I Feel Better With Music: Arts-based Educational Research Investigation of Curriculum for Preschoolers Diagnosed with Cancer using Educational Theatre as a Learning Medium

A Film-based Dissertation

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ABSTRACT

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for Preschoolers Diagnosed with Cancer using Educational Theatre as a Learning Medium

(Under the direction of Dr. Barbara Day (Committee Chair), Dr. Mary Stone Hanley, Dr. Frank Brown, Dr. Gary Duncan, and Dr. Bonnie Raphael.)

The purpose of this study was to investigate how an arts-based curriculum produces an educational effect on preschoolers diagnosed with cancer using music and educational theatre as a learning medium. The central research question is: What is the arts-based curriculum affect on critically ill preschool-aged children with cancer? Two important aspects of the primary question include: How does the arts-based curriculum and accompanying tool kit affect children’s understanding of disease and treatment information, coping skills, and behavior management techniques, and how do children diagnosed with cancer respond to specific stress-reducing elements?

The teacher/artist/researcher investigated using an arts-based educational research methodology including film editing to analyze and interpret curriculum affect from personal perspectives. The study emphasized three children’s responses and personal experiences during and after the educational phenomena. The students’ ages ranged from four through five years; each child had a different cancer and stress-reduction needs. The film-based dissertation provided the results of the study presented in a visual arts film format with supporting details in the written segment.
Due to the short duration, varying lengths in implementation, and small number of subjects, the research provided limited but important preliminary evidence to suggest that children may learn and benefit from stress-reducing techniques provided in the *I Feel Better With Music* curriculum. Results indicated some affect during implementation of stress-reducing experiences. Results also show positive curriculum effect using music as a self-regulating and learning tool, and as an aid to stress-reduction. However, there was little evidence of learning in other areas of the curriculum, disease and treatment information, coping skills and behavior management. Parents attributed these findings to the children’s previous knowledge in part. Thus, parents expressed belief that curriculum implementation at initial diagnosis, instead of during treatment, may offer a more significant impact in the children’s understanding of disease and treatment information. In addition, results of the study provided information about how children responded to music-assisted learning techniques and educational theatre as a learning medium. This body of work supports expansion of complex interdisciplinary research including curriculum and instruction, health education, children’s educational theatre, music-assisted preschool learning, and arts-based educational research.
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I Feel Better With Music

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CHAPTER I
INTRODUCTION

Figure 1: Mother Goose and Gwenny Blossom arrive, from I Feel Better With Music. (Illustrations by Lisa Gaither)

Childhood cancer is the number one diagnosed killer of children ("Candlelighters Childhood Cancer Foundation" (CCCF), 2008). One child in 330 will develop cancer by age 20, and 35 percent of children diagnosed will die (CCCF). At a time when their peers are beginning pre-kindergarten educational services, preschoolers with cancer are undergoing disease-related changes, chemotherapy, and radiation treatments. Childhood cancer is often treated aggressively with a combination of chemotherapy, radiation and surgery. Adverse side effects from these treatments substantially affect bodies at an important stage of growth
Chemotherapy, toxic to the human body, causes physical and emotional trauma. Children understand little about the disease or treatment and have less control than adults over their situation. They often feel frustrated and angry, and experience high anxiety.

Disease and treatment information, preventions, and interventions help literate cancer victims ("National Childhood Cancer Foundation and Children's Oncology Group," 2008). However, for preschool children there is little educational material available ("National Children's Cancer Society," 2008). Although preschoolers vary dramatically in language and emotional development, they have complex cognitive reasoning and concepts about illness (Kalish, 1996). Prior to the appearance of extreme anxiety symptoms, assessment and therapy is uncommon for psychiatric symptomology or child medical trauma. Without age-appropriate interventions, the effect of medical trauma can be intense, detrimental, and long-lasting, interfering with a child's development (Melnyk et al., 2004). Unfortunately, little has been developed to educate preschoolers about cancer (Melnyk, Alpert-Gillis, Hensel, Cable-Beiling, and Rubenstein, 1997). Practicing prevention efficiently reduces health risk factors for adults and older children diagnosed with cancer. Logically, the same would apply for preschool children.

Statement of Purpose

This study investigated how the arts-based curriculum and tool kit of materials affected young children diagnosed with cancer in a children’s hospital system. The research explored curriculum effect on children’s understanding of disease and treatment information, coping skills, and behavior management. The curriculum focused on reduction of stress that may lead to medical trauma. The inquiry into stress related elements of the curriculum revealed important information about child engagement in relation to learning stress-reducing
concepts. The study provided valuable insight about how children with cancer learn skills for self-control and self-efficacy. This comprehensive and in-depth study may positively impact health education for children with cancer by addressing risks for possible medical trauma.

I implemented the curriculum in a children’s educational theatre participatory style performing as a teaching artist in the character of Mother Goose. The five-session format covered such topics as healthy nutrition, eating techniques to overcome nausea, relaxation techniques, positive imagery and self-concept, self-efficacy in the management of the child’s environment. In addition, there was a focus on healthy behaviors, behavior management and use of music to change moods to minimize anger, lethargy and/or depression. As Mother Goose using the contents of the tool kit, I modeled appropriate stress reducing strategies. This educational intervention focused on medical trauma issues related to stress that could lead to posttraumatic stress disorder.

Background and Assumptions

I conceived of an intervention for children with cancer after a cherished two-year-old became diagnosed with leukemia, a cancer of the blood. The next year, the child began to display distressing behaviors. My attempts to find children’s books or videos to help the child understand his environment, disease, and treatment process proved fruitless and frustrating. Therapeutically designed interventions and health educational materials for children six through adult were available for victims who could read; however, there was a significant lack of support or materials geared to help younger children cope. I recognized the need for an intervention, one based on my assumptions about educational theatre.

An assumption is something you believe to be true or a realistic expectation developed through experience. My beliefs in teaching young children embraced a leap of
faith in the assumptions I held about the power of educational theatre as a learning medium, experiential learning in child development, and music-assisted preschool learning. In addition, I continue to support a philosophical view of phenomenology, which holds a humanistic approach to psychology and individualistic behavior. It also describes the development of reality within the experience of an event that shapes an individual’s being (Driscoll, 2000). I based my dissertation project on this assumption: if shown how to develop and master coping skills and behavior management techniques, children might feel better with music.

The I Feel Better With Music program employed the idea that intervention provides better opportunities for quality of life. I believe that arts-based curriculum and instruction and educational theatre hold substantial benefits for the development of problem solving skills for self-care. A possible beneficial relationship between an arts-based curriculum and reduction in risk factors concerning stress occurred to me. The assumptions I held led me to suspect that an intervention of this sort would beneficially impact preschool children with cancer. The benefits gained would continue to serve them.

Research Question

The central research question: What is the arts-based curriculum affect on critically ill preschool-aged children with cancer? In the use of the word affect, a term encompassing mood and emotions, I mean that I was examining the curriculum affect as it acted on or produced an effect or change in areas of affective learning and behavior connected to delivery of health education content. I focused on emotional responses to understand how stress-reducing elements of the curriculum affected a child’s emotional state during implementation. The study explored the central premise that might be a beneficial
relationship between an arts-based health education curriculum intervention for preschoolers diagnosed with cancer and reduction of stress. Two important aspects of the primary question included: What is the curriculum affect on children’s understanding of disease and treatment information, coping skills, and behavior management techniques, and how do children diagnosed with cancer respond to specific stress-reducing elements of the arts-based curriculum and tool kit?

Conceptual Framework

The conceptual framework of the arts-based curriculum included three interconnected disciplines: health education, educational theatre, and music-assisted preschool learning (Figure 2). “Health Education” was the aspect of the arts-based curriculum that concerned health risk prevention and provided disease and treatment information, coping skills, and behavior management techniques to encourage healthy behaviors. Healthy behaviors included self-regulation of stress-reducing skills for children learning how to manage stress with the use of music. “Music-assisted Preschool Learning” consisted of the music developed to use as a learning tool, age-appropriate interactive music therapy techniques, teaching children how to self-regulate using music selections, and early childhood arts-based activities. These three educational areas collectively form the foundation of the curriculum. In addition, I developed the tool kit to accompany the curriculum. These work together to encourage self-efficacy and self-regulation to increase the children’s emotional and physical comfort.

Figure 2 shows the intersection of the three educational concepts, underpinned by social Learning and social cognitive theories. The conceptual circles overlap to form the area that represents the theoretical underpinning and concepts of the arts-based I Feel Better With
Music curriculum. Figure 2 represents the relationships between concepts in the conceptual framework.

![Conceptual Framework for the curriculum.](image)

Figure 2: Conceptual Framework for the curriculum.

Social Learning Theory and Social Cognitive Theory structure the theoretical frame for the arts-based curriculum focused on learning and development that takes place in a
social context (Bandura, 1997). The circle around the Venn diagram in Figure 2 represents this conceptual area. Social Learning Theory (SLT) relates to modeling or vicarious learning techniques that include: observation learning, attention, motivation, imitation, and reproduction of behavior in triadic reciprocal determinism. The principles of triadic reciprocal determinism (see Figure 3) are driven by the interaction between a student, behavior, and environment (Bandura, 1973). Bandura developed further concepts of self-efficacy, self-regulation and the cognitive ability to apply prior knowledge and concepts to existing situations, which he termed Social Cognitive Theory (SCT) (Bandura, 1986). Reinforcement and consequence are also important directly and in vicarious learning of social contextual situations (Bandura, 1977).

Figure 3: Triadic Reciprocal Determinism

SLT and SCT underpin the interdisciplinary concepts supporting the arts-based curriculum in this investigation. SLT and SCT are frequently used theories in health education because they acknowledge social context in learning and development of new behaviors. Two fundamental ideas in health education stem from an ecological perspective (environmental factors), which help to identify vantage points for the implementation of programs. These two key ideas represent the basic concepts of behavioral change and reciprocal determinism in SLT and SCT. First, social levels of influence affect health-related
behaviors. Secondly, behavior between individuals and their environment is dynamic in reciprocal causation (1997).

The music-assisted preschool learning section blended interactive music strategies and music therapy techniques. This section focused on music as a multi-sensory instructional approach, a mnemonic device for learning information, and to focus attention. The music therapy techniques centered on the development of self-awareness, confidence, coping skills, and behavior and pain management. Music methods increased achievement of non-musical health education goals. They also provided a way for the children to recognize and modify moods and environment. Music became another way of knowing. The focus was on the development of critical thinking skills and problem-solving through the arts (music and dramatic play), which may enhance cognitive development (Eisner, 1994). Bandura’s theoretical work also acknowledges cognitive development, behavior, and personal choice (Bandura, 1989).

Medical Definitions

The following definitions clarify the use of medical terminology in this study. They specifically address health issues—education, preventions, interventions—and include the following: Cancer, Affect, Anxiety, Medical Trauma, Posttraumatic Stress Disorder, and Prevention.

Cancer: An uncontrolled growth of abnormal cells that spread (metastasize) to other healthy tissue or organs when unrestrained or untreated. Unchecked cancer causes death (Ollendick & Schroeder, 2003; Taublieb, 2000).

Affect: Affect describes an emotional state (Taublieb, 2000).
Anxiety: A psychological condition caused by inadequate coping with stressors, as in reactions to environmental factors perceived as threats to safety and security (McGuigan, 1999).

Medical Trauma: Includes trauma associated with chronic or life-threatening illness or painful or invasive medical procedures. Trauma in reference to injury or accident is not a formal portion of this definition. Examples include being told that one has a serious illness and procedures such as chemotherapy and radiation treatment. In young children, trauma also includes drastic change of lifestyle, separation issues, and self-concept distortions (Fernandez-Ballesteros, 2003).

Posttraumatic Stress Disorder: In 1994, the fourth edition of the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (DSM) (Rapoport & Ismond, 1996) introduced Posttraumatic Stress Disorder (PTSD) as a child psychiatric disorder. The disorder precedes mental disease and characteristically impairs normal cognitive, behavioral, or emotional function. Recent awareness and emerging findings indicate that life-threatening health conditions, or medical trauma, may also cause symptoms of PTSD in children (National Children's Traumatic Stress Network, 2008).

Prevention: The reduction of possible adverse future events concerning health (as opposed to therapy which treats an existing illness) ("North Carolina Prevention Partners," 2004).

Education Definitions

In addition to medical terminology, I use some arts-in-education terms that overlap or have multiple meanings. The following definitions for educational terminology are: art as a
way of knowing, arts-based curriculum, arts-based research, educational theatre, and theatre in education techniques.

Art as a way of knowing: “There are multiple ways in which the world can be known: Artists, writers, and dancers, as well as scientists, have important things to tell us about the world (Eisner, 1991, p.7).”

Arts-based Curriculum: The arts specialist integrates art and teaching into various forms of non-traditional instructional methods (Cornett, 2003). This curriculum strategy gives preschoolers an alternative way of knowing that enhances the construction of knowledge in a meaningful and familiar mode.

Arts-based Research: Arts-based research incorporates visual, narrative, literature, and performing arts in varied and innovative ways as analysis methodology and representation (Barone & Eisner, 1997).

Educational Theatre: Educational theatre encompasses many forms of theatre experiences for an educational purpose (Swortzell, 1990). This curriculum includes children’s educational theatre as the principal component, defined as interactive theatre using characters. The curriculum emphasizes improvisation, which provides a dual function as a theatre in education technique.

Theatre in Education Techniques (TIE): Includes process drama, drama in education, creative drama, and improvisation, which often overlap to enhance the learning experience. Improvisation is an unscripted dialogue or acting engagement. This popular dramatic technique proves versatile to serve this curriculum with a variety of therapeutic purposes. Improvisation acts as a distancing tool for dramatic play that otherwise could be emotionally disturbing. This technique establishes trust, a means to reliably enter into the children’s
sensitive areas to teach self-regulation of feelings (problem-solving). Content repetition is more engaging and fun while using improvisation to develop coping skills.

Summary

Preschoolers diagnosed with cancer are challenged and distressed by the disease and treatment. They have no formal means to learn to cope. This study was a complex arts-based project that used educational theatre as a learning medium. The curriculum centers on health education, emphasizing the use of music and theatre. The research was an investigation of the curriculum and accompanying tool kit used to teach disease and treatment information, coping skills, and behavior management techniques to preschool children with cancer. During the course of the study, I examined stress-reducing elements, how children responded to these elements, and how they affected the behavior of children.

Chapter I contained the statement of the problem, research questions, and definitions of terminology. In addition, the chapter included background and assumptions, the conceptual framework and the relationships between concepts for this study. Chapter II summarizes related research and scholarship.
CHAPTER II
LITERATURE REVIEW

Introduction

This review of the literature explores health education and the significance of learning through the arts as the foundation for arts-based curriculum and instruction. Arts-based curriculum and instruction informs, educates, and assists in the assimilation and processing of vital information (Cornett, 2003). The exploration includes three interdisciplinary concepts of health education, educational theatre, and music-assisted preschool learning. In addition, I incorporated key systems of beliefs and tenets associated with cancer and treatment, health promotion, arts-based curriculum and instruction, and drama and music therapy. Also included is a brief overview of Social Learning and Social Cognitive Theories by Bandura.
(1986, 2004a) used in health promotion in order to articulate the theoretical underpinning of my work. This coverage of information establishes the theoretical framework for the health education prevention as an arts-based curriculum seen in Figure 2 (p. 6) as well as the theoretical framework for the study.

Health Education

Health education informs, educates and helps patients assimilate and process crucial information for well being. This review includes information on cancer, its treatment, and how it relates to issues of stress that may lead to medical trauma and posttraumatic stress disorder. In addition, I present studies concerning theatre-based health-oriented initiatives for preschool-aged children. Social Learning and Social Cognitive Theories by Bandura (1973, 1986, 2004a, 2004b) play an important role in health promotion as theories of learning and development. This information established a theoretical foundation to create an arts-infused health prevention program. Health studies encompassing drama-in-education techniques and drama therapies contribute.

Survival in children with cancer is a relatively new accomplishment within the last twenty or so years, attributed to strides in medical research as well as a child’s ability for resiliency (Duenwald & Grady, 2003). Resiliency is the ability to rebound from illness or traumatic experiences (Masten, 2001). Research and clinical experience shows young children as deeply affected by trauma, and evidence shows symptoms of medical trauma early in medical treatment scenarios for critically or chronically ill patients (Saxe, G. et al., 2003).

Disease and treatment for cancer may produce severe stress-related behavior that can lead to medical trauma (Duenwald & Grady, 2003). Duenwald and Grady draw attention to
toxic effects from treatments like chemotherapy and radiation. Physicians may use these therapies and surgery in order to kill or remove cancerous cells. The authors state that treatment often includes intensive medication and painful administration, causing severe physical and emotional reactions that affect the immune system, making many children more susceptible to sickness and disease.

