, 310-321.

- Weare, K. (2004). *Developing the emotionally literate school*. London; Thousand Oaks, CA: Paul Chapman.
- Wintre, M. G., & Vallance, D. D. (1994). A developmental sequence in the comprehension of emotions: Intensity, multiple emotions, and valence. *Developmental Psychology, 30*, 509-514.
- Wu, I. C. (2002). 圖畫書，童話在兒童及成人兒童諮商之應用 [The applications of picture books and fairy tales in the counseling of young children and child within]. Retrieved November 4, 2006, from <http://www.kyu.edu.tw/kyitpage/paper/922/91159.PDF#search='%E5%9C%96%E7%95%AB%E6%9B%B8%EF%BC%8C%E7%AB%A5%E8%A9%B1%E5%9C%A8%E5%85%92%E7%AB%A5%E5%8F%8A%E6%88%90%E4%BA%BA%E5%85%92%E7%AB%A5%E8%AB%AE%E5%95%86%E4%B9%8B%E6%87%89%E7%94%A8'>
- Wu, S. L. (2004). 圖畫故事書在國小一年級國語文領域的應用-情緒教育融入故事實踐的教學 [The applications of picture books in the language course of first grader- Emotion education integrated into story teaching]. Unpublished master's thesis, National Hsinchu University of Education, Hsinchu, Taiwan.
- Wu, Y. Y. (2000). 情緒教育融入國小國語科之教學研一以國小四年級為例 [The study of confluent emotional education course in elementary Chinese education-Take elementary fourth grade Students for example]. Unpublished master's thesis, National Dong Hwa University, Hualien, Taiwan.
- Yang, M. H. (1992). *長頸鹿* [Giraffe]. Taipei: Chin-Chin Publications Ltd.

Zambo, D., & Hansen, C. C. (May, 2007). Love, language, and emergent literacy.

Journal of the National Association for the Education of Young Children, 62,
32-37.

Zins, J. E., Elias, M. J., Greenberg, M. T., & Weissberg, R. P. (2000). Promoting social and emotional competence in children. In K. M. Minke & G. G. Bear (Eds.),

Preventing school problems, promoting school success: Strategies and programs that work (pp. 71-99). Bethesda, MD: National Association of School

Psychologists.

Appendix A

Pilot Study

The Emotional Recognition Questionnaire (ERQ) is used with children from aged five to the first grade (Conduct Research Prevention Group, 1999; Dodge et al., 2002; Ribordy et al., 1998). However, Chien (2001) indicated that while Taiwanese students over the age of five are able to label feelings well, Taiwanese students at age four are not as competent as older children in identifying feelings. In order to establish an appropriate age for the study and avoid “ceiling effects,” a pilot study of the ERQ is necessary. The investigator recruited 15 five-year-olds to take the ERQ and then checked the assessment outcomes. Meanwhile, the process of pre-testing the ERQ helped the investigator to identify any potential issues or adjustments in administering the ERQ.

Participants in the pilot study were from a public kindergarten located in north Kaohsiung City, Taiwan. The investigator recruited participants from three classes of 5- and 6-year-olds. After obtaining formal consent from participants’ parents and participants’ oral consent, the investigator administered the assessment instrument, ERQ, allowing the investigator to find the appropriate age for this study and examine the procedure for administering the ERQ. A total of 31 participants joined the pilot study; the average age of participants was 70.14 months. The sample of the 31 children included 17 boys and 14 girls. The emotions identified correctly were computed for analyses (Cronbach’s alpha =.636). According to the results of the pilot study, it is appropriate to apply the ERQ on 5- and 6-year-olds.

Appendix B

Treatment Groups and Activities for the Total Number of Weeks

Session	Topic	Experimental Group One	Experimental Group Two	Control Group
Session 1	Emotional Understanding Happy	Picture book A1 with discussion of A1 and one English activity	Picture book A1 with discussion of A1 and activity A1	Picture book B1 with discussion of B1 and one English activity
Session 2	Emotional Understanding Happy	Picture book A2 with discussion of A2 and one English activity	Picture book A2 with discussion of A2 and activity A2	Picture book B2 with discussion of B2 and one English activity
Session 3	Emotion Regulation Excited	Picture book A3 with discussion of A3 and one English activity	Picture book A3 with discussion of A3 and activity A3	Picture book B3 with discussion of B3 and one English activity
Session 4	Emotion Regulation Excited	Picture book A4 with discussion of A4 and one English activity	Picture book A4 with discussion of A4 and activity A4	Picture book B4 with discussion of B4 and one English activity
Session 5	Emotional Understanding Sad	Picture book A5 with discussion of A5 and one English activity	Picture book A5 with discussion of A5 and activity A5	Picture book B5 with discussion of B5 and one English activity