Cancer and medical treatment may cause physical effects in children that vary from temporary to permanent and include vomiting, fatigue, hair loss, procedure pain, disfigurement, brain damage, and cognitive and neurological reduction or permanent loss (Duenwald & Grady, 2003). Grief, fear, and anxiety stem from psychological issues including loss, safety, distorted self-image and self-concepts, fear of separation, and death (Egger & Angold, 2004; Saxe et al., 2003). Clinicians may suggest interventions at times of critical stress such as diagnosis of cancer or initiation of treatments. Other considerations include disruption of schooling and emerging displays of prolonged or extreme anxiety levels (Ollendick & Schroeder, 2003).

High anxiety levels are common in preschoolers with cancer. “Anxiety lowers resistance and depletes energy which can lead to increased risk for a variety of health conditions (Mcguigan, 1999, p.19).” Anxiety is an overarching classification that includes separation, avoidant, and overanxious disorders (Ollendick & Schroeder, 2003). Some children display multiple symptoms of anxiety, including fear of immediate or permanent harm, separation, reluctance to attend procedures or therapy, refusal to sleep unless an adult is in company, nightmares, temper tantrums, inappropriate displays of anger, excessive crying, self-induced vomiting and panic attacks (McGuigan, 1999; Rapport & Ismond, 1996).
Medical trauma is an emerging field. Neither the effects on children nor the guiding therapy principles are fully understood, creating gaps in knowledge for clinicians (Melnyk et al., 2004, Saxe et al., 2003). Stress is the underlying factor for anxiety and traumatic symptomology. However, clinicians rarely assess young children for displays of symptomatic behavior (Melnyk et al., 1997; Ollendick & Schroeder, 2003). Many health professionals are unaware of medical trauma and possible risk behavior for posttraumatic stress disorder (PTSD) which may contribute to oversight of assessment when symptomatic displays occur (Harris, Fairbank, and Putnam, 2004; Melnyk et al., 2004). Some may overlook symptoms because of existing notions that young children are resilient to traumatic events, or that these displays of behavior are common due to early stages of development (Melnyk et al., 2004). In addition, diagnosis is especially challenging in preschoolers due to their early stages of language and communicative skill development (Egger & Angold, 2004; Melnyk et al., 1997). There is a need for opportunities in health education to teach coping skills and to develop empowerment for critically ill young children and parents. Prevention is important to lessen the risk of additional serious medical diagnosis of psychiatric disease and disorder (Harris et al., 2004; Melnyk et al., 2004).

*Health education studies.*

While little there is little research to cite concerning health-based educational behavioral program effectiveness, leading studies do address interventions for reducing stress and managing behavior. The following two studies use preventive measures to minimize risk for medical trauma that may lead to PTSD. These studies acknowledge that parents may also become traumatized by the child’s medical situation and that they are also susceptible to
PTSD. Both of the studies use a program design that treats the maternal parent and child as a unit, but the focus was on educating the parent about how to manage the child’s behavior.

A pilot study for the Creating Opportunities for Parent Empowerment (COPE) (Melnyk et al., 1997) intervention focused on helping mothers cope with critically ill children admitted for hospital stays. Study developers used mediated behavioral intervention sessions to deliver information. The study had small groups with a total of thirty mothers and their children, ages one through six, with sixteen in the experimental group and fourteen in the control group. Phase I of the treatment consisted of providing audiotaped and written information to the mothers about child behavioral displays of withdrawal, aggression, and regression. The information included suggestions concerning the parental role in facilitating the child’s hospitalization adjustment, such as bringing familiar items from home, and tips about providing support during intrusive procedures.

Phase II consisted of a workbook with three activities aimed at providing coping skills through puppetry, medical play, and the creation of an “I am special” book. The mothers in the experimental group reported less negative behavioral change in their children than those reported in the control group. Mothers in both the experimental and control groups reported an equal amount of PTSD symptoms displayed by the children. However, the experimental group reported fewer parental PTSD symptomatic displays. This suggests that the treatment to enhance parental coping skills to reduce stress for their children may reduce stress for mothers. Due to the small size of the groups, the results were not statistically different between the control and treatment group. However, the report of qualitative information from the pilot study supported positive results suggesting less stressful outcomes for both child and parent after treatment. The authors call for more research in this area.
In the subsequent COPE study (Melnyk et al., 2004), the authors further developed the educational-behavioral intervention program. The implementation expanded the two original phases and added a third. Hospital staff helped parents use scenarios from the accompanying workbook. The new Phase III, called a booster intervention, consisted of a five-minute script used in a telephone call two-three days after discharge. The call provided information about post-discharge emotions and behavior, suggested parental behaviors to facilitate adjustment, and encouragement to continue activity engagement with the Phase II workbook scenarios. The study investigated program effects on 174 critically ill children, ages two to seven years, and their mothers. Assessment and evaluation included instruments constructed from PTSD measurements.

The program provided direct information for parental management of emotional scenarios during medical care. The workbook included three scenarios concerning emotional ranges typical for children receiving intensive medical care: (1) puppetry to encourage exploration of emotion, (2) therapeutic medical play to explore medical experiences, and (3) Jenny’s Wish, a book about a girl coping positively with traumatic medical stress in her health situation. Findings suggest that mothers and children in the experimental group had fewer child adjustment problems with treatment in comparison to the control group.

The relevant theatrical components of the drama therapy techniques of the study include puppetry and dramatic play. The study implemented these techniques using a parent rather than a clinician. The arts-based components of literature and visual arts in storybook form serve as a catalyst for reinforcing learning. In addition, the focus on bringing familiar items from home to structure the child’s adjustment to the hospital environment suggests that
familiar items may be an important stress-reducing factor. These important elements helped me formulate my curriculum structure with the accompanying tool kit.

Limitations cited in the study include weaknesses in the twelve-month implementation and follow-up due to differences in time distribution, varied strategies for implementation and support, and the threat to validity due to variations in age. Questions raised concerned cost effectiveness and whether fathers or caretakers would be as effective as mothers.


Social Learning Theory (SLT) and Social Cognitive Theory (SCT) (Bandura, 2004a, 2004b) are learning theories often used in health promotion. These provide a systematic way of understanding and explaining behavioral change. The theories include sets of concepts and definitions applicable to health education because they illustrate the relationship between social variables in learning and development. These theories establish the foundation of my theoretical framework for my study as it pertains to behavioral change.

Bandura (1973) says that SLT focuses on learning that must take place in a social context. He argues that SLT explains human behavior in terms of continuous reciprocal interaction between cognitive, behavioral, and environmental influences, called triadic reciprocal determinism. He developed SCT with further concepts of self-regulation, self-efficacy, and the cognitive ability to apply prior knowledge and concepts to existing situations (Bandura, 1986). Cognitive factors include previous and current knowledge acquisition, expectations, and attitudes. He argues that environmental factors include social norms, social interaction, and influence on others. In addition, behavior factors include skills, self-efficacy, and stage of development. Moreover, reciprocal determinism is key in both
SLT and SCT, a dynamic system of triadic reciprocal causation between child, environment, and behavior that causes behavioral change.

SLT and SCT are rooted in the interaction between a student, behavior, and learning environment. Theory principles help to explain behavioral change (Bandura, 1986). Bandura argues that important aspects of learning include: observational learning, vicarious learning, self-efficacy, self-regulation, and cognition development. Observational learning focuses on attention, retention, motivation, and reproduction (Bandura, 1973). SLT, best described as “observational learning”, encompasses both cognitive and behavioral structures of developmental theory (Bandura, 1977). Bandura explains it best:

Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action (p.22).

In health promotion for posttraumatic recovery, emergent behavioral constructs described in SCT (Bandura, 2004a, 2004b) are self-concept, self-regulation, and self-efficacy. Bandura argues that self-concept underlies and motivates beliefs of capabilities. He explains self-regulation as the ability to regulate behaviors consistently. Self-efficacy, he says, is the belief of one’s capabilities in the performance of behaviors. According to Brock (2004), building self-efficacy for health promotion increases the chance of maintaining a positive behavioral change. She says that obtaining small goals reinforces positive actions and providing support when there is failure builds good prevention behaviors.

SLT and SCT include reinforcement as a principle of importance to young children’s observational learning. Reinforcement may form directly or by vicarious learning within social contextual situations (Bandura, 1973). Bandura argues that different aspects of
observational learning take place in different stages of the child’s development. The child’s stage of development affects the ability to comprehend social situations and understand that acceptable social behavior varies within similar social contexts. Models from a child’s environment – including media such as television, videos, and books – influence the child who observes behavior and the subsequent consequences. He states that the child uses cognitive abilities, previous knowledge, self-standards, and personal preferences to draw conclusions from these observations. Carroll and Bandura (1982) also contend that demonstration of activities (modeling) is important for learning human movement and motor development in an observational learning process (reproduction). Effective observational learning requires adequate cognitive development of conceptual representation for symbolic coding and rehearsal and they write, “Discrepancies between cognitive representation and response execution serve as cues for identifying and correcting errors (p.165).”

Contemporary health promotion includes ecological notions about addressing behavioral change. According to Rimer and Glanz (1997), an ecological perspective emphasizes the interaction between multiple physical and social environments. They describe the social environment as including health professionals as well as family, friends and community. The social environment affects health because it affects behavior. They add that many variables in social and cultural context differ in function. Social norms vary within environmental factors such as family, socio-economics, race, religion, education, and location. Health-promoting modeled behavior, when adopted by the child, should produce outcomes of self-efficacy and self-control in reproducing positive behavior consistently (Bandura, 2004a).
SLT and SCT structure is practical and useful in that it informs curriculum design and evaluation, helps to explain behavioral change and has proven effective in health education promotion (Bandura, 2004a, 2004b; Brock, 2004; Rimer & Glanz, 1997).

Learning through the Arts

Learning through the arts is significant as the foundation for arts-based curriculum and instruction is key to my study. Here, I review literature that discusses the arts as integral to human understanding, its use in learning and development, and how it relates to notions of social and individual learning.

Learning through the arts is a complex process of understanding, expression, and communication of human experience (Catterall, 2005; Dewey, 1934). This learning process is conducive to the broadening and deepening of life skills for inquiry. In addition, this process enhances expression of subjective understanding in daily life (Dewey, 1934; Eisner, 1991). The arts can enrich complex human learning. This cognitive process occurs across multiple domains of interrelated personal competencies required for success in life. Learning through the arts involves sensory input, a conscious and subconscious cognitive assimilation process that may involve metacognition (thinking about thinking), and a neuro-physiology dynamic that occurs in the brain for transformation to knowledge (Bransford, Brown, & Cocking, 2000; Catterall, 2005; Eisner, 2002; Jensen, 2001). Jensen argues that arts can enhance emotional, immune, and cognitive neurobiological systems.

Bransford et al. (2000) explains that people develop competencies using cognitive processes and transfer of learning. Sensory qualities tend to generate symbolic forms called “art,” which are cultural forms of representation (Eisner, 1994). Bransford et al. argues that abstract representations of knowledge can help promote transfer, which has implications for
education. Catterall (2002a) explains, “Transfer denotes instances where learning in one context assists learning in a different context (p. 151).” Catterall (2002b) refers to transfer as reciprocal processes that involve multiple interactions across domains and disciplines that transform understanding of self, others, and the world. He (2005) argues that art is about thinking and emotions that interact with the general capacities of the brain in a combination of social (interpersonal) and inner (intrapersonal) conversations and silence. He emphasizes that these conversations align with social-mediated theories of knowledge acquisition.

Catterall (2002b) believes that learning through the arts encompasses more than the inner and social conversational levels of transfer and that arts learning transfers to academic subjects as well as social and human development. His (Catterall, Chapleau, & Iwanaga, 1999) analysis of research provided by the Arts Educational Partnership for Champions of Change (AEP, 1999) and research from Critical Links (AEP, 2002) (Catterall, 2002a; Deasy, 2002) indicate significant cognitive and affective learning effects for children through arts-based curriculum and instruction. Catterall (2005) argues that each art form addresses specific aspects of physical, cognitive, and affective learning processes. A child demonstrates affective development through self-efficacy, motivation, engagement, and interest in learning. Furthermore, he says cognitive effects include enhanced problem-solving skills, creativity, social learning, communication, and processing of complex information.

Learning through the arts positively shapes cognitive, emotional, and social development, including self-concept, enhanced critical thinking skills, and language acquisition (Catterall, 1995; Deasy, 2002). The arts have a long tradition as a way of knowing the world, describing, interpreting, exploring, and appraising (Eisner, 1991). The arts are symbolic forms through which humans shape and express their experience (Dewey,
Eisner (1991). Eisner (2002) believes that art experiences enable us to discover the range and variety of what we are capable of feeling. He argues that the arts provide perception for meaning-making and depth in life experience (Eisner, 1991). In addition, Eisner (2004) supports the unique contributions to learning that the arts make in aesthetics and the construction of subjective knowledge about the world.

Educational Theatre

Educational theatre has an innate ability to connect with participants in a learning arena, teach information, and build skills (Darby & Catterall, 1994; Jackson, 1997; Wagner, 1998). Educational theatre as a teaching medium encompasses varying forms (Brown & Pleydell, 1999; Creech & Bhavnagri, 2002; McCaslin, 2000; Swortzell, 1990; Wagner, 1976; Way, 1967). These forms include children’s educational theatre, theatre in education, process drama, drama in education, creative dramatics, dramatic play, drama therapy, and improvisation (Swortzell, 1990; Wagner, 1998). In addition, dramatic forms may complement or overlap each other.

The significance of all forms of educational theatre lies in overlap between theatre, education, society, and human behavior (Neelands, 2004; Nichols, 1956; Peter, 2003). Nichols suggests that theatre has an inherent ability to reflect the human condition in story and imagined experience, making drama an invaluable teaching tool that deepens our understanding of self and society. The essence of drama is conflict, he argues. Educational theatre provides opportunities to resolve conflict through an imaginative process.

Some educational theatre specialists and theorists believe the function of drama is to enhance human growth and development (Brown & Pleydell, 1999; Catterall, 2002b; Creech & Bhavnagri, 2002; McCaslin, 2000; Rubin & Merrion, 1996; Wagner, 1976; Way, 1967).
Way argues the development of the individual is the purpose and function of drama in educational theatre. He writes, “Education is concerned with individuals; drama is concerned with the individuality of individuals, with the uniqueness of each human essence (p.3).” He looks at facets in human makeup that include emotion, concentration, imagination, physical self, the senses, communication and intellect. He draws upon these developing human facets using a creative dramatics process that is experienced without an audience. He focuses strongly on concentration, as he believes it plays an important role in development.

In human development, educational theatre may contribute to mental flexibility for creative thinking and problem-solving, self-advocacy, and self-esteem. It provides a way to discover one’s potential to influence situations and learn consequence in a safe environment (Peter, 2003). In addition, educational theatre techniques can address child development issues. For example, modeling socially acceptable behaviors using dramatic play allows distancing or trial and error, and encourages sensitivity to the human experience and condition (Hewitt, 2001; Peter, 2003).

Much of the literature seems to agree that educational theatre conventions form a bridge between innate uses – dramatic play for meaning-making – and other forms of imitative outcomes such as behavior, self-identity, identification with gender or power, social conformity, and notions of self-efficacy and competency (Creech & Bhavnagri, 2002; Hewitt, 2001; Peter, 2003). In her ethnographic study, Hewitt (2001) found modeling was important for structured meaning-making and behavioral change. She asserts that teachers mediate meaning-making, thus highlighting the teaching role as a vital component of dramatic play in learning.
Although a body of literature supports the potential of educational theatre as a learning medium (Barone, 1997; Brown & Pleydell, 1999; Hendy & Toon, 2001; McCaslin, 2000; Wagner, 1998; Way, 1967), there is some contention as to whether it is a consistently efficient teaching method (Neelands, 2004; Swortzell, 1993). Disagreement stems from varying perspectives on the importance of teaching artist expertise. Poorly executed educational theatre may have a detrimental effect and there is little research on expert efficacy (Barone, 1997). Neelands emphasizes the gaps between accounts of efficacy and accounts of miraculous transformations with, “I use the term ‘miracles’ here to describe accounts of events which claim some profound and new change in a student (p.47).” The call is out for rigorous research efforts to examine effects of drama and theatre in education on human development in educational settings (Barone, 1997, 2001; Catterall, 2002b).

Some literature and studies focus on the use of educational theatre as a learning medium for physical health, healing, and well being (Bandura, 1973, 2004a; Carroll & Bandura, 1982; Swortzell, 1993), others for psychiatric health (Bandura, 2004b; Melnyk et al., 1997; Melnyk et al., 2004). The bridging of educational theatre and health education provides a way to impart information for health promotion, a prevention strategy for the individual, groups, and society (Bandura, 2004a).

Music-assisted Preschool Learning

The core of the dissertation project is grounded in the literature of music-assisted preschool learning. The premise of I Feel Better With Music was to provide music and music-assisted learning strategies to influence teaching and learning of stress-reducing techniques. Music can affect feelings and emotions powerfully, so music was integral in eliciting emotional response for this study. The potential efficiency of music to teach
essential coping skills and behavior management techniques lies in the mind-body
connection (Lazar, 2004). The children’s musical play provided a context for an age-
appropriate approach as an alternative way of knowing, or understanding musically (Rubin & Merrion, 1996). This section highlights research into music-assisted learning for
preschoolers. I consider preschool learning in regard to music and cognitive development,
music-assisted learning techniques, music therapy strategies, and developmentally
appropriate categories.

Music expresses a nonverbal communication of intense emotions, associates with
memories, facilitates meaning-making, and can tell a story or make imaginative story-making
connections for children’s dramatic play (Way, 1967). The temporal nature of a performance
art like music-making requires mental immersion and embodiment. Teaching strategies for
young children often include musical play to connect with educational content in an intimate
way (Custodero, 2005; Rubin & Merrion, 1996). This neurological and biological process is
central to human learning (Jensen, 2001). He argues that music cultivates our cognitive and
emotional systems positively, which then enhances our endocrine and hormonal systems.
Jensen believes that music strengthens the stress response in the immune and autonomic
nervous systems and this in turn increases our chances for biological survival. He concludes
that music also may enhance developmental periods because age-appropriate musical play
develops social and personal skills and has an effect on culture-related aesthetic appreciation.
Music-making, he adds, may also improve perceptual-motor skills.

Music, learning, and brain function intertwine and overlap in dimensions of
childhood learning (Jensen, 2001; St. John, 2004). Music enhances the thinking process by
activating key systems working in synchrony located in the frontal, parietal, and temporal
lobes, and in the cerebellum (Jensen, 2001). Koelsch’s (2005) findings emphasize previous views explaining the importance of processing meaning through the use of music as another way of knowing. Music used as a learning vehicle allows for embracing and sharing cultural traditions through hymns, chants, and nursery songs (Cornett, 2003). Most American children learn the alphabet by repetition of a simple melody used as a mnemonic device (Rubin & Merrion, 1996). Cornett (2003) makes a case that music is paramount in the unification of affective, cognitive, and psychomotor domains. She argues that music therapy is important for biological and behavioral improvement because music can help relieve stress and enhance stress-related problem-solving.

Dance and movement are important to the preschool learning experience in music (Elster, 2001; Rubin & Merrion, 1996). Learning through the body takes place from infancy and appears to be instinctual in human beings (Custodero, 2005; Grumet, 1985; Springgay, 2004). The music and mind-body connection influences the learning experience of humans in deeply emotional and sensory manner (Langer, 1957; St. John, 2004). Music activates thought processes of imagination, associations, and memory (Custodero, 2005; Jensen, 2001).

Music therapy.

Music plays an important part in affective learning and the development of emotional intelligence. Music makes connections with patterns of emotional life (Jensen, 2001; Langer, 1957). The development of emotional and social skills in relation to competence and self-concept connects to music therapy in the identification of emotions and management of emotional behaviors (Barrera, Rykov, & Doyle, 2002). Thus, music is a therapeutic tool to
achieve nonmusical treatment goals (Barrera et al., 2002; Layman, Brook, Hussey, & Laing, 2002).

The following two studies are relevant to music-assisted preschool learning and health education.

Barrera et al (2002) used music therapy with children diagnosed with cancer in a health setting to help families cope effectively with discomforts inherent in diagnosis and treatment. The study incorporated the use of interactive music therapy specifically for the reduction of anxiety and to increase comfort during hospitalization. This study used live music techniques with 33 girls and 32 boys ranging in age from six months to 17 years (family members were invited to participate). Thirty-three of the 65 were in the three-five year age range. Music-making with the children and families focused on reducing stress, expressing feelings, and promoting well-being in an analysis that encompassed three age groups: 0-5, 6-10, and 11-18 years for a three-way ANOVA. This report yielded two significant findings. One finding suggests that an increase in time and activity creates a positive change of mood. The second suggests a positive experience in connection with activity engagement.

Findings did not establish evidence of the effectiveness of music therapy with pediatric hospitalized cancer patients. The variables limiting this study are: the age differences, length of time applied in therapeutic encounters, and the duration and number of sessions, all varying across patients. Additionally, the music therapist collected children’s responses, opening the possibility of bias. Despite these limitations, this research suggests value in using music as a therapeutic device for children with cancer.
Layman et al. (2002) concentrated an effort to establish assessment in music therapy for validity and reliability purposes for treatment methods. The study assessed three tasks: song choice, composition, and improvisation. It is different from previous studies in that the children have diverse behavior disorders, including affective and anxiety. The focus was on “…interpretation of how, why, and when a child musically communicates (p.172).” The four categories under investigation were behavioral/social, emotional, language/communication, and musical domains. According to the researchers, the assessment tool only provided reliability in four skill areas: play skills, attention to task, personal boundaries, and coping skills. The sixteen children ranged in age from three to 15 years. The findings were not significant due to variables in age and children’s motivation for improved behaviors varied. This study demonstrates a focus on child motivation for behavioral change using music methods and also highlights a push toward scientific evidence of music therapy effectiveness.

Summary

The review of literature included health education, educational theatre, and music-assisted preschool learning which provided a basis for my study. Each part of the review provided a unique perspective toward helping young children diagnosed with cancer manage stress. In places, existing literature intersected, uncovering interdisciplinary strengths and skills, and ways to communicate across a variety of emerging fields in education.

This literature review covered health education and background information about cancer, cancer treatment, and stress-related issues stemming from disease and treatment. Studies and literature in the health education section concentrated on health promotion and the reduction of stress factors perhaps leading to risk of medical trauma or posttraumatic stress disorder (PTSD). Health education intervention programs focusing on medical trauma
and PTSD related issues for preschoolers were uncommon (Melnyk et al., 1997; Melnyk et al., 2004). Despite the acknowledgement of critical adverse physiological and nonphysiological effects related to stress that affects critically ill young children, little has been done in health education to develop interventions to aid in coping and warding off psychiatric disorder (Duenwald & Grady, 2003; Harris et al., 2004; Melnyk et al., 2004).

The review also covered social learning theories and their use in health education to guide the development of health-promoting programs. Bandura’s (2004a, 2004b) Social Learning and Social Cognitive Theories (SLT and SCT) emphasized health promotion by cognitive means. Health promotion leads the child through modeling and imitation of behaviors for personal competency and well being. The children need to know what to do and be shown how to do it. In addition, Bandura’s (2004b) work in health promotion for posttraumatic recovery created a foundation for the role of self-efficacy, self-regulation, and perceived notions of competencies. The theory also helped to explain learning, development, and behavioral change.

I identified the importance of learning through the arts, particularly in the use of educational theatre and music-assisted preschool learning. The arts can enhance complex intrapersonal and interpersonal learning in social environments. The arts also support cognitive development in which subjective learning is a dynamic, vital, creative process.

Educational theatre as a learning medium has substantial support in the literature indicating positive effect for young children. There is a call for more rigorous efforts in research design for report of efficacy due to insufficiencies in methods and reports of effectiveness (Barone, 1997; Catterall, 2002b; Neelands, 2004, Swortzell, 1993). Diversity in
educational theatre technique and purpose make it necessary to study connecting issues in educational theatre before understanding its capabilities as a learning medium.

The literature illuminated the successful use of music as a learning modality when teaching young children. Health education goals utilizing music-assisted learning and music-making emphasized design considerations for notions of age-appropriate learning in emotion, communication, and attention. More importantly, the literature addressed stages of development for child processes of thought, symbolization, and music interpretation (Davis, 2005; Dewey, 1933; Eisner, 1982). Implications for teaching and learning using music methods brought attention to cognitive development and age-appropriate considerations for the design and implementation of the curriculum. This section of the literature supports a growing body of theoretical and clinical research in music-assisted instruction of health education content with the goal of behavioral change.

Interdisciplinary strengths, multiple artistic modes, and personal perspectives drove this study. This collaborative melding created a leader-assisted self-transforming process for preschoolers. Here, growth and development became a personal and complex order of choice, consequence, and consciousness. This energetic and interactive process has challenging, complex, and promising implications for arts-based curriculum and instruction, as well as the potential to enhance the way young children learn to meet intricate health challenges.

Chapter II summarized related research and scholarship. Chapter III presents the arts-based curriculum, the film-based educational research methodology, and artistic representation information.
CHAPTER III
RESEARCH DESIGN METHODOLOGY

Overview

Figure 5: Mother Goose and Little Bear brush their teeth, from *I Feel Better With Music*. (Illustrations by Lisa Gaither)

The purpose of this study was to investigate the effect of an arts-based curriculum with accompanying materials on preschool children diagnosed with cancer. As a reminder, the central research question follows: What is the arts-based curriculum affect on critically ill preschool-aged children diagnosed with cancer? Aspects of the central question include: What is the curriculum affect on children’s understanding of disease and treatment information, coping skills, and behavior management techniques? How do children
diagnosed with cancer respond to specific stress-reducing elements of the arts-based curriculum and tool kit?

I examined all aspects of the arts-based curriculum to understand how it acted on the children to influence or effect a change in self-regulation of emotional states. I explored all aspects of the curriculum implementation dealing with children’s understanding of disease and treatment information, coping skills, and behavior management. I also noted how the child used items from the tool kit to alleviate stress either alone or with parent assistance. Finally, I considered how the stress reduction experiences of the curriculum affected the children.

Qualitative Research

Qualitative educational inquiry helps us to understand complex human behaviors and learning (Merriam, 1998). Individuals make sense of their world in a unique manner, interpreting experiences in such a way as to construct new meanings and incorporate new behaviors as part of their understanding. According to Marshall and Rossman (1999), qualitative research in the field setting should address problems rising from the environment. For this study, qualitative research methodologies were invaluable in the analysis of complex behaviors and learning. The study focused on children with cancer, especially behaviors significantly influenced by the medical setting. The sensitive nature of traumatized children and their parents necessitated a research design responsive to participants’ needs.

The literature revealed a significant lack in health education support for young victims of cancer. I felt that children could possibly benefit from the arts-based curriculum designed to provide them with disease and treatment information, coping skills, and behavior management to reduce stress. Based on my previous experience as a teaching artist, and
because of minimal research about arts-based curriculum and instruction, I wanted to understand how these children responded to teaching and learning in the educational theatre and music modes. However, it was also possible that some aspect of the curriculum or music could produce an adverse affect.

The complexity of the arts-based project, the social aspects of education, and the paucity of arts-based learning research in this area supported my use of the inductive strategy that qualitative research employs. This strategy allowed for observation of a small number of cases. It emphasized examination of child responses and personal experiences during and after the educational phenomena to identify patterns and trends. The thick description offered by qualitative research techniques provided a way to extract processes of meaning-making and build theory through observation of behaviors. “Thick description” refers to detailing accounts of the children, their particular disease and treatment challenges, and the educational phenomena in film and written descriptions by the researcher’s interpretation of observations, context, and facts.

*Arts-based Educational Research*

Arts-based educational research (ABER) is qualitative research inquiry for educational purposes and scholarship (Springgay, 2004). Suominen (2003) states, “Arts-based educational research means that an approach to investigation is based on the arts and uses artistic expressions both in investigation and in reporting the results.” Since qualitative research focuses on process, meaning, and understanding, one finds the product of a qualitative study richly descriptive. ABER includes images and narrative – rather than numbers – to convey what the researcher learns about a phenomenon (Eisner, 1991; Suominen, 2003).
ABER is an emerging field consistently related to qualitative educational research. Furthermore, it offers an aesthetic rendering of inquiry using the subjectivity inherent in the arts to inform research analysis. Springgay and Irwin (2005) explain the intersubjectivity that exists in interdisciplinary notions and methodological concepts of ABER.

Concepts are flexible, dynamic, and intersubjective locations through which close analysis renders new understandings and meanings. In taking up the notions of a condition (relational aesthetic inquiry) and concepts (renderings)...we attend to the process of creativity and to the means through which one inquires into an educational phenomena through artistic and aesthetic means (p.898).

ABER was a good fit for this study due to the interdisciplinary arts structure in the project and the artistic mode of representation of the research report, described later in this dissertation. According to Barone and Eisner (1997), the seven features of arts-based educational inquiry are: 1. the creation of a virtual reality, 2. the presence of ambiguity, 3. the use of expressive language, 4. the use of contextualized and vernacular language, 5. the promotion of empathy, 6. the personal signature of the researcher/writer, and 7. the presence of aesthetic form (p.79). They argue that not all inquiry addresses all seven features in artistically grounded approaches to educational research. The artistic/scientific disciplinary merger offers nontraditional and unlimited new ways to collect data, analyze, and present findings (Cahnamn-Taylor & Siegesmund, 2008).

Conceptual Framework

The conceptual framework (Figure 6) for the film-based methodology is consistent with the research study framework provided in Figure 2 (page 6). The outer circle around the circumference of Figure 2 indicates the placement for ABER as a methodology of data collection, analysis, and representation. It illustrates the qualitative educational research feature of triangulation in this study, which uses film-based documentation, parental interviews, and field notes.
The circle of SLT and SCT in the same figure represents the social learning theories used to interpret the educational phenomena in the sessions. The theories helped to explain changes discovered in the children’s behavior, as I analyzed the data from the film documentation of the teaching sessions. I also used these theories to interpret the interview data and explain issues of self-efficacy and self-regulation.

Figure 6: ABER Conceptual Framework
Triangulation

In qualitative research, a triangulated method of data collection provides clarity in communication by the researcher and reduces the likelihood of misinterpretation (Stake, 2000). Eisner (1991) refers to these triangulated methods of data collection for qualitative inquiry as “structural corroboration”. He explains that this provides a way to relate multiple types of data to support or contradict interpretation and evaluation of educational research. He argues that ABER methods of inquiry are as diverse as the nature of art and that structural corroboration may enhance coherence and plausibility, important for research with social complexity. He asserts that this variety in arts-based research approaches means that qualitative researchers must have secure backgrounds in the teaching methods and social science theories, enabling them to appropriately interpret the educational phenomena.

Data collection methods used in the triangulated analysis include film documentation as an observation technique and a means of coding for analysis; interviews of parents conducted by an independent interviewer, as well as a double interview data analysis conducted separately by the independent interviewer and me, and field notes situating my perspectives as a participant and highlighting emerging analytic insights. Stake (1995) suggests that analyzing and reporting from multiple perspectives ensure that research observations produce unambiguous interpretation, are repeatable, and reinforce validity. To this end, an independent interviewer questioned the parents at the end of the educational sessions. I analyzed the textual interviews and compared our findings. Some of the videotaped interview data incorporated in the film report supports triangulated results, discussed in detail in following chapters.
Representations.

Barone and Eisner (1997) identify three differences between ABER methods and traditional qualitative methods of inquiry. The three differences include artistic representation of the research findings, understanding the role of film in research, and the principle that the research dictates the method. I distinguish the differences as they pertain to my study. First, in this study, my artistic representation of the findings is in film. I used film to document the implementation of educational theatre and music as learning vehicles. I then analyzed the filmed data and produced a documentary style film to artistically represent the research results and findings.

The film editing process used for data analysis allowed me to take excerpts of the film and place the film clips in folders (see Figure 8, p. 78). The software system for editing called Final Cut Pro 5 HD helped me to categorize visual data to distinguish emerging trends and patterns for analysis. This process also allowed me to copy important film clips of educational events to make additional categories for overlapping aspects of teaching and learning or child responses. I analyzed the film, interview, and field note data to triangulate and support information extracted about how the curriculum affected the three children.

Integral to the second difference is understanding the role of film in research. I used film analysis so that I could observe and analyze what happened during the teaching and learning process. This was particularly helpful during curriculum implementation as children’s educational theatre techniques were demanding and left little opportunity to conduct observational analysis in the field. The film process allowed time and means for proper analysis. Visual imaging showed the individualistic experiences of teaching and
learning. New technology provided a systematic way to analyze data and explore this technology for artistic and practical educational research purposes.

Documentaries entered the educational research world as a new way of knowing. The documentary presented film information for analysis and report. Central to the idea of typical documentary film is a qualitative value called “asserted veridical representation” (p. 111), or telling the truth (Plantinga, 2005). Film in educational research provides a way to capture and analyze learning (Roschelle & Zaritsky, 1997) and reflects, in real time, the human aspects of learning, which include: social interaction, communication discourse, vocalization, gesture, behaviors, and vicarious learning (Capraro, Capraro, & Lamb, 2001). I found it also showed use of provided curriculum tools, materials, and the children’s manipulation of the accompanying tool kit (Smith & Reiser, 2005).

Eisner (1997) affirms that new technology provides new forms of representation possible to communicate research results. He argues that doctoral research, in which video and film are central elements, are rich visual resources and artifacts.

As a matter of fact, videos and films are often richer resources for helping others understand a situation than a written narrative would be. With video, viewers can see the setting, hear the actors, observe the action “live.” Researchers can also add commentary that is analytical or theoretical as anything found between the covers of a book. (p.244).

Barone (2003) foresees new possibilities with the emerging film-based educational research phenomenon. He expects it to foster imaginative projects and research innovation. He discusses issues of quality and purpose in terms of intended audience, chosen medium, and the personal and cultural background of the researcher. He encourages students and teachers to search for nuances and complexities in educational experiences.