Session 6	Emotional Understanding Sad	Picture book A6 with discussion of A6 and one English activity	Picture book A6 with discussion of A6 and activity A6	Picture book B6 with discussion of B6 and one English activity
Session 7	Emotion Regulation Sad	Picture book A7 with discussion of A7 and one English activity	Picture book A7 with discussion of A7 and activity A7	Picture book B7 with discussion of B7 and one English activity
Session 8	Emotion Regulation Sad	Picture book A8 with discussion of A8 and one English activity	Picture book A8 with discussion of A8 and activity A8	Picture book B8 with discussion of B8 and one English activity
Session 9	Emotional Understanding Angry	Picture book A9 with discussion of A9 and one English activity	Picture book A9 with discussion of A9 and activity A9	Picture book B9 with discussion of B9 and one English activity
Session 10	Emotional Understanding Angry	Picture book A10 with discussion of A10 and one English activity	Picture book A10 with discussion of A10 and activity A10	Picture book B10 with discussion of B10 and one English activity
Session 11	Emotion Regulation Angry	Picture book A 11with discussion of A11 and one English activity	Picture book A11 with discussion of A11and activity A11	Picture book B11 with discussion of B11 and one English activity

Session 12	Emotion Regulation Angry	Picture book A12 with discussion of A12 and one English activity	Picture book A12 with discussion of A12 and activity A12	Picture book B12 with discussion of B12 and one English activity
Session 13	Emotional Understanding Scared	Picture book A13 with discussion of A13 and one English activity	Picture book A13 with discussion of A 13 and activity A13	Picture book B13 with discussion of B13 and one English activity
Session 14	Emotional Understanding Scared	Picture book A 14with discussion of A14 and one English activity	Picture book A14 with discussion of A14 and activity A14	Picture book B14 with discussion of B14 and one English activity
Session 15	Emotion Regulation Scared	Picture book A 15with discussion of A15 and one English activity	Picture book A15 with discussion of A15 and activity A15	Picture book B15 with discussion of B15 and one English activity
Session 16	Emotion Regulation Scared	Picture book A16with discussion of A16 and one English activity	Picture book A16 with discussion of A16 and activity A16	Picture book B16 with discussion of B16 and one English activity

Appendix C

Emotion Recognition Questionnaire (ERQ)-Revision

For girls, use Susie as the character in the stories, and for boys, use Johnny. I am going to read you some stories about _____ (a girl named Susie/a boy named Johnny). Each story will be about something that happened to Susie/Johnny. I want you to tell me how you think Susie/Johnny feels about what happened to her/him. You are going to use these feeling faces to tell me your answer. Let's make sure that you know what feelings are on these faces. Lay down the four faces on the table in front of the child and leave all of them down as you point to each face, one at a time. Over the course of testing multiple children, the experimenter should randomize the order these test items are administered (Don't always put them down in the same order from one kid to another).

Scoring

2-Item is correct; 1-Positive or negative emotional words (example: "good" for "happy" would receive 1 point); 0-Entirely miss item.

<u>Expressive</u>	<u>Child's Response</u>	<u>Score (0-1-2)</u>		
How does she/he feel? (Mad)	_____	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2
How does she/he feel? (Scared)	_____	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2
How does she/he feel? (Happy)	_____	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2
How does she/he feel? (Sad)	_____	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2

Scoring

2-Item is correct; 1-Positive or negative emotional words (example: "good" for "happy" would receive 1 point); 0-Entirely miss item.

<u>Receptive</u>	<u>Child's Response</u>	<u>Score (0-1-2)</u>		
Show me the face that feels happy	_____	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2
Show me the face that feels sad	_____	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2
Show me the face that feels mad	_____	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2
Show me the face that feels scared	_____	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2

On the second set of faces, praise the child's correct responses. If the child misidentifies a face, mark them incorrect and correct the mistake by pointing to matching face. Do not label the face that the child used incorrectly. After testing, the child on the remaining faces, return to re-administer any faces that were identified the first time through until the child is able to correctly identify 4 faces. If the child is unable to master the feeling faces after several corrections and practice trials, then discontinue the test. Children can indicate answer by pointing or by saying the emotion. Display story pictures in stimulus book. For item,

read the story and lay down the faces in front of the child as you ask Did Johnny/Susie feel happy, sad, mad, or scared? Leaves the faces in place for items 2-16, point to the feelings as you say them for several items until you feel confident the child understands the task. Circle the number corresponding to child's response for each item.