Barone and Eisner (1997) draw three distinctions between ABER and traditional qualitative research methods. Understanding the role of film in research is germane to the
second difference. ABER methods create a virtual reality in the artistic representation of the data. This evokes empathy and a deeper understanding of the research. To support validity, I used the film editing process in order to analyze and thoroughly understand the children’s responses during the teaching process. I then edited the film to render a virtual reality for viewers.

The third distinguishing factor between ABER and other qualitative methods is that the purpose of the research dictates the method (Barone & Eisner, 1997). Film for my study of the arts-based curriculum with preschoolers seemed an appropriate medium because it allowed me as teacher/artist/researcher to view the implementation for analysis purposes. As an artistic representation, it also allows the target audience – educational researchers, clinicians, and parents – to immerse in the artistic forms of theatre and music utilized in the curriculum. I used an artistic film representation to inform my audience about this arts-based instructional method and the findings of the study. In addition, a documentary style film allows the viewers to observe, interpret and analyze the educational phenomena.

Research study.

The research study involved a program intervention of five one-hour curriculum and data collecting sessions for three preschoolers and their parents. The curriculum design promoted healthy behaviors and self-regulation of coping skills using the materials in the accompanying tool kit. The curriculum and tool kit included activities in music, drama, and visual arts.

Three case studies with separate educational program implementations comprised the research study. Unfortunately, the original plan to teach one complete week, Monday through Friday, required adjustment because of the challenges from disease and treatment, travel
issues, space availability, family scheduling problems, and inclement weather. I describe the differences in program implementation for time distribution and the associated problems. All three children received the same core educational sessions and events.

The first program implementation was a pilot study involving one child and her parent. I analyzed the resulting film data, interview data, and field notes and produced a documentary style ten-minute film with data results, scripted voice over, and some text. I applied content mastery and SLT and SCT levels to analyze how the child learned. In addition, I used my multiple perspectives of teacher, artist, and researcher to fully describe the human experience of teaching and learning in the pilot study. Based on the results, I made refinements where necessary.

The second part of the study involved two one-week programs in which two sets of children and their parents received instruction. Teaching two students in one program would conserve time and cost, but the family schedules were impossible to coordinate. By developing in-depth studies on three individual cases and performing a cross-case analysis, I determined how the curriculum affected each child by focusing on emerging trends and patterns about curriculum effect in learning.

I began by securing permission from hospital administration, oncology staff, and parents. The implementation encompassed the five arts-based sessions using music, educational theatre, and theatre in education techniques. As a teaching artist and researcher in the guise of Mother Goose, I taught lessons about health education, disease and treatment information, coping skills, relaxation, and behavior management techniques. I also taught the curriculum in conjunction with the accompanying tool kit. Each child received the tool kit, which contained a CD player, a three-CD set of music (developed specifically as a music-
assisted learning tool), a published children’s storybook reflecting concepts delivered in sessions, comfort items, arts-based activity items for dramatic play, and musical instruments.

Site.

The site selected for the study was a university-based children’s hospital in the United States. The pediatric radiology oncologist in charge secured a small waiting room located off the main waiting area. I partially screened the space from the main waiting area during the first implementation. However, it was impossible to completely block observation from the larger waiting area. I discovered that “screening” drew more attention to the implementation project and confined valuable dance and movement space. Screening also generated a feeling of uncomfortable confinement. After the first session, I left the space open. Different areas of the hospital were used during the parent interviews and Mother Goose’s final curriculum reviews with the children. Some shared areas had background noise problems and other spaces produced other challenges that are obvious in the film.

Participants.

The participants in this study included three children and their parents. The subjects were preschool-aged children, four to five years old, diagnosed with childhood cancer. A parent and sometimes a sibling accompanied the children. Participants spoke English. All children were Caucasian and each lived in family units of four (two parents, the child participant and one sibling). I participated as a participant-observer as teaching artist performing as Mother Goose.

The head professor in pediatric hematology-oncology recommended participants after they expressed interest. To attract prospective participants I supplied flyers that the head professor displayed in the pediatric oncology area of the cancer hospital. When the professor
identified and approved a potential participant, I met with the family at the hospital or their home. I explained the study in detail, answered any questions, and provided the consent and taping forms to sign (see appendices C and D). Participating parents signed these forms before curriculum implementation.

In order to protect the participants and avoid breach of confidentiality, I used pseudonyms (Mary or Child 1, Tommy or Child 2, and Polly or Child 3). The parents received an explanation to this effect and granted permission to use visual images in the study. I told the participants’ parents that they could drop out of the study at any point and asked them to share only what they felt comfortable sharing.

Curriculum Implementation.

The pilot study and the following studies consisted of five one-hour sessions. In an ideal research world, these sessions would be one per day, Monday through Friday. I spent the same amount of time and number of sessions with each child, and aligned schedules with their visits to the cancer hospital as often as possible. Implementing the program for Mary (Child 1) and Tommy (Child 2) took a week and a half each. During the implementation for Mary, we had to postpone sessions due to inclement weather twice. One session took place the next week and doubling sessions on a Saturday made up the other. The second family scheduled the implementation for Tommy during the summer. However, they received a foundation gift of a paid vacation to visit a popular Florida theme park for the same week. The parents rescheduled for November during a break between school sessions, around the Thanksgiving holiday. One session aligned with a participant’s visit at the cancer hospital for a flu shot, another with a treatment visit. The week split around the holiday, so the
implementation also included a dual-session on Saturday. So both Mary and Tommy received a Saturday session to implement the relaxation techniques.

I compressed sessions for Polly (Child 3) into a three-day period. The family traveled a long way once a month for treatments. The parents asked to participate in the study because they hoped that the program would help their child with stress, a major issue stemming from treatment. The doctors recommended the child. In the event that the issue of participant time availability (three days) was unacceptable for the study, the doctors left the decision for implementation up to me. Even though the original one-week duration was an inherent issue of the study, the previous two cases already indicated implementation issues that might affect the study. Thinking the program might help the child, and that the parents might learn strategies to help their daughter, I agreed to accept this family for the study. I shortened the implementation to align with treatments at the cancer hospital, doubling sessions for two days and presenting the last session on the third day. We held the first day of sessions late in the afternoon to accommodate quiet time after most of the oncology staff left for the day.

In all of the final sessions, the independent qualitative researcher privately interviewed parents about the child’s behaviors. This interview took place at the same time as the final curriculum review for the teaching artist and the child. Interviewing the parents separately provided an opportunity for a last session for the children and Mother Goose and one videographer. This was possible with two of the child participants. The parents of the third child were more comfortable with one parent in constant attendance because of the child’s treatment and stage of maturity. All sessions documented on film became data.

During the five sessions, I introduced characters, curriculum format, and musical agenda. The instruction included disease and treatment information, coping skills, behavior
management techniques and periodic content reviews. The sessions promoted healthy behaviors through the use of music and arts-based activities. I believe this strategy encouraged self-efficacy and self-regulation of children to alter behaviors, ultimately causing children to feel better emotionally and physically when they were successful. I introduced Itsy Bitsy Spider, a puppet with leukemia, for a “peer” concept to elicit child interaction and discussion about individualistic cancer issues. The child may emotionally connect with the spider as it experiences the same procedures, treatment, emotions, and challenges as the children. For example, the smooth puppet used to be a hairy spider. Interaction between Mother Goose and Itsy Bitsy Spider provided positive modeling for observational learning and created opportunities to question children about content learning. For example: Mother Goose asked, “Should Itsy Bitsy Spider eat this candy? What should he eat since he/she is so ( nauseous) sick to his tummy today?” This interactive environment allowed the flexibility to work deeply in a child’s areas of need. It provided me opportunities to model behaviors that showed children how to accomplish behavioral change. I provided a safe environment in which to try or practice behavior management techniques. Social Learning Theory delineated this method of teaching and learning and Social Cognitive Theory helped to explain the resulting behavioral change.

Arts-based Curriculum: *I Feel Better With Music*

Two assumptions underlie the design of this curriculum. First, knowledge is necessary to prevent risk behavior. Second, a child needs to know what to do and how to do it in order to promote well being. In creating this curriculum, I brought my personal values and beliefs (Grumet, 1988), caring (Noddings, 1992), experience (Dewey, 1934), aesthetic education (Taylor, 2000) and professional expertise (Barone, 1997). Curriculum and
instruction in health education emphasizes defining individual needs then educating to that purpose (Kok, Devries, Mudde, & Strecher, 1991). The premise underlying the project design is that personal choice is the definitive factor in human existence (Bandura, 1989; Eisner, 1994).

Essentially, all three children received the same health education segments. Although the health information content reflected individual needs, the curriculum was the same for each child. The segment format was the same as well; however, individual needs dictated segment order. Parents communicated children’s health issues, which informed the modifications to each curriculum to meet individual needs. During initial face-to-face meetings, the parents discussed their child’s disease and treatment information and their own beliefs about the child’s stress sources. For example, Mary’s (Child 1) mother explained her belief that Mary’s major stress source stemmed from cancer, although Mary demonstrated feelings of anger and frustration inappropriately toward her younger sister. Mary’s compromised immune system required isolation, so the child had little contact with anyone outside of the family for prolonged periods. The mother added that because Mary was no longer able to attend preschool, lack of social interaction also affected her behaviors. The mother asked that the curriculum focus on relief from stress, coping skills, and behavior management. The curriculum focused on Mary’s inability to self-regulate when dealing with her little sister. This focus for the curriculum is evident in the film. We began with a five-sessions plan that included a weekend day ensuring uninterrupted quiet for the relaxation sessions. However, cancellations for inclement weather expanded the duration to a week and a half, and rescheduling forced us to double sessions in one day.
At the first meeting, the parents of Tommy, (Child 2), a little boy, reflected the sentiment that cancer afflicts the whole family and emotionally affects all family members. They wanted to include all family members in attendance for the five sessions to receive maximum benefit from the program. I felt this was a novel and unexpected request, and complied. The parents attributed some of the source for stress for Tommy to sibling fighting. His elder sister, who they said was frustrated with treatments and afraid her brother might die, exhibited a “motherly” protection toward him. The parents hoped this program would help to resolve issues between the two children. The mother felt that this program would provide the older sister with a healthy way to relate to her brother’s disease and treatment issues, thus relieving stress for Tommy. Tommy had fears associated with invasive treatment specifics, such as the shots administered regularly as part of his treatment. The parents felt that he feared further surgery, even though his surgery was complete. They attributed these fears to associations with a grandmother who recently overcame cancer after intensive surgeries. The parents asked me to also focus on self-regulation and self-efficacy issues to help Tommy feel more self-confident and capable. They said that fatigue and illness from the disease and treatment sometimes affected the child’s physical and mental performances, reducing his self-confidence. The parents also insisted that the family be “treated” as a whole.

The family unexpectedly received a gift from the Make-A-Wish Foundation and postponed the original scheduled week. Later, in the fall, this caused problems in scheduling as Tommy returned to a year round school schedule. During the summer, he missed school because he was immune compromised. We were forced to split the days during the Thanksgiving holidays, skipping five days in the middle of implementation.
Polly (Child 3) normally attended the cancer facility once a month for two to three
days of treatment. She sometimes stayed for longer treatment (usually a week) or for
intermittent periods of hospitalization. The family expressed interest in the program at the
hospital, and I met with the parents. The doctors felt the family would be especially good
candidates for this study. They knew the short time frame for Polly’s treatment could upset
the study, as the curriculum required a full week (five-sessions). Cancer side effects included
extreme stress-causing factors. The family had to travel long distances for treatment and miss
work. They usually stayed at local facilities provided for families with cancer hardship as
Polly has a younger sibling. They were willing to try the program. After hearing about the
family’s challenges, I decided quickly that I wanted to help if I could.

I met with them on their following monthly trip to the hospital to assess needs for the
curriculum design. In the meeting, the mother said she understood that the compacted
implementation period might be detrimental to the effectiveness of the program. She agreed
that the added strain of side effects made it important for the parents to learn and teach or
reinforce concepts when they returned home. The mother was the only parent at the meeting
and wanted the whole family to attend. The parents felt that Polly’s side effects would make
it difficult for the mother to concentrate on learning concepts with a small sibling in tow. The
father would take off from work to help attain maximum benefit from the program. Later, I
discuss this family’s dynamics and how the parents worked seamlessly together during the
implementation.

The parents wanted to focus on learning how the curriculum concepts for stress
reduction worked with the music and tool kit items. They were particularly interested in
learning how to use the music to relax. The dexamethasone the child was receiving in that
phase of treatment was intensive, producing profound side effects. These included restlessness, nervousness with uncontrolled physical twitching, fatigue, mood changes and poor sleep quality. Polly experienced all of those side effects with each treatment, so relaxation techniques, coping skills, and behavior management became the focus for this curriculum design. The parents received the book in advance to introduce Mother Goose, the characters, and concepts about music to the child. In addition, the parents received written resource materials and contact information if there were questions. We conferred several times before the implementation. The implementation coincided with the following monthly treatment. We doubled sessions for two days with breaks between sessions. One session that required quiet was set up late in the afternoon. The third day we filmed the parent interview and final curriculum review.

- The following list shows the format for each of the five sessions. Variations addressed individual needs, preferences, and scheduling for quiet events requiring no interruptions:
  - introduction
  - hello song
  - *I Feel Better With Music*, reading the children’s picture storybook which features Mother Goose and Little Bear (reflects curricular themes and introduces accompanying music)
  - present curriculum theme through activities and accompanying music
  - work theme of the day dramatically or through other arts-based activities
  - Non Magic Bag of Tricks (Mother Goose bag containing items to add to child’s tool kit, “This will do the trick!”)
• bubbles and bubble song (Put Your Troubles in Your Bubbles)
• goodbye song
• fairy kisses.

**Before First Day:**

A meeting with parents and children provided the opportunity to sign consent forms and distribute parent resource information, teaching guide, and accompanying literature. These meetings were an opportunity to assess age-grouping or comprehension level of child development for purposes of adapting the curriculum to age-appropriate activities. There are great differences in stages of development between three and five, and sometimes four and five year olds as well. I have found that developmental issues or preferences are always an important consideration for curriculum design.

I explained to the parents that I worked with young children diagnosed with cancer for ten years in a costumed capacity at various children’s hospitals in New York and am continuing this effort locally. My previous experience working with children with cancer or special needs taught me that some might have a temporary warming period to a costumed character, but that this period is usually only temporary! I introduced the concept of Mother Goose teaching the curriculum and addressed the child’s history and characteristic responses to experiences with costumed characters. This behavioral information determined a need to add costume pieces slowly, dressing in front of the child, or whether the child would accept a full-costumed entry. I received assurances that the children were accustomed to costumed characters.

I emphasized that the child’s learning was the focus of this study. The teacher resource guide conveyed the importance of parental presence for the entirety of the sessions.
and during the activities. Parents received encouragement to reinforce coping skills and healthy behavior management techniques during sessions and at home. Parents and child were to actively participate in the curriculum activities and concentrate on learning health education concepts. For example, both parent and child would learn new songs, dances, rhymes, breathing exercises and guided imagery techniques. I expected the parents to participate with the child in music-assisted learning activities: playing instruments, singing, dancing, creative movement, reading, puppetry, dramatic play, and arts-based projects. Parents were to encourage children to explore, experiment, and express themselves. Finally, at this preliminary meeting, there was a time allotment for parent questions.

Creating an informational and experiential foundation between parent and child allowed the parent to reinforce the child’s confidence and self-esteem during the learning process. Some children were naturally more gregarious than others; some children required more parental involvement. For example, Tommy and Polly took a bit longer to venture away from the close safety of the parent during sessions. I attempted to engage each child to establish self-esteem, self-efficacy, and teach self-management techniques for healthy choices. The parent’s support or lack thereof in this effort became important to results.

**Every Session:** Each day we read the part of the children’s picture-based storybook *I Feel Better With Music* coinciding with the session’s curricular theme. For example, the part of the book about nutrition coincided with the curricular theme in the second session. Each session, we explored another scenario, supported by the book through two-page spreads that included a full picture, text, and verse from related musical selections. Detailed lesson plans for the five sessions are as follows:
First Session:

The first session introduced Mother Goose, her goose puppet, and music. The first curricular theme of the day was “Going to the Doctor” with a hands-on experience with puppets and the guitar, the presentation of the tool kit, and instruction how to use items of the day. The kit included; *I Feel Better With Music* CDs, CD player, medical kit, children’s picture storybook *I Feel Better With Music*, hospital coloring book called *Little Bear Goes to the Doctor*, crayons, teddy bear, and a small blanket for comfort.

The curriculum theme of the day covered shots, blood work, weighing, stethoscope, numbing cream and plastics, bandages, Face Pain Rating Scale (Wong-Baker, 1994) for communication with parents, doctors and nurses, blanket for use when cold in chemotherapy intravenous sessions (IV) (they must sit relatively still for approximately four hours during IV sessions), and dramatic play with Mother Goose’s sock monkey.

Next, the session included nutrition and healthy choices. Eating is often difficult due to chemotherapy and medications like prednisone. The treatments often create nausea, and at times provoke obsessive eating patterns in children. The curriculum addressed issues of neutropenia, a common side effect from cancer treatment affecting white blood cells. This reduces the ability of the immune system to protect the body from infection (Janes-Hodder & Keene, 2002). The mouth is an entry for bacteria, so this session included special diet and mouth care information. All children experienced some form of this side effect. I addressed food choices, cleanliness before eating, alternative solutions for queasy tummies and nausea, and fun visual techniques with food to help increase appetite. The curriculum offers “one bite at time/one sip at a time” activities with music and dramatic play to encourage eating when there is no appetite and to fight dehydration. This “Fun with Food” included making
healthful choices, creating funny faces, necklaces with cereal, and aliens to eat. We explored the food pyramid and supporting materials in booklet forms to put in tool kit (some homework!).

Character: Mother Goose and Puppet, Gwenny Blossom

1. introduction

2. guitar: Hello Song and hands-on with guitar

3. hello with puppets and music

4. read: introduce coloring book, Little Bear Goes to the Doctor, about going to the hospital to see the doctor

5. Fisher-Price medical kit to take home and play with Mother Goose’s stuffed sock monkey made by volunteers: children receive the same monkey from the recreational therapist in pediatric oncology, this going to the doctor theme included: shots, blood work, weighing, plastic bandage, stethoscope, numbing cream and plastics, etc., eat good food dialogue with Mm Yummy and The Vegetables Were Dancin’ on the Table songs with musical instruments, dialogue about the importance of eating well when you are sick / one bite at a time activity/ nausea

6. introduction of I Feel Better With Music book and eat well literature

7. Non-Magical Bag of Tricks: Little Bear goes to the Doctor (hospital’s coloring book), crayons, medical kit and colorful band-aids

8. bubble song with bubbles: Put Your Troubles in Your Bubbles

9. goodbye song: Bye Bye

10. fairy kisses
Second Session:

The second session addressed immune system problems. The children learned why germs make us sick, why we must keep germs at bay, and how to do that. I addressed issues concerning neutropenia and special mouth care. The mouth-care regimen is an important aspect of cancer care. The children find it hard to understand why they must endure the entire mouth care process, especially when the child is sleepy and tired. The lesson showed how to use the mouth-care system and offered a music-assisting activity and reward system. Side effects of treatment include dehydration and dry lips. I addressed this issue with the importance of drinking water, juicy snack alternatives, how to keep lips moist (a consistent uncomfortable problem), and fun songs to sing with or listen to that help us to learn how to accomplish mouth care and healthy eating and drinking choices. I introduced specialized treatment information at this time. For example, if radiation treatment was a factor, I showed them how to use a skin cream for healing (with parent supervision).

This session addressed self-esteem, introducing ways to comfort oneself when imposing procedures are at hand. I modeled how to use the Face Pain Management Scale (FPMS) (Wong & Baker, 1988) chart, which presents facial expressions to communicate levels of discomfort to hospital staff. We practiced effective communication skills and good manners. We discussed and emphasized the use of magic words like “please” and “thank you” when communicating with hospital staff, friends, and members of the family. I modeled the use of tool kit contents to show different choices for self-regulation. There were many choices for making yourself feel better: music, headphones for quiet music-playing (so no one else is disturbed), non-toxic modeling clay as a source of entertainment for long waits at the doctors office, blanket if chilly or to mark a special space, crackers when nauseated (ask
first), water if thirsty, and how we can make others feel appreciated and important in our daily lives.

1. introduction

2. *Hello Song* with hands-on guitar

3. content included: washing hands, germs, and bacteria dialogue/eating, brushing and special mouth care system with discussion, music and instruments, *This Is The Way We Wash (All Around the Mulberry Bush)*, *Brush Your Teeth Song*, swish and clean with sponge toothbrush as an alternative, rinsing, or swish and swallow with Nystatin, dry/sore mouth and keeping clean activities, radiation or other treatment activities pertinent to the child’s treatment regimen, in addition, there was self-esteem and confidence building with manners and care for others (Rimer & Glanz, 1997), instruction about new friends like doctors and nurses and related communication issues, “When scary stuff happens” with dramatic therapy based play, I introduced the song, *Slow Down and Take it Easy*, happy hats, “make yourself happy”, “make yourself comfortable”, “make others happy”, and “make others comfortable” (Communication Skills). I also addressed manners with behavior management and introduced the *Sweet Darling Thank You Song*.

4. read from beginning of the *I Feel Better With Music* book and discussed keeping clean with mouth care through *What’s up Doc* section

5. Non-Magical Bag of Tricks (fun soaps, bacterial hand-wash, washcloth, chapped lip sticks, non-ingested alternatives, etc.) and presents for others (the child gets to choose)

6. bubble song: *Put Your Troubles in Your Bubbles*
7. goodbye song: *Bye Bye*

8. fairy kisses.

**Third Session:**

The third session introduced how to communicate and manage feelings using music. This process introduced musical options developed for this purpose and for learning in “Cool School.” Cool School offerings included an alphabet song, rhyming, counting, dances, and more.

I introduced the character Itsy Bitsy Spider as a “peer” concept. Itsy Bitsy shared challenges of cancer disease and treatment like the children experienced. We focused on techniques of coping with side effects. These included hair loss, eating problems, feeling tired, or feeling hyper. Included were coping mechanisms using music for procedures, and choosing healthy behaviors over unhealthy behaviors. Discussion and instruction using dramatic play included coping with separation from familiar routines and people, sadness, anger, fear, behavioral outbursts, and manners. This session provided different ways to share feelings and different choices to self-regulate feelings.

1. introduction

2. guitar: Hello Song and hands-on with guitar

3. classical music with instruments


5. *Hip Hop the Bunny* energizer music and dance/movement for feeling sad/lethargic: parachute and review nutrition and hygiene
6. Non-Magical Bag of Tricks (musical instruments)

7. bubble song: *Put Your Troubles in Your Bubbles*

8. goodbye song: *Bye Bye*

9. fairy kisses.

Fourth Session:

The fourth session was split into two distinct half sessions and lasted a bit longer than normal.

Here, we addressed feelings of anger and explored healthy choices to work through anger. We reviewed comfort factors, musical options, and activities to feel better. We listed and examined the contents of our tool kits, discussed what we could do with them, and ended with the accompanying activity and song, *Put Your Troubles in Your Bubbles*.

1. *Hello Song*

2. anger management dialogue with goose puppet Gwenny Blossom and other puppets or stuffed animal / *Put a Big Smile on My Face* and *Blue Boing*

3. rhyming with parent & child activity

4. anger management (“It is okay to feel angry …what can we do if we are angry to make ourselves feel better?”), there were several options to review on working through anger

5. reviewed coping skills and behavior management techniques (reviewed counting, relaxation and breathing techniques, music options, etc. with parent and child)

The second half of the fourth session focused on the child’s inability to relax or sleep. The Sound Cradle (Duncan, 2005), a musical therapy instrument, provides a sound vibration massage for the participant lying inside of it (see Figure 7). The bones and fluids in the body
conduct the sound, which penetrates deeply. Mother Goose performed music and a lullabye with the children inside. There is a cradle effect as well.

![Figure 7: The researcher and the Sound Cradle.](image)

This session included guided imagery and physical relaxation techniques of breathing exercises, mindfulness, meditation, and massage. We used picture-book reading, and the session’s “Making Pictures in My Mind” imagery technique by Mother Goose using *Color Rhyme*. This guided imagery invokes reflection on pictures provided from the book that involve a pink sky, an airplane, a little red wagon and a purple-green dragon, birds, and so forth.

6. read: take a nap/go to sleep (meditation) and imagery literature, pictures in your mind, thinking wonderful things, and being relaxed and quiet

7. Mother Goose relaxation music and techniques with the imagery rhyme

8. sleep and restful music with music therapy instrument, the Sound Cradle
9. Non-Magical Bag of Tricks with soothing, sleepy-time object (varies according to unique perspectives of child and parent, who may already use a cuddle blanket, stuffed animal, or other ritual like snacking, etc.)

10. bubble song: *Put Your Troubles in Your Bubbles*

11. goodbye song: *Bye Bye*

12. fairy kisses.

**Fifth Session:** Parental Interview and Final Curriculum Review:

An independent interviewer conducted videotaped parent interviews with questionnaires. A second videographer shot footage of Mother Goose and the child participant. The interview with the parent took approximately thirty-five to forty-five minutes.

**Research Approach and Data Analysis**

I assumed the role of a participant observer in this study interacting with participants in an educational theatre experience in character as Mother Goose. Two videographers filmed the curriculum implementation. Their efforts doubled the camera footage, allowing complex cross-referencing of educational events for analysis and quality representation. As instructed, they remained on the perimeter and were as unobtrusive as possible. They helped work out the overall and individual foci for each curriculum session, ensuring full coverage and reducing repetition in specialty camera work. Parent interviews and observation field notes were collected for triangulation.

*Film coding process for analysis.*

Using the film records as researcher, I was able to "rewind the experience" (St. John, 2004, p. 80) and analyze interactions using a visual inquiry process. This allowed me to
formulate emerging trends and patterns as well as re-examine previous notions about evidence of learning. As a participant observer, I found that I misconstrued or missed responses during educational events and exchanges. The visual inquiry and analysis process helped to develop hypotheses about actions and interactions as I conducted a rigorous repeated review for coding protocol and in-depth analysis.

The film editing process for data analysis included excerpts (clips) taken from the film and placed in folders using video editing software Final Cut Pro 5 HD. The process was similar to Atlas.ti (2002), a word-coding scheme for processing information. However, I analyzed visual elements of “phrasing” rather than verbal texts, as found in written interview data. The filmed data analysis process required sequencing and coding behaviors appearing in video images and accompanying recorded audio track. During this editing process I created folders to hold visual film clips. Like any coding process, the folders contained themed data for further analysis.

I began by watching the video documentation many times until thoroughly familiar with the stories shown within each curriculum session. Then, created a folder for each child, titling categories of film data by session, final curriculum review, and parent interview. I loaded this data into Studiocode (2005), software for film analysis and categorized it according to the five curriculum sessions. Curricular content categories required further titling, accompanied by clips illustrating the learning activities for each session.

Categories for examining data on teaching and learning interaction and behavioral change or learning based on Content Mastery Level (CL), Social Learning (SLT) and Social Cognitive Theory (SCT), were divided into four levels. All SLT and SCT coding encompassed four levels of marked stages of interaction and reproduction, or provided
evidence of children’s understanding of concepts during the learning process. Theories differed according to theory principles and should not be confused with content mastery coding. I arranged SLT principles according to stages of learning using levels to denote the highest level of successful accomplishment in teaching and learning interaction for reproduction, imitation, modeling, and observation. I coded the highest level 1, the lowest level as 4. SCT coding coincided with principles of cognitive development. Self-efficacy, self-regulation, self-confidence, and self-motivation received a level 1 code as the highest level of accomplishment and understanding. The lowest level was 4.

After the initial analysis, I created and cross-referenced the film data in the folders to code for emergent themes, trends, and patterns. See Figure 7 (p.62) for a breakdown of the initial coding process.
Figure 8: Diagram of Coding Strategy

**Disease and Treatment (D&T1)**
- **First Session:** Going to the Doctor
  - 1S
- **Second Session:** Germs and Special Care
  - 2S

**Coping Skills (CS2)**
- **Second Session:** Self-esteem
  - 2aS
- **Third Session:** Emotions & Feelings
  - 3S
- **Third Session:** Peer Concept
  - 3aS

**Behavior Management (BM3)**
- **Fourth Session:** Sleep and rest
  - 4S
- **Fourth Session:** Imagery and relaxation
  - 4aS
- **Fifth Session:** Anger Management
  - 5S

**Emergent trends and patterns (to be coded)**
- SLT-1, 2, 3, 4 / SCT-1, 2, 3, 4
- SLT-1, 2, 3, 4 / SCT-1, 2, 3, 4
- SLT-1, 2, 3, 4 / SCT-1, 2, 3, 4
- SLT-1, 2, 3, 4 / SCT-1, 2, 3, 4

**Curriculum Content**
- Learn how to use the CD player.
  - CD-1, 2, 3, 4
- Learn about the doctor’s kit.
  - DK-1, 2, 3, 4
- Introduce book, *I Feel Better With Music*
  - BK-1, 2, 3, 4
- Introduce Wong-Baker (1988) Face Pain Rating Scale (FPRS)
  - PM-1, 2, 3, 4
- Dramatic play with doctor kit
  - DP-1, 2, 3, 4
Each session folder contained sections of curriculum content categories taught in that session. The definitions, examples, and coding rules for each curriculum content category determined coding on the four levels as illustrated in Table 1. That rubric provides an example for coding content and references the first session, “Going to the Doctor.” I ordered the codes 1 through 4 according to the degree of comprehension, understanding, and/or ability in manipulation factors for mastery of content.

Table 1: Example of Coding Content

<table>
<thead>
<tr>
<th>Polly</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Session Category:</strong> 1S: Going to the Doctor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category:</th>
<th>Visual Clip:</th>
<th>Notes:</th>
<th>Code:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn how to use the CD player</td>
<td>Many repetitions of unsuccessful attempts before success with help from Mother Goose</td>
<td>Confidence level was very low, shy and timid to start</td>
<td>CD 4</td>
</tr>
<tr>
<td><strong>CD-1, 2, 3, 4</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduce book, <em>I Feel Better With Music</em></td>
<td>Child relates to book, Mother was provided the book in advance to introduce Mother Goose and characters</td>
<td>Engagement level was low, child already familiar with the book and wanted to get on with the fun</td>
<td>BK 3</td>
</tr>
<tr>
<td><strong>BK-1, 2, 3, 4</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduce Wong-Baker (1988) Faces Pain Rating Scale communication</td>
<td>Practice communication of pain levels</td>
<td>The child was not familiar with this rating scale and although she confidently reported understanding of the concept, she was unable to point to the correct face that</td>
<td>FPMS 4</td>
</tr>
<tr>
<td><strong>FPMS-1, 2, 3, 4</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
corresponded with how she said she was feeling

Dramatic play with Sock Monkey and Doctor’s Kit  

**DPDK-1, 2, 3, 4**

I watched the clips from the educational segments and coded content mastery using levels of understanding or demonstrated ability to manipulate on four levels. Level 1 represented the highest level of accomplishment and level 4 the lowest. This data-formatting method organized the data collection for my analysis and interpretation. I referred to field notes to begin building a logical chain of information. Table 2 demonstrates how I coded these categories in Studiocode for each child with the coding rules applied for the mastery of the CD player (Mayring, 2000).

**Table 2: Coding Rules for Analysis of Content Learning**

**Coding Strategy for all three Children**

<table>
<thead>
<tr>
<th>Category: Mastery of CD Player:</th>
<th>Definition:</th>
<th>Example:</th>
<th>Coding Rules:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD-1</td>
<td>Successfully manipulates CD player in order to play CD, exhibits high self-efficacy. Displays high confidence level.</td>
<td>Film clip shows child getting CD player and she manipulates the CD player efficiently.</td>
<td>All aspects of film clip shows mastery.</td>
</tr>
<tr>
<td>Category: Mastery of CD Player</td>
<td>Definition:</td>
<td>Example:</td>
<td>Coding Rules:</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------</td>
<td>----------</td>
<td>---------------</td>
</tr>
<tr>
<td>CD-2</td>
<td>Partially successful in manipulation of CD player in order to play CD, exhibits medium notions of self-efficacy, refuses help from mother until frustrated. Displays medium confidence level.</td>
<td>Film clip shows child getting CD Player and asks his mother for help after several tries. Successfully manipulates CD Player with help.</td>
<td>Some aspects of film clip show successful manipulation with or without help.</td>
</tr>
<tr>
<td>CD-3</td>
<td>Unsuccessful in attempts to manipulate CD player asks mother to do it for her/him. Displays low confidence level.</td>
<td>Film clip shows child getting CD Player and asks parent or sibling to manipulate CD player. Watches carefully.</td>
<td>Some aspects of film clip show successful manipulation with or without help.</td>
</tr>
<tr>
<td>CD-4</td>
<td>Disinterested and unengaged.</td>
<td>Film clip shows child asking mother to leave because of illness, lethargy, or disinterest.</td>
<td>Film clip shows lack of child’s engagement.</td>
</tr>
</tbody>
</table>

Table 3 demonstrates my organization of categories and applied SLT and SCT codes to content categories for each child (where applicable). Studiocode, a software analysis application, produces a matrix from coding. The codes referred to the applicable educational event/curriculum content category to pinpoint and help explain critical events as well as the participant’s learning and cognitive development.
For example, in the film clip folder examining the use of the CD player, I watched to see if the child was paying attention to the character of Mother Goose as she modeled using the player. Guided by four SLT and four SCT principles, I interpreted the level of learning and the child’s progress toward successful reproduction of modeling or mastery of the player. The level checklist for the child may use one, multiples, or all of the four principles that indicate learning through SLT. Also, SCT coded levels may include any or all of the four principles discerned on an interpretation basis for each curriculum event.