Note: If the child begins to give the same response for each item, read all feeling responses before accepting the child's response but then take whatever answer is given.

Item	Story	Child's Response				
		Happy	Sad	Mad	Scared	I Don't Know/No Response
1	Johnny/Susie wanted his/her friends to come over to play. So he/she asked them, and they came to play with him/her at his/her house.	0 ●	1 0	2 0	3 0	4 0
2	Johnny/Susie's little brother broke his/her favorite toy on purpose.	0 0	1 0	2 ●	3 0	4 0
3	It's Johnny's /Susie's birthday. He/she is given a party with lots of cake and fun games to play, and present too.	0 ●	1 0	2 0	3 0	4 0
4	Johnny/Susie and his/her little sister have a pet dog. The dog is sick and is going to die.	0 0	1 ●	2 0	3 0	4 0
5	Johnny/Susie went to the zoo, and his/her aunt bought him/her a real nice balloon that he/she liked a lot.	0 ●	1 0	2 0	3 0	4 0
6	Johnny/Susie made his/her mom a vase for her birthday. John/Susie told his/her baby brother not to touch it, but his/her brother did and the vase broke.	0 0	1 0	2 ●	3 0	4 0
7	Johnny/Susie's favorite sweater that he/she liked a lot was very old and worn out. He/she had to throw it away and give it to his/her mom to get rid of it.	0 0	1 ●	2 0	3 0	4 0
8	A bad man was chasing after Johnny/Susie	0 0	1 0	2 0	3 ●	4 0
9	Johnny/Susie was dreaming about a monster in his/her nightmare.	0 0	1 0	2 0	3 ●	4 0
10	Johnny/Susie was the only one in class not to get stickers as rewards.	0 0	1 ●	2 0	3 0	4 0
11	Johnny/Susie worked hard on a picture and showed it to his/her father. His/her father really like it and said Johnny/Susie did a good job.	0 ●	1 0	2 0	3 0	4 0

12	Johnny/Susie and his/her little sister were in their room at night. It was dark, and they saw a tree outside that looked like a person with his hand about to come in the window.	0 ○	1 ○	2 ○	3 ●	4 ○
13	When Johnny/Susie went to bed, he/she thought there was something in his/her closet trying to get him/her.	0 ○	1 ○	2 ○	3 ●	4 ○
14	Johnny/Susie was trying to tell his/her mom about something exciting, but his/her little brother kept interrupting.	0 ○	1 ○	2 ●	3 ○	4 ○
15	Johnny/Susie let his/her best friend use his/her new ball. His/her friend wasn't careful and lost the ball and wouldn't give Johnny/Susie another one.	0 ○	1 ○	2 ●	3 ○	4 ○
16	Johnny/Susie's friend, who he/she really liked to play with, moved away. Johnny/Susie couldn't play with his/her friend anymore.	0 ○	1 ●	2 ○	3 ○	4 ○

Appendix D

Emotion Regulation Checklist

Student Name: _____

Dear Teachers:

Below are a series of description of children's behavior. We would like you to look at each description carefully and tell us how often the description is true of your student. Please rating on the each of the scales below where 1=very low (never true of student) and 7=very high (almost always true of student).

Items	Never	←—————→						Almost Always
1. Is a cheerful child.	1	2	3	4	5	6	7	_____
2. Exhibits wide mood swings (child's emotional state is difficult to anticipate because he/she moves quickly from positive to negative moods).	1	2	3	4	5	6	7	_____
3. Responds positively to neutral or friendly overtures by adults	1	2	3	4	5	6	7	_____
4. Transitions well from one activity to another; does not become anxious, angry, distressed or overly excited when moving from one activity to another.	1	2	3	4	5	6	7	_____
5. Can recover quickly from episodes of upset or distress (for example, does not pout or remain sullen, anxious or sad after emotionally distressing events).	1	2	3	4	5	6	7	_____
6. Is easily frustrated.	1	2	3	4	5	6	7	_____
7. Responds positively to neutral or friendly overtures by peers.	1	2	3	4	5	6	7	_____
8. Is prone to angry burst/tantrums easily.	1	2	3	4	5	6	7	_____
9. Is able to delay gratification.	1	2	3	4	5	6	7	_____
10. Takes pressure in the distress of others (for example, laughs when another person gets hurt or punished; enjoys teasing others).	1	2	3	4	5	6	7	_____
11. Can modulate excitement in emotionally arousing situations (for example, does not get "carried away" in high-energy play situations, or overly excited in inappropriate contexts).	1	2	3	4	5	6	7	_____
12. Is whiny or clingy with adults.	1	2	3	4	5	6	7	_____
13. Is prone to disruptive outbursts of energy and exuberance.	1	2	3	4	5	6	7	_____

14. Respond angrily to limit-setting by adults.	1	2	3	4	5	6	7	_____
15. Can say when s/he is feeling sad, angry or mad, fearful or afraid.	1	2	3	4	5	6	7	_____
16. Seems sad or listless.	1	2	3	4	5	6	7	_____
17. Is overly exuberant when attempting to engage others in play.	1	2	3	4	5	6	7	_____
18. Display flat affect (expression is vacant and inexpressive; child seems emotionally absent).	1	2	3	4	5	6	7	_____
19. Responds negatively to neutral or friendly overtures by peers (for example, may speak in an angry tone of voice or respond fearfully).	1	2	3	4	5	6	7	_____
20. Is impulsive.	1	2	3	4	5	6	7	_____
21. Is empathic towards others; shows concern when others are upset or distress.	1	2	3	4	5	6	7	_____
22. Displays exuberance that others find intrusive or disruptive.	1	2	3	4	5	6	7	_____
23. Display appropriate negative emotions (anger, fear, frustration, distress) in response to hostile, aggressive or intrusive acts by peers.	1	2	3	4	5	6	7	_____
24. Displays negative emotions when attempting to engage others in play.	1	2	3	4	5	6	7	_____

Appendix E

Head Start Competence Scale-Parent Version

We would like to learn how your child manages his/her feelings and how well he/she understands emotion. Please write the child's full name in the blank space below. Then read the following statements about children's behavior and use the response scale to indicate whether that child does these things: NOT AT ALL WELL, A LITTLE WELL, MODERATELY WELL, or VERY WELL. Circle the number that matches your answer and leave the line in the right column blank.

		(child's full name)				
Response scale:		Not at all well	A little well	Moderately well	Very well	
1	Resolves problems with friends or brothers and sisters on his/her own.	1	2	3	4	_____
2	Understand others' feelings.	1	2	3	4	_____
3	Share things with others.	1	2	3	4	_____
4	Identifies feelings appropriately.	1	2	3	4	_____
5	Recognize the needs of others.	1	2	3	4	_____
6	Accept things not going his/her way.	1	2	3	4	_____
7	Listens to others point of view.	1	2	3	4	_____
8	Thinks before acting.	1	2	3	4	_____
9	Give suggestions without being bossy	1	2	3	4	_____
10	Copes with anger or frustration	1	2	3	4	_____
11	Express his/her feelings appropriately	1	2	3	4	_____
12	Waits patiently while you are on the phone or occupied	1	2	3	4	_____
13	Copes with sadness	1	2	3	4	_____
14	Copes with disappointment	1	2	3	4	_____
15	Stops and calms down when he/she is upset	1	2	3	4	_____
16	Emotional reactions fit whatever situations he/she faces	1	2	3	4	_____

Appendix F

Book Selection for Experimental Groups One and Two

Session	Topic	Treatment	Title of Books	Age
Session 1	Emotional Understanding Happy	Picture Book A1	<i>What Makes Me happy?</i> (Liu, 2003)	Years: 2-9
Session 2	Emotional Understanding Happy	Picture Book A2	<i>Happy Birthday, Davy</i> (Lai, 2001)	Years: 3-7
Session 3	Emotion Regulation Excited	Picture Book A3	<i>I Am Excited</i> (Lin, 2003a)	Years: 3-9
Session 4	Emotion Regulation Excited	Picture Book A4	<i>Five Minutes Peace</i> (Li, 1999)	Years: 3-8
Session 5	Emotional Understanding Sad	Picture Book A5	<i>When I Feel Sad</i> (Huang, 2005a)	Years: 2-9
Session 6	Emotional Understanding Sad	Picture Book A6	<i>Why So Sad, Brown Rabbit?</i> (Chen, 2002)	Years: 3-6
Session 7	Emotion Regulation Sad	Picture Book A7	<i>I'll Always Love You</i> (Chao, 1999)	Years: 3-8