Table 3: Application of Social Learning and Social Cognitive Theory

<table>
<thead>
<tr>
<th>Child’s Name:</th>
<th>Session: 1S Going to the Doctor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Learning Theory</td>
<td>Social Cognitive Theory</td>
</tr>
<tr>
<td>SLT codes Represent:</td>
<td>SCT codes Represent:</td>
</tr>
<tr>
<td>Reproduction</td>
<td>Self-efficacy:</td>
</tr>
<tr>
<td>Imitation</td>
<td>Self-regulation:</td>
</tr>
<tr>
<td>Modeling</td>
<td>Self-confidence:</td>
</tr>
<tr>
<td>Observation</td>
<td>Self-motivation:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Curriculum content category folders</th>
<th>Curriculum content category folders</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CD Player</td>
<td>1. CD Player</td>
</tr>
<tr>
<td>SLT1 ___</td>
<td>SCT1 ___</td>
</tr>
<tr>
<td>SLT2 ___</td>
<td>SCT2 ___</td>
</tr>
<tr>
<td>SLT3 ___</td>
<td>SCT3 ___</td>
</tr>
<tr>
<td>SLT4 ___</td>
<td>SCT4 ___</td>
</tr>
<tr>
<td>2. Doctor’s kit</td>
<td>2. Doctor’s kit</td>
</tr>
<tr>
<td>SLT1 ___</td>
<td>SCT1 ___</td>
</tr>
<tr>
<td>SLT2 ___</td>
<td>SCT2) ___</td>
</tr>
<tr>
<td>SLT3 ___</td>
<td>SCT3 ___</td>
</tr>
<tr>
<td>SLT4 ___</td>
<td>SCT4 ___</td>
</tr>
<tr>
<td>Social Learning Theory</td>
<td>Social Cognitive Theory</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>SLT1 ___</td>
<td>SCT1 ___</td>
</tr>
<tr>
<td>SLT2 ___</td>
<td>SCT2 ___</td>
</tr>
<tr>
<td>SLT3 ___</td>
<td>SCT3 ___</td>
</tr>
<tr>
<td>SLT4 ___</td>
<td>SCT4 ___</td>
</tr>
</tbody>
</table>


| SLT1 ___                | SCT1 ___                |
| SLT2 ___                | SCT2 ___                |
| SLT3 ___                | SCT3 ___                |
| SLT4 ___                | SCT4 ___                |

5. Dramatic Play

Example: Mother Goose models how to use the CD player. If the child does not pay attention at all and Mother Goose has to repeat the modeling session over again, I coded this CD category in 1S (session 1) as SLT 4 (interpreted as a low level of interaction for teaching and learning and still in modeling stage) because there was no attempt by the child to observe or interact.

I had to decipher why the child was not interacting. I could code SCT 1 because it is possible that the child knows this information already and was bored. Interpreting the SCT categories as SCT 2-4 because the child has not attempted to imitate or reproduce the modeled behavior would take further analysis of each situation.

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*Analysis of stress reduction techniques.*

In order to address the last research question about how the children responded to the stress reduction techniques of the curriculum, I organized folders of film clips around specific educational segments. Implementations were not in the same order for each child.
(See Table 4). I copied the clips and re-categorized clips to subfolders according to the emotional response to the educational events. The subcategories became the emergent themes of educational elements as they surfaced in the data.

I examined the data in the emotional response folders for teaching and learning interaction using the SLT and SCT rubric (See Table 3, p. 66). I compared behavioral changes demonstrated by the participants and evidence of learning, developing categories for emerging trends, patterns, and theories. Flexibility within this system let me manipulate response categories and subcategories. For example, the subcategory for “unexpected responses” developed from an “adverse” category. See Chapter IV for a description of the emergent process in the breakdown of category headings. Table 4 provides an example using the educational segment breakdown for stress-reducing elements.

Table 4: Stress-Reducing Techniques

<table>
<thead>
<tr>
<th>Child’s Name</th>
<th>Session: 1S   Going to the Doctor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress-Reducing Techniques Segment Category</td>
<td>Emotional Response Category</td>
</tr>
<tr>
<td>Mood Management</td>
<td>positive response</td>
</tr>
<tr>
<td>Anger Management</td>
<td>little or no response</td>
</tr>
<tr>
<td>Relaxation Techniques</td>
<td>adverse response</td>
</tr>
<tr>
<td>1. Tool Kit</td>
<td></td>
</tr>
<tr>
<td>2. Music Selections: #4 Hush Little Baby</td>
<td></td>
</tr>
<tr>
<td>3. Sound Cradle</td>
<td></td>
</tr>
<tr>
<td>4. Imagery</td>
<td></td>
</tr>
<tr>
<td>5. Peer Concept</td>
<td></td>
</tr>
<tr>
<td>6. Book</td>
<td></td>
</tr>
<tr>
<td>7. Puppetry</td>
<td></td>
</tr>
</tbody>
</table>
Using the matrices that follow in Chapter IV to compare behavioral changes among the participants, I checked their levels of engagement and examined their attitudes in these eight stress-reducing categories. I developed eight stress-reducing categories, although more are illustrated in the example. See Chapter IV for a list of all the categories found in the legend for the cross analysis matrix. I created codes and folders corresponding to these emergent relationships of behaviors. The categories changed in significance with analytic examination to the point of subsuming categories into larger categories. As I analyzed the data thoroughly, re-coding when necessary, I created short visual film representations and hand-drawn data displays for deeper analysis. Studiocode matrices and color-coded text information on paper helped with organization.

The process begins with the film first, supported by written field notes to organize data. Analysis expands to include the analyzed interviews and finally enfolding the analyzed field notes. This allowed for concentration on film for deeper analysis without drawing early conclusions. This method helped me to determine the visual results that would become important in the findings of the research.

To gain a more complex, qualitative analysis of the film data, I chose a specific method to progressively analyze the three sets of data. I began with a Critical Educational Event Chart and Time Line (Table 5) (Miles and Huberman, 1994) for each child. This limited the organization, tracking, and listing of information to educational events deemed critical to the answer of the questions posed about the curriculum and music. I populated this timeline with film data, entering it into Studiocode. That application helped create paper
matrices with analyzed information. The matrices follow the sequence of activities during the curriculum implementation focusing on activities containing critical curriculum content as shown in Table 5. I populated the matrix after viewing and analyzing coded film clips, listing critical educational events and issues for each child in each session. I used the Studiocode codes developed in the initial analysis to track emotional responses, found “engagement” emerging, and identified degrees of learning. I began to see relationships forming, which indicated that the information was linking.

After determining the educational event folders, I found that I needed additional film folders concerning conditions or responses that were not educational events, but that were influential and related to interactive dynamics other than that of student and teacher. For example, the family dynamic of parental interjection, family interaction or influence, and sibling interruptions produced child responses during the teaching and learning process; these responses required a separate examination. I provided an example in the film, visually emphasizing an unexpected emotional upset during the curriculum process—one I considered as a critical event. In analysis, these were accompanied by appropriate notation of my interpretation of the cause of upset or a trigger factor. Within this charted framework I examined relationships between events and outcomes to determine emerging issues or emotional responses due to stress-related elements. The additional codes and notations depended on the curriculum content, the level of SLT or SCT, mastery, and whether stress-reducing techniques were involved.
### Table 5: Critical Educational Event Chart and Timeline

**Example for Coding for All Three Children**

<table>
<thead>
<tr>
<th>Session 1S</th>
<th>Session 1aS</th>
<th>Session 2S</th>
<th>Session 2aS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODES_____</td>
<td>CODES_____</td>
<td>CODES_____</td>
<td>CODES_____</td>
</tr>
<tr>
<td>Codes may include:</td>
<td>Parental Interruption Child Upset</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD Mastery 1,2,3,4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCT or SLT 1,2,3,4,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Doctor Kit</td>
<td>2. Food Pyramid</td>
<td>2. Mouth Care</td>
<td>2. When Scary Stuff Happens</td>
</tr>
<tr>
<td>CODES_____</td>
<td>CODES_____</td>
<td>CODES_____</td>
<td></td>
</tr>
<tr>
<td>Dramatic Play Upset</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. When Scary Stuff Happens</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES_____</td>
<td>CODES_____</td>
<td>CODES_____</td>
<td></td>
</tr>
<tr>
<td>FPRS</td>
<td>CODES_____</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES_____</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Dramatic Play:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unexpected emotional response</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES_____</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This framework created a within-case scenario that encompassed learning in an environmental context. Cultural elements proved a minor factor in the parental relationship with the child and the child’s reactions to elements of the curriculum or the music options. Environmental contexts did bear a direct relationship to emotional eruptions, adverse responses to curriculum content, and heightened emotional states. I found intense responses
to music and content that could be associated with traumatic medical issues. For example, Tommy responded strongly to a song (*Put a Big Smile on My Face*) with content about needles that hurt. This was important because his disease-related issues included taking shots regularly, which he found to be stressful. This was evident in the final curriculum review in the film, as the child related strongly to this music and thought it was important to share this information with Mother Goose. Polly gave me an unmistakably strong emotional response during a teaching event about treatment of side effects. After the introduction of a peer concept about hair loss, the father commented how the child in the story (book) had lost her hair and was bald like Polly. The child burst into tears and said, “not bald like me…” because her hair had recently started to grow back. This clip is presented in the film. This method of analysis included differentiated issues of teaching and learning. It allowed focus on educational theatre and music as learning tools, and the development of self-efficacy and self-confidence for each child.

A cross-case film data analysis resulted in a combined case dynamics matrix (Miles & Huberman, 1994). The matrix, created in StudioCode and documented on paper, links critical educational events and emergent critical issues across cases (Figure 15, p. 114). The comparing of critical educational events helped reveal further emergent patterns, trends, and themes. These concerned curricular problems, educational theatre effect, music affect, and other issues. The matrix supported the visual film-analysis process, creating an outside picture for more film data categories and deeper analysis. This cross-case analysis further helped me to organize my film data categories to be subsumed by new ones.

I used the charts, matrices, and developing pictures to draw conclusions about what the data disclosed at different points during analysis. I drew what I believed to be forming
relationship scenarios by hand. My favorite “analysis doodle” were trees with heart roots and leaves and little heart musical notes flying through the air, in an effort to organize responses stemming from root levels and musical influences. These doodles were sufficient for an emergent picture. This process rendered information for the next charted procedure deepening the film analysis. This progressive process produced the findings for the final film analysis, triangulated analysis, and representation.

I completed the first two curriculum content sections to demonstrate how the matrix works. See Table 6 containing examples of coding for Content Mastery Level (CL), Social Learning Theory (SLT) and Social Cognitive Theory (SCT) levels. A clearer picture is evident in the resulting Studiocode Matrices presented in Chapter IV.

Table 6: Combined Case Dynamics Matrix Coding Sample

<table>
<thead>
<tr>
<th>Session Number</th>
<th>Child 1</th>
<th>Child 2</th>
<th>Child 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. CD Player</td>
<td>CODES___</td>
<td>CODES___</td>
<td>CODES___</td>
</tr>
<tr>
<td>Child insists on manipulation of CD without assistance from Mother Goose or mother</td>
<td>Manipulation of CD player is difficult for child 2 to grasp, mother assists</td>
<td>Child is lethargic and cranky, refuses to engage / mother manipulates CD by showing child steps for the child’s next attempt</td>
<td></td>
</tr>
<tr>
<td>Session Number</td>
<td>Child 1</td>
<td>Child 2</td>
<td>Child 3</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2. Doctor Kit</td>
<td>Child insists on continued play with CD player during introduction to doctor kit. Parent and child play with CD player, diluting attention and engagement</td>
<td>Child dives into doctor kit with much enthusiasm and shows Mother Goose what the items are and what you do with them on Mother Goose’s Sock Monkey (used in Recreational Therapy) Improvised music selection #5, Dramatic Play early. It makes sense to present doctor kit educational event at this time.</td>
<td>Child seems exasperated with the notion of introducing the doctor kit / mother assures me that the child was thoroughly familiar with this concept and it would be best to move on / mother suggests that a book may be a good choice at this time.</td>
</tr>
<tr>
<td>3. Book</td>
<td>CODES_____</td>
<td>CODES_____</td>
<td>CODES______</td>
</tr>
<tr>
<td></td>
<td>Familiar</td>
<td>Familiar</td>
<td>Does not grasp concept</td>
</tr>
<tr>
<td>5. Dramatic Play CODES_____</td>
<td>Child 1: Unexpected emotional response during dramatic play with doctor kit</td>
<td>CODES_____</td>
<td>CODES_____</td>
</tr>
<tr>
<td>Session 1aS</td>
<td>1. Nutrition</td>
<td>CODES____</td>
<td>Child 2: Eats scary monster food/ mother surprised</td>
</tr>
<tr>
<td>2. Overcome nausea</td>
<td>No knowledge of nausea techniques</td>
<td>CODES____</td>
<td>Mother takes food and drink from tool kit. Suggests a substitute that represents item to place into tool kit to avoid child upset</td>
</tr>
</tbody>
</table>

| Session 2S | 1. Germs | Parental Interruption | CODES____ | CODES____ |
| Child Upset | CODES____ |
| 2. Special Mouth Care | CODES____ | CODES____ | CODES____ |
| 3. Juicy Alternatives | CODES____ | CODES____ | CODES____ |

| Session 2aS | 1. Self-Esteem | CODES____ | CODES____ | Child 3: Very confident in use and ownership of tool kit / self-celebration | CODES____ |
| 2. When Scary Stuff Happens: | Dramatic Play Upset | CODES____ | CODES____ |
| 3. Comfort | CODES____ | CODES____ | CODES____ |
The third step involved an explanatory effects chart (Miles and Huberman, 1994). The explanatory effects chart combined critical event information and trends, themes, and patterns emerging from the analysis and synthesis of the combined information in the case dynamics matrix. Here, I organized film data for artistic representation by entering emergent important scenarios and film-clip information. I indicated learning and emotional issues, music and emotional affect, and began causality suppositions about the human response in learning. The chart fashioned an emerging picture providing a visual display of cross-referenced findings and deeper interpretation. See Table 7.

Table 7: Explanatory Emotional Affects Chart

<table>
<thead>
<tr>
<th>Critical Events</th>
<th>Themes and Trends</th>
<th>Patterns</th>
<th>Film-clip Effect</th>
<th>Music Affect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound Cradle</td>
<td>Resistance</td>
<td>Hyperactivity</td>
<td>Polly: kicking feet and crying</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Relaxation technique</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>energetically then ineffective</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>in sound then effective</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>cradle Relaxed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Affect</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jumps right in</th>
<th>Engages immediately</th>
<th>Mary: Breezes through</th>
<th>Effective</th>
<th>Relaxed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relax to Sound</td>
<td>Cradle</td>
<td>Relaxes immediately</td>
<td>Positive</td>
<td>Affect</td>
</tr>
</tbody>
</table>
Following the separate analysis of all of the triangulated data, I extended and used the explanatory effects chart (Table 7) to include critical elements of the analyzed interview and field note data, thus completing the information set. I supported the chart with analyzed triangulated data for a final analysis, creating a within-case triangulation for a deep and final analysis of individual case data. This further modified my categories, as the film data and emergent themes formed a storyline mapping for the final film representation (Miles and Huberman, 1994). I drew conclusions about these findings and scripted an initial voiceover narrative.
The film data analysis flow chart (Figure 8) outlines the process of watching film data and breaking down critical educational issues to complete a within-case analysis matrix and timeline for all three children.

Finally I conducted a cross-case analysis of critical events, emerging themes, trends, and patterns, including all coded information in the Cross Case Dynamic Matrix. Then I analyzed across cases with triangulated data, discovering additional information for further categorization of my clips. This visual and supporting data allowed a deeper analysis from which to draw conclusions about the curriculum affect and the participants learning.

*Interview data collection, coding, and analysis.*

In order to avoid possible influence or bias about interview respondents the parents met with an independent qualitative researcher during the final session of the program. She administered a videotaped interview using an interview questionnaire (Appendix F). I made the filmed interviews available for the independent interviewer and used them myself to
support, complete, analyze, and interpret the written answers on the questionnaire. I included portions of the filmed interview process in the final film representation.

The interview data collection differed from the film data in that the interviewer inquired about behaviors outside of the program sessions. These specifically concern learning self-efficacy and self-regulation behaviors and use of the tool kit. We sought to understand how the stress-reducing techniques affected the children (Table 4, p. 68). The questionnaire addressed learning demonstrated at home and in other outside situations. The interviewer also asked for elaboration based on the parent’s opinions about behavioral changes they attributed to the program.

The independent qualitative researcher conducted the interviews, analyzed the data, and reported her findings. She used Atlas.ti (2005), computer software to develop coding schemes for the analysis of the collected qualitative interview data. Atlas.ti is a sophisticated software system used for qualitative research analysis that organized the collected interview data into coded segments. Another feature of Atlas.ti is a visual network diagramming of complex relationships and tracking of emerging trends or patterns from textual dialogue about experiences or events. The interviewer transferred the film data into Microsoft Word as text and entered, coded, and analyzed the data using Atlas.ti. The analysis process allowed preset coding, emergent coding, and personal notes or memos throughout the process. Atlas.ti produced diagrams that helped the independent reviewer and me visually track emerging concepts or theories and grasp forming relationships. We used this visual information in displays as a representation of the data relationships formed from the interviews.