Session 8	Emotion Regulation Sad	Picture Book A8	<i>Spit the Seeds</i> (Lee, 2001)	Years: 3-8
Session 9	Emotional Understanding Angry	Picture Book A9	<i>When I Feel Angry</i> (Tsai, 2005)	Years: 2-9
Session 10	Emotional Understanding Angry	Picture Book A10	<i>When Sophie Gets Angry-Really, Really Angry</i> (Li, 2001)	Years: 2-7
Session 11	Emotion Regulation Angry	Picture Book A11	<i>I Am Furious</i> (Lin, 2003b)	Years: 3-9
Session 12	Emotion Regulation Angry	Picture Book A12	<i>I've become a fire-breathing dragon</i> (Lai, 1996)	Years: 3-8
Session 13	Emotional Understanding Scared	Picture Book A13	<i>When I Feel Scared</i> (Huang, 2005b)	Years: 2-9
Session 14	Emotional Understanding Scared	Picture Book A14	<i>The Crocodile and the Dentist</i> (Gomi, 1998)	Years: 3-7
Session 15	Emotion Regulation Scared	Picture Book A15	<i>I Am Scared</i> (Lin, 2003c)	Years: 3-9
Session 16	Emotion Regulation Scared	Picture Book A16	<i>Jessica and the wolf: A Story for Children Who Have Bad Dreams</i> (Huang, 1998)	Years: 3-8