I separately analyzed the same interview data collected by the independent interviewer. We both began with a coding scheme consisting of the four categories listed in
the interview questionnaire: disease and treatment information, coping skills, and behavior management. We included the specific stress-reducing techniques as organized in the interview questionnaire and highlighted in Table 4 (p. 68). We each developed a diagram of data relationships that included patterns, themes, and trends from the data, and then we provided a written report of findings and conclusions. We compared our individual conclusions. We conferred, confirming our conclusions. I synthesized the information in a textual report and asked the independent reviewer to review and confirm my synthesis. This report helped pinpoint critical educational events and issues from the analyzed interview data for qualitative analysis of triangulated data.

After analyzing the written interview data, I created new categories for the confirmed findings to make them available for the final film representation. I used Final Cut Pro 5 HD to choose sections of the filmed interview sessions, creating visuals for the scripted voiceover narrative that concerned findings about behaviors outside of the program. I decided to let the parents speak in their own voices, as that was much richer in meaning and I looked for visual cues and nuance of gesture in the story narratives that demonstrated research findings. This combination of tandem textual analysis and film-based imaging helped validate the findings by providing multiple perspectives (Miles & Huberman, 1994) for the analyzed interview data. I used three levels of film representation. The first was the parental interview interpretations of behaviors outside of the program. The second was the independent interviewer’s analysis and interpretation of parental interview data. Third was my own analysis and interpretation of parental interview data.
Field Notes collection, coding, and analysis.

Field notes were the final part of triangulation, taken immediately after each curriculum session and analyzed later in Atlas.ti. As the character Mother Goose, I recorded symbols, color-coded with markers and made informal handwritten notes in the margins of my daily curriculum when possible, pointing to specific issues for further notation after the sessions were over. When there was time to write about the day’s experiences, I extended my field notes. I included insights and observations of the children and their responses, varied problems that arose, and areas of interest for further analysis or study.

I kept these field notes in a notebook created specifically for this purpose. The notes embodied the structure of curriculum sessions and aligned the field note sheets with the curriculum content of the day. I arranged the sample sheets (Figure 9) directly behind the curriculum guide sheets for easy access to make notations and references after each session. These sheets helped map the educational events, experiences, and accompanying observational data. Additional space allowed unexpected observations providing as many sheets as necessary for full coverage of important data considerations. This strategy provided initial impressions from multi-layered perspectives of teacher/artist/researcher. Thus, ensuring clarity and field note coverage in preparation for analysis at a later date. Field notes also helped to provide details during film analysis as well.
Figure 10: Field Notes Sample Sheet

<table>
<thead>
<tr>
<th>Name of Child:</th>
<th>Session: 1S  Going to the Doctor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content Category:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher Notes:</th>
<th>Artist Notes:</th>
<th>Researcher Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctor Kit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Book Introduction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FPRS Introduction</td>
<td></td>
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<tr>
<td>Dramatic Play with Doctor Kit</td>
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</table>
Upon program completion, I analyzed my field notes, reading over the sessions several times before transcribing them into Atlas.ti (2005). Coding categories coincided with the categories and subcategories for the film-based analysis process, but included categories for different or emergent themes and patterns discovered during analysis. I categorized Atlas.ti folders by children’s cases and educational segments, and coded categories of my perspectives as teacher/artist/researcher. I clustered, sorted, and analyzed the textual entries in the Atlas.ti software program, which produced a diagram of data relationships that emerged during analysis. I wrote a report reflecting conclusions drawn from my analysis. The report included critical events and elements and a collation of the analyzed notes accompanying the filmed experiences.

*Qualitative analysis of triangulated data.*

After analyzing the film data, the interview data, and the field notes, I consolidated the data with the film data information charted in the original Critical Educational Event Chart and Timeline. I arranged film data and codes from the three case studies side by side in categories according to emergent frames of reference for each child. I added the charted interview information for each child’s chart. The resulting three reports represented categories, subcategories, emerging trends and patterns from the analyzed film data, my field notes, and the interview data. I reexamined the film folders, making categories as necessary to use in the final film presentation, then drafted a written report on the conclusions.

After I completed the three within-case matrices, I created the combined cross case dynamics chart (Table 6, p. 73) to analyze the new triangulated data. I reanalyzed the film clips in folders and textual notes for developing insights. The triangulation of data (Table 7, p. 89) helped me analyze information and reach my ultimate conclusions. I used the
triangulated analysis to help me to answer the research questions about the study and to reorganize film folders to assist in the final data analysis for the film presentation. I drew conclusions about the triangulated data and rendered the film representation.

I worked sequentially, logged the steps, and made separate notebooks for triangulated information. The written report – including findings, multiple perspectives, reflections, and final remarks about the analysis process – became the basis of the film script and the storyboard for the film representation.

Visual and Textual Representation

I used a storyboard layout, narration, and edited film clips, to form the film representation. This documentary style film shows and explains the research project from beginning to end as a coherent story. I scripted the report of the findings, approaching it personal perspective of researcher for the visual representation. I provided a written portion of the dissertation as well.

The film is roughly one hour long. My intended audience includes educational researchers, medical workers, and parents. The results show the joy and frustration of teaching and learning through educational theatre. The voices of the children and parents are heard and may be directly interpreted by the viewer. The film provides opportunities to interpret emotional responses and curriculum affect. There are demonstrations of how elements of theatre and music-assisted learning affected these young children, and indicate the degree to which stress-reducing elements changed their behaviors. Long after they have grown to adulthood, I may continue to revisit memories and examine my participants in minute detail—their expression and body language captured on film. The final product
provides the powerful addition of visual images to the traditional methods of reporting academic research findings.

Conclusion

The focus of this study was to examine teaching and learning of crucial health education, coping skills, and behavior management techniques for preschoolers diagnosed with cancer. I developed the arts-based strategies for relaxation and coping to help minimize risks involved with medical trauma as well as encourage learning and love of music, and help to heal the human spirit.

Knowledge and understanding gained from this study should appeal to a broad educational audience and provide valuable insight about how critically ill children learn competence in self-control and self-efficacy. This adds to literature on coping skills, health education, music-assisted preschool learning, and arts-based curriculum and instruction.

Chapter III presented the arts-based curriculum, the film-based educational research methodology, and artistic representation. Chapter IV provides the results of the triangulated analyses and three case profiles.
In this chapter I delve deeper into the story. I share my perspectives and creation of lenses I used to view and understand data during emergence and identification of resonating educational themes. In this chapter there are explanations of emergent educational themes, and I establish context with a thick description of the three children participants.

Explanations of cross-analysis information include reminders of the film coding process and elaboration on the results. I begin with a structural standpoint reflecting the push and pull experienced between educational ideologies within my school of education department. This
included tension between a traditional school of thought and the emerging arts-based educational research expectations about methodologies and writing in academic arenas.

The purpose of this qualitative study was to investigate how the arts-based curriculum and tool kit of materials affected three children diagnosed with cancer. The examination focused on the curriculum affect on the children during implementation. The investigation of curriculum effect pertained to children’s understanding of content. I noticed effects or changes in the areas of social and affective learning associated with the delivery of health education for cancer-related issues and well being. I focused on emotional responses to understand how stress-reducing elements of the curriculum acted on a child’s emotional state. The following information helps to explain the focus of the triangulated analysis strategy.

*Triangulated data sources.*

The arts-based educational research strategy for triangulation of data collection and analysis included film, parental interviews, and field notes. This section details that application.

I used film analysis to investigate each child’s emotional responses during teaching and learning events during the curriculum implementation. This allowed close examination of changes in emotional states and affective learning. An emphasis on emotional responses developed because of the curricular focus on controlling emotional behavior and providing teaching opportunities for affective learning.

The independent interviewer analyzed the parents’ interviews separately, furnishing information about learning that parents attributed to the curriculum. These results were important to understand what the child learned. The questionnaire focused particularly on
child behaviors at home and at places outside the implementation site. This information helped clarify effective curriculum aspects. The results helped to connect the film data that show the child’s emotional responses during curriculum implementation to evidence of child learning.

Field notes written at the end of each curriculum session provided contextual support. The three perspectives of teacher/artist/researcher provided a set of categories for the notes. These notes contributed to the body of information through reflection on the teaching experience during implementation. The analysis of these notes provided results that helped explain curriculum affect as related to the teaching artist, family dynamics and cancer issues. They helped indicate how these elements added or subtracted from an overall curriculum effect.

*Emergent concepts from triangulated data.*

Now, I clarify and connect the research concepts used to analyze the data in the following information. Comparison and correlation of the child’s emotional responses to the teaching and learning of curriculum events helped answer the research questions. My analysis of film data included what, when, and how emotional responses occurred during the learning process. I present these data in the film, allowing viewers to interpret their own observations. Analysis of learning levels by content mastery (CL), Social Learning (SLT) and Social Cognitive Theory (SCT) coding revealed patterns in the children’s learning. These observations helped understand teaching and learning interactions.

Emergent patterns helped explain how the three children responded to educational content about stress reduction. This created a focus on how that information connected to the children’s understanding of disease and treatment information, coping skills and behavior
management techniques. A teaching artist focuses on children’s emotional responses during the teaching and learning process to implement educational content. Over the years, I’ve learned to continually analyze these responses during the teaching and learning process. Though a cognitive scaffolding process, I increased my knowledge base for each child’s learning profile (Tomlinson & Allan, 2000). This information was important to gauge the child’s ability to connect in the moment with stress-reducing experiences. Thus, I provided differentiated and individualistic opportunities to engage each child for affective learning.

During the film data analysis, I analyzed, interpreted, and produced results indicating levels of engagement, emotional responses and whether the child demonstrated learning. I connected levels of engagement and emotional responses to findings of child learning. This information emphasized the aspects of the curriculum that were effective, justifying further study for the program in order to refine the curriculum to its full potential.

I aligned elements of individual stress-reducing specifics and health education needs within triangulated data. This mode of alignment helped extrapolate information about individual learning goals. In each case study I considered individual learning expectations to help discover how the curriculum affected overall learning goals. Each child’s cancer specifics related directly to how this child responded to stress-reducing elements.

Emergent Thematic Educational Elements

The above information was essential to understanding the study, my explanation of the triangulated analysis process, and how I extrapolated emergent themes. Themes and patterns emerged during the first part of the film analysis process. I watched the film data repeatedly, gaining an overview while taking notes. As previously explained in Chapter III, I analyzed the film in Final Cut Pro and then turned to Studiocode to apply basic learning
concepts. These concepts included mastery of content, and SLT and SCT by Bandura (1973; 1977; 1986; 1989; 1997; 2004a). I implemented a cross-analysis of the three case studies. An independent interviewer conducted parent interviews, and then we separately analyzed each case before conferring together about our findings. Analyzed field note results contributed to the triangulation of data. Finally, I synthesized all data in a final analysis and answered my research questions.

During analysis, I focused on emotional responses. These “affect displays” were affective reactions demonstrated by a change in an emotional state attributed to a child’s learning experience. In addition, there was a focus on the child’s expression of feelings or emotional responses to stress-related issues raised during the curriculum implementation. As I watched the film data to analyze the children’s emotional responses, I noticed those emotional responses connecting to educational elements, creating patterns and themes. The following identified patterns of emergent data became primary categories. Primary categories included engagement, emotional responses, empathic engagement, experiences and expression, which I developed into codes. Although it did not become a code, educational elements emerged as another primary category. These elements included empowerment, exploration, esteem and efficacy. I left the educational elements subcategory information where it surfaced in the film data. I draw attention to these educational elements, listed previously, to highlight the information contributing to the overall curriculum effect. All of the following categories from the film data helped to answer the research questions:

Engagement

Emotional Responses

Empathic Engagement
Experience

Expression

Educational Elements Subcategories:

Empowerment

Exploration

Esteem

Efficacy

The following information explains the core thematic educational elements.

Engagement

Student engagement emerged as a consistent teaching and learning factor. There was a consistent connection found between engagement and emotional responses. Engagement denoted focused student engagement, lack of engagement, or a degree of engagement. The application of coding for levels included content mastery (CL), Social Learning (SLT) and Social Cognitive Theory (SCT). SLT and SCT often reflected commitment issues affecting levels of engagement, like family dynamics and self-confidence. I observed the children’s attitudes when engaged to determine whether a learning strategy was successful. These observations helped determine how I would apply content mastery, social learning and social cognitive theory coding levels. For example, “STOP” was an anger management behavioral exercise, which stood for “Stop, Think, make an O with your mouth and breathe three times, and Please be polite.” A STOP curriculum event film clip depicts the implementation with Polly, her mother, and Mother Goose. Mother Goose modeled the STOP exercises, the mother coached, and the child reproduced the exercises. The coding for SLT in this case was level two because, although the teaching and learning interaction provided Polly with a way
to reproduce all portions of the exercise correctly, she was unable to reproduce the exercise without continued engagement in modeling and coaching. The coding for this event included “engagement” and SLT2 for her successful interaction during the teaching and learning process. The content mastery level coding was lower, at CL3, because Polly continued to need modeling and coaching to reproduce the behavior. A level SCT3 indicated that the child did not fully understand how or when to reproduce the behavior.

The engagement category encompassed attitudes. For example, a child may consider a learning activity to be “cool” or rewarding, or alternately, that participation in a learning process was an embarrassment too painful to endure. These attitudes signified engagement and affected learning. An example from the film presentation shows Tommy resisting engagement during a guitar playing session. I interpreted his unwillingness as partially due to an older sibling’s attitude toward program participation. This family dynamic seemed to affect Tommy’s attitude toward engaging in activities for learning at times. The film representation shows this sibling attitude permeating some educational events. Tommy refused to engage in this example, yet he moved around in the chair to watch Mother Goose as she put her guitar away. I interpreted this movement in the chair as eagerness to engage, in spite of embarrassment.

Learning for behavioral change surfaced as a reciprocal effect when the child interacted with influences in the environment. For example, at times family members needed to positively engage or participate in educational events for optimal affective learning. During peer concept events, engagement was paramount to connect disease and treatment concepts to one of the concept characters, such as Itsy Bitsy Spider. The children’s attention (engagement) was necessary to teach coping skills and behavior management techniques.
The results indicated that if someone in the family refused to participate or disengaged from the implementation process, the child followed suit.

Parental ideas about participating varied. For example, Tommy’s father at one point during a relaxation exercise using imagery (depicted in the film) relaxed completely, disassociating from the exercise as a learning experience for the child. Tommy, to reengage interaction, used physical contact to stir his father back into participating. This emotional response to re-engage the parent illuminates the predicament of the parents with children diagnosed with cancer. They must receive consideration as part of this curriculum. Understandably, the parents were terrified and stressed because their children were sick. These kinds of parental responses were intertwined with the children’s learning experiences.

In teaching behavior management for stress reduction, the ability to fully engage the learner is key in affective learning. For example, to make sure a child experiences relaxation, he/she must display observable signs of full engagement. In teaching concepts for self-regulation of calming and relaxation techniques, the child must experience the mind-body sensation of full relaxation in order to understand how to reproduce the technique. Children in the film display these changes in emotional responses. The Sound Cradle experience provides a good example. In the film, you can see a state of relaxation occurred across cases. However, getting the children into the Sound Cradle required a full array of teaching strategies including modeling, coaxing, and to negotiating. I demonstrated how to get into the cradle for the first child, Mary, and then added Mother Goose’s blanket to help coax her in, providing a soft place in which to lie. To coax the second child, Tommy, I put his personal blanket in with his stuffed dog. Polly expressed strong negative emotional responses after lying in the cradle, Mother Goose negotiated with the child reaching an agreement that the
mother would go first (to model), followed by Polly. After lying in the cradle, the child needed to engage for a length of time and fully to experience the change in her emotional state produced by the sound vibrations.

Understanding what motivated a child to engage consistently and fully was valuable knowledge. Low levels of engagement among the children may have stemmed from their phases of treatment, illness, or the happenstance that the curriculum event activities held no appeal for them. Different stages of social and psychological development requiring parental participation or social negotiation sometimes made it harder to engage children because of family influence. This influence normally helped or hindered engagement and teaching. This was not always the case. Mary engaged fully without a parent present. I believe that was due to her higher level of social and emotional maturity. She exuded confidence, negotiated socially without help, and was comfortable away from her parent. Several educational segments in the film show her parent was not present at all, yet the child fully engaged. The mother mentioned that her absence might maximize the teaching and learning experience, as the child was able to engage fully without a sense of being monitored by the parent. In addition, this parent stated often that her child was a “big girl” and probably preferred having Mother Goose all to herself, apparently a strategy to build confidence and self-efficacy. It appeared that mature levels of development in these areas enhanced Mary’s ability to engage for teaching and learning.

Emotional Response

Emotional responses often arose in the children from feelings influenced by the teacher or a family member that disrupted or reinforced learning. Conditions that affected whether the child engaged, disengaged, or responded negatively, affected teaching and
learning opportunities. As a teacher, a negative response forced me to work harder to evoke a positive emotional response. The emotional response category for this study references an emotional shift that drove attention. This category addressed the display in behavioral change evidenced during the teaching and learning process. The child became attentive to the point of a visible increase in emotional response. An emotional response indicated that a learning strategy would elicit one of the following responses:

1. Motivate the child to participate or engage in an educational process.
2. Motivate the child to express feelings verbally or artistically.
3. Trigger expressions of displeasure, disrupting the teaching and learning process.
4. Shift to a behavioral mode of indifference, an internal process that may include vicarious learning or redirection of attention to thought processes disabling the current learning process.

The emotional responses provided insight into personal sources of stress. Mary’s mother told me in the curriculum design session that I needed to address her daughter’s anger toward the younger sister. The mother explained she believed that her daughter transferred anger stemming from her inability to cope with the stress she felt from cancer issues. The parent said that the worse Mary felt physically and emotionally, the more anger escalated during interaction with her younger sister. In the film, the anger issue became evident during discussions with Mary about coping with stress relating to her sibling. Mary’s emotional responses provided information about how to proceed with affective learning strategies.

One demonstration of an unexpected emotional response that led to affective learning and engagement arose in a Sound Cradle experience presented in the film. Mary relaxed,
evidenced by body posture: her hands were cradling her head and her legs were limp. She was in an open body position while discussing her experience. Discussion during and after this experience, while children were still in the cradle, helped me understand how the experience affected them. Mary unexpectedly explained that this relaxing experience was possible because her sister was not present to “jump all over my head.” This emotional response provided another teaching opportunity to address this issue.

*Empathic Engagement*

Empathic engagement is the term describing the fostering of emotional involvement to create a cognitive and emotional experience. Peer concept characters of Itsy Bitsy Spider, Little Bear, and Mother Goose helped the child explore feelings about cancer-related issues and allowed me to explore the child’s sensitive and personal issues. During analysis, I investigated and evaluated the degree of affective interaction with the peer concept characters provided. Itsy Bitsy Spider was the peer concept puppet with cancer. Little Bear, the stuffed animal provided for comfort in the tool kit, reflected a healthy child. The accompanying book reinforced these character health concepts. Data results established the characters the child identified with most often. I looked for an emotional connection or impact through affective displays from the child during interaction with a peer character, as well. An emotional response to a peer character’s behavior and thoughts helped me understand the child’s sources of stress stemming from personal issues or fears. Apparently enhanced by a child’s ability to empathically engage with the characters, these resulting affective learning events seemed substantially potent and usually took place during dramatic play. An example in the film helps to explain this affective learning interaction. Mary associated well with my oversized Itsy Bitsy Spider puppet, diagnosed with cancer. Mary displays affection and
empathy in caring for her own child-sized Itsy Bitsy puppet. After a personal connection developed between Mary and Itsy Bitsy Spider during dramatic play, the child demonstrated responsibility for care of the puppet indicating substantial empathic engagement. Mary initiated ideas she learned from the curriculum about what to do to try and help the spider feel better. The child displayed affection and empathy in caring for both puppets. Armed with this revelation, I transferred affective learning and stress reducing concepts more successfully.

Polly reacted differently. The introduction to my Itsy Bitsy spider went well and I felt that empathic engagement had developed the point where I could present the child-sized Itsy Bitsy to Polly. Immediately after presentation, she threw her Itsy Bitsy puppet into her sister’s belongings. In this case, her emotional response indicated that the child had chosen the other character, Little Bear (representing the healthy child) to associate with in peer concept work. I transferred the educational concepts to focus on Little Bear. Her emotional response indicated that Polly wanted to associate with and be responsible for the teddy bear’s comfort. I’m not sure what the significance of this choice might be. Perhaps Polly preferred bears better than spiders, or one cloth texture over the other, or maybe she did not like the way the spider puppet moved. No evidence indicated that she chose the “healthy” peer concept character over “ill” the character with cancer. The importance of providing a choice of character was so the child could empathize with one. Once empathy developed, the child became more receptive to affective learning techniques.

Experience

The learning experience elicits various emotional responses. However the “experience” category denotes a physical stimulation producing a shift in emotional
behavior, even if briefly. In my analysis of these learning experiences, the most impressive and consistent positive affective response occurred during the Sound Cradle event. The Sound Cradle is a four-foot long wooden cradle that forms a resonating sound chamber. Piano strings stretch along each side. The child lies inside. When strummed, the strings provide a droning sound. In addition to making this drone, the sound carries through the wood to vibrate the bones of the body. Theoretically, vibrations in the fluid of the body also provide a gentle massage to internal organs. Cradling gently, indiscernibly, distributes the fluids through motion. The feeling encompasses a comprehensive physical vibration massage throughout the entire body. When cradling, there is a sensation of floating, as in a cloud or a boat. Polly was undergoing treatment with severe side affects that affect the nervous system. The film shows the child’s substantial and visible mind-body relaxation when Polly was in the Sound Cradle. This music affect occurred across cases.

Expression

Emotional expression, whether artistic, verbal, or gestured, varied in intensity and display. The curriculum design focused on relief of chronic stress and emphasized the use of the arts including music, theatre, and dance to teach healthy ways to express that are negative or positive feelings. The film shows this emphasis as it was embodied in the children’s expressions. I prompted the children to display expressions in different forms especially during behavior and mood management sessions. Two examples in the film occurred in the anger management educational segment and centered on Tommy. These images show him swatting at a chair at the beginning of the musical selection and dance stomping to an anger musical selection.
Whether spontaneous, encouraged, mediated, or evoked, each expression represented a mood. A mood is an affective state that depicts a surface state of emotional response. Mood responses seemed regulated by an intuitive response to the environment, physical states, or social interaction. I observed that some emotional responses and moods expressed during the curriculum implementation were of a different quality than usual, and they often seemed ingrained and repetitive, as in learned habit. These occurred most frequently during social negotiations with family members during teaching and learning events.

Two examples included Tommy’s interactions within his family’s dynamic expressed repetitively. First, when upset with a sibling he would swing at her, making a “mad” face or angry expression to show his displeasure. Second, sometimes Tommy responded to attempts to engage him by withdrawing and showing discontent, as if he did not feel well or felt like not interacting socially. This would be his state or mood until negotiations brought about engagement. I came to anticipate these expressions of displeasure and counteracted with strategies to avoid conflict between the siblings. Separating them physically or incorporating the sister into the activity first seemed effective. As I got to know him better, I provided gender-related scenarios or items of interest to elicit engagement.

Using different arts exercises as coping strategies was a difficult concept for the children to grasp. Results show little evidence of learning to use arts expressions as a coping strategy. The children’s displays of simple enjoyment or moody displeasure during arts exercises was most likely due to spontaneous emotional responses to the environment or repetitive patterns of behavior occurring within the family dynamic.
Educational Elements

I categorized curriculum goals into specific segments such as health education, coping skills, or behavior management. These segments facilitated my assessment of curriculum affect on the participants. Consistent overall affects on the children during cross-analysis emerged under observation and it became easy to interpret responses in educational terms. The educational elements were based on the children’s emotional responses. These educational terms included empowerment, exploration, esteem, and efficacy. These elements were different from the coded thematic elements in that they were prominent factors emerging from the observations during the teaching and learning process. However, they did not fit into a firm educational niche or category. These elements overlapped and it was very difficult to extrapolate this information. The elements were consistently apparent, but not prevalent enough to justify a category for analysis.

I found it difficult to link my observations involving the learning of these educational elements as attributed directly to the curriculum. However, they were important enough to examine as an integral part of the analysis process to determine curriculum affect on the children. Family dynamics emerged as an important factor in connection with these elements. These elements manifested clearly in the final child reviews presented in the film. I categorized them collectively because they overlapped and emerged while investigating curriculum affect on children and during assessment of children’s learning, usually as brief but important.

Empowerment.

“Empowerment” results from a process used to increase a child’s capacity to make choices for self-desired outcomes. This process enabled the children to self-regulate through
a range of options provided in the curriculum. I observed a sense of empowerment in the children when they demonstrated knowledge learned from the curriculum. This was particularly evident when the children demonstrated personal decision-making strategies to solve problems. There were multiple choices provided for self-regulation of mood or behavior management. However, not all children were able to demonstrate self-regulation. Although they could verbalize some learning concepts about self-regulation of behaviors during discussion, I saw little evidence that two of the three children grasped these concepts fully. All the children showed some degree of emotional responses I attribute to a sense of empowerment and ability to self-regulate, especially during dramatic play. There was little evidence of curriculum affect for learning empowerment, as self-empowerment was a difficult concept for young children to learn. Through the curriculum process the children demonstrated an expansion of their ability to exercise self-regulation. They learned strategies that included an array of personal choices. All displayed a sense of empowerment from time to time, particularly through ownership of the tool kit and contents. This is evident in the film.

*Exploration.*

“Exploration” describes how the children examined or explored materials and concepts during learning experiences. The children’s degree of emotional responses varied, but all children ultimately explored educational items, issues, art forms, their relationship to Mother Goose and characters, and artistic expression. In the film, Polly highlighted this exploration process during a particularly difficult session. She was slow to engage with stress-reducing activities and concepts. Finally, Polly connected to an event, which included dancing with scarves accompanied by relaxing Native American Indian music from the CD
set. This activity engaged the child and she explored different ways to use the scarves. This event proved a successful strategy only for the girls: Tommy expressed no interest in dancing with scarves.

Another example of exploration involved Tommy. During a segment for anger management, we had a discussion about how stressful issues evoked anger. After that I introduced strategies to use healthy ways to relieve anger-induced stress through high-energy anger music selections and dance. The dance included making loud sounds, jumping and stomping. The child was not comfortable with noise making, but connected with jumping and stomping! This is evident in the film.

Esteem.

Self-esteem encompasses self-beliefs that play a large role in motivation for student engagement. I observed high levels of self-esteem across cases, originating from correct, knowledge-based responses. Usually, these responses stemmed from a joyful experience, such as providing correct responses, demonstrating content mastery, or self-initiated sharing of previous knowledge. Polly demonstrated joy and displayed a high level of self-esteem during the final curriculum review in her “reading” (she had not yet learned to read) of the I Feel Better With Music book. She proudly related understanding of curriculum concepts and experiences. Family involvement and dynamics affected levels of self-esteem. Learned responses within family structures disrupted or enhanced the learning process.

The children were aware of this self-regulating notion, and would use a ploy to disrupt work successfully when feeling self-confident. The children then displayed a sense of satisfaction and power. For example, Tommy’s mother asked him repeatedly to stop putting his finger up his nose. (Tommy’s mother explained to me that the family found this a
disturbing habit that Tommy had acquired since treatments began. The parents thought that the medication dried his sinuses and he relieved the sensation by applying pressure with his finger). At the initiation of a new activity in an educational segment, I observed that he put his finger in his nose and looked at his mother and sister for their response, receiving an escalated reaction from both. Tommy had disrupted the learning process gleefully, delighting in his own ability to provoke such reactions from family members.

Finally, self-esteem issues brought about varied but intense emotional responses. For instance, in the film, Polly’s father related a peer concept issue of hair-loss to his daughter, prompting a tearful outburst.

**Efficacy.**

Self-efficacy, I defined as the children’s ability to self-regulate emotional states, make good behavioral choices, and properly manipulate the tool kit and items. Most often, I observed the children display self-efficacy while presenting knowledge or displaying content mastery of skills, techniques or mastered use of provided products. High levels of self-efficacy and self-esteem overlapped, becoming apparent in positive emotional displays of personal satisfaction. Evident in the film, during the final curriculum review, I observed all three children demonstrate use of tool kit items with some level of self-efficiency and pride.

On the other hand, low levels of self-esteem overlapped with low self-efficacy, which could cause a withdrawal of engagement. Tommy provides an example. When first reviewing the CD player, Tommy would hesitate during his demonstration because he had not practiced enough to master manipulation of the product. His sister attempted to take over the handling of the product, give instructions, and answer my questions before Tommy had an opportunity to consider them. This was typical behavior that provoked Tommy to become moody or
exhibit displays of displeasure like flailing at the sister. On the other hand, if he knew how to manipulate the item, he moved it out of her reach and said forcefully, that he *knew* how to do it. Then he demonstrated that fact.

**How Film Data Helps Tells the Story**

To establish the context for film data results and findings, I begin with an introduction of the film data analysis process used to profile the three children studied. This is to inform about the analysis process before the triangulated case study profile information is introduced. As stated previously, I call these participants, Mary, Tommy and Polly.

The following pages reference figures and charts provided in Chapter III, including the coding strategy diagram, table for examples of coding content, and film data analysis flow chart. The following analysis breakdown for film data references the Diagram of Coding Strategy (Figure 7, p.62), which illustrates the organization of disease and treatment, coping skills, and behavior management information into educational segments. Example of Coding chart (Table 1, p. 63) from the previous chapter provides an example showing how I interpreted data for content coding and aligned information with educational segments. These segments demonstrate how coding was applied to analyze how each child responded to learning events at the core of the curriculum. In addition, I discerned levels of understanding in child learning by examining these events and interpreting how or if learning could be attributed to the curriculum. See the Film Data Analysis Flow chart (Figure 8, p.78) for an outline of the process of watching film data and breaking down critical educational issues to create a with-in case matrix for all three children, which follows. The next step was a cross-case analysis of educational segments, critical issues, emerging themes, trends, and patterns.
to guide the organization and creation of film folders for deeper analysis. This facilitated conclusions drawn about the curriculum and how it affected the participants.

The following master chart illustrates the organization of the coding process I used in Studiocode. This example shows the curriculum category breakdown used for the film data within a case study. Using this program I analyzed specific educational events across cases and applied coding for the emergent thematic educational elements concerning each child’s emotional responses and content mastery levels (CL). The chart also shows how I interpreted instructional interaction to code SLT and SCT levels.

Figure 12: Studiocode Master Film Data Chart
The legend chart in Table 8 presents critical educational events from the curriculum used in the Studiocode analysis matrices (See Figures 12-15, pp. 108-113), which follow. I watched film clips of events, coded information, took notes and read the individual case charts to determine how the information applied to learning during the implementation. This led to the cross-case analysis, also provided in a matrix (See Figure 15, p.114). I interpreted emotional responses in raw film data to understand the effectiveness of critical educational events for stress reduction or affective learning. The colors of the large rectangles are different to illuminate separate educational curriculum segments. The small colored rectangles within the educational segments indicate corresponding curriculum events in similar position and purpose (order of importance) differentiating between segments. Diamond shapes indicate curriculum segments and events, blue dots and yellow squares indicate the coding applications.

Table 8: Analysis Matrix Code Legend

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<th>Code</th>
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<td>SLT</td>
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<td>Educational Segments:</td>
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<td>CD</td>
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<td>DPK</td>
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<td>BK</td>
<td><em>I Feel Better With Music</em> Book</td>
<td>SC</td>
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<td>HBK</td>
<td><em>Hannah</em> Peer Concept Book</td>
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<td>MC</td>
<td>Mouth Care</td>
<td>H/L</td>
<td>Emotions and Feelings: Happy Time</td>
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The Analysis Matrix Code Legend identifies code information I used to organize learning events, allowing interpretations of results. The coded information in the following four matrices coincides with film clips that show core educational events and responses for each child. The legend also provides coded levels of (CL), (SLT) and (SCT). For deeper analysis, I clicked on a colored matrix square and I viewed the corresponding film clip for the segment. The colors in the matrix indicate corresponding curriculum events in position and purpose within segments, aiding differentiation among educational segments. The colored code tabs from the Studiocode Master Film Data Chart are clearly identified in Figure 11 (p. 104). These colors correspond with the colored squares in the matrices.

The frequency information shown here tracks the number of film clip sequences within an implementation of health content. The frequency information in the matrices is imprecise. Multiple clips can simply show an interruption in the time line that causes a break in the event. A break reflects as more than one film clip (frequency) to implement an educational segment. This can cause misinterpretation of frequency information. The reasons for multiple clips can include different strategies to ensure comprehension of basic concepts or breaks for amenities. However, high frequency levels that were particular to a case, or across cases provided information revealing concentrated areas of focus, or situations involving engagement that were out of the norm.
Columns and rows organize matrix information. The columns contain the child participant information, which is identified at the top of the first column to the extreme left. Following to the right, the next columns are for coded content level mastery levels (CL). The emergent educational element codes are in the middle columns of the matrix, and last are the Social Cognitive (SCT) and the Social Learning Theory (SLT) levels. The rows contain educational segment and coded information, which is provided in the Analysis Matrix Code Legend (Table 8, p.106).
Mary, Child 1.

The matrix shows Mary’s emotional responses, when applicable, her levels of content mastery, and applied theory. This matrix shows that Mary made little emotional response during the introductory sessions involving health education for well being. However, she engaged in activities. Her content mastery levels were high for the manipulation of products.
and demonstrations that she understood learning concepts. This matrix does not contain a low level of 4, which would indicate little comprehension of the associated educational concept. The child comprehended most learning event concepts easily. The emotional response category shows few emotional responses in curriculum events that relate to basic introductory information (from CD through MA). However, her emotional