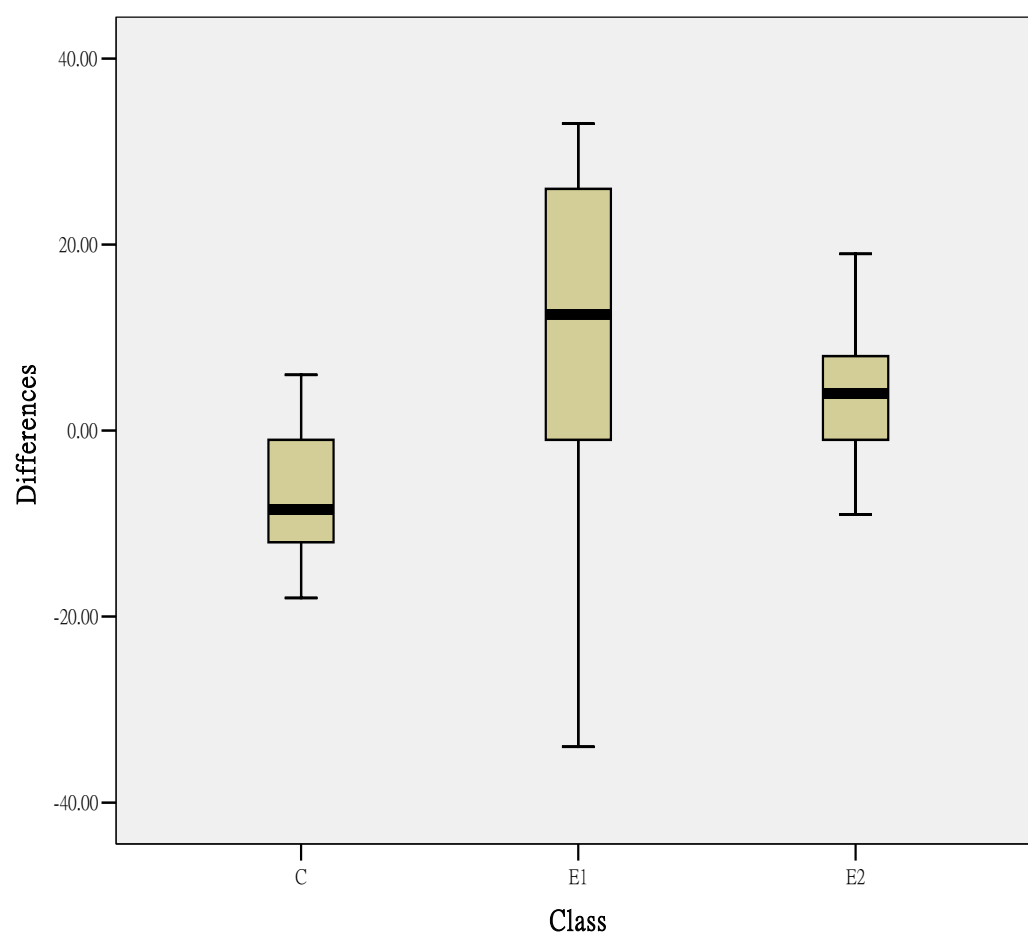
Appendix G

Book Selection for the Control Group

Session	Treatment	Title of Books	Age
Session 1	Picture Book B1	<i>Lion</i> (Li, 1996)	Years: 3-6
Session 2	Picture Book B2	<i>Human's best friends-Dogs</i> (Liu & Wang, 2004)	Years: 3-6
Session 3	Picture Book B3	<i>Dragonfly</i> (Sun, 1996)	Years:3-6
Session 4	Picture Book B4	<i>Paradise fish</i> (Wang, 1996)	Years: 3-6
Session 5	Picture Book B5	<i>Ants</i> (Wang, 2000a)	Years: 3-6
Session 6	Picture Book B6	<i>Giraffe</i> (Yang, 1992)	Years: 3-6
Session 7	Picture Book B7	<i>Snail</i> (Chen, 1993)	Years: 3-6
Session 8	Picture Book B8	<i>Goat</i> (Sun, 1999)	Years:3-6
Session 9	Picture Book B9	<i>Rabbits</i> (Ho, 1992)	Years: 3-6
Session 10	Picture Book B10	<i>Ostrich</i> (Sun, 1995)	Years: 3-6
Session 11	Picture Book B11	<i>Squirrels</i> (Liu, 2003)	Years: 3-6
Session 12	Picture Book B12	<i>Go to See Whales</i> (Wang, 2003)	Years: 3-6
Session 13	Picture Book B13	<i>Koala</i> (Wang, 2000b)	Years:3-6
Session 14	Picture Book B14	<i>Baby Pig</i> (Sun, 1994)	Years: 3-6
Session 15	Picture Book B15	<i>Hippo</i> (Liu, 2001)	Years: 3-6
Session 16	Picture Book B16	<i>Zebra</i> (Liu, 1998)	Years:3-6

Appendix H

Box and Whisk Plots for Three Treatment Groups



VITA

Min-Ju Tsai

EDUCATION

- Ph.D. in Curriculum and Instruction September, 2005-May, 2008
Major Area: Early Childhood Education
Supporting Field: Counselor Education
The Pennsylvania State University
- M.ED. in Curriculum and Instruction September, 2004-August, 2005
Major Area: Early Childhood Education
The Pennsylvania State University
- B.A. in Early Childhood Education September, 1999-June, 2003
Ping-Tung Teachers' College, Ping-Tung, Taiwan

PROFESSIONAL EXPERIENCE

Intern

- Sia Gang Public Kindergarten, Kaohsiung, Taiwan July, 2003- June, 2004
- Taught 20 kindergarteners from age 4 to 5 in class
 - Taught children reading, writing, and culture understanding
 - Designed curriculum and teaching plans for students
 - Responsible administration work and communication

PRESENTATION EXPERIENCE

- Tsai, M. J. (2008, March). *Guiding Taiwanese children's' emotion regulation through emotional learning*. Paper presented at the meeting of 2008 Harvard Graduate School of Education Student Research Conference, Cambridge, MA.
- Tsai, M. J. (2008, March). *Helping children express grief through storytelling*. Paper presented at the meeting of 2008 Harvard Graduate School of Education Student Research Conference, Cambridge, MA.
- Tsai, M. J. (2007, January). *Effects of Taiwanese children's emotional development as implemented through preschool curricular on emotional learning*. Paper presented at the meeting of Hawaii International Conference on Education, Honolulu: HI.
- Tsai, M. J. (2005, October). *Intermarriages in Taiwan: Methods of working with and educating the immigrant females and their children*. Paper presented at the meeting of Mid-Western Educational Research Association Annual Conference, Columbus: OH.
- Tseng, H. Y., & Tsai, M. J. (2004, October). *Self-management and Second Language Learning*. Mid-Western Educational Research Association Annual Conference. Columbus: OH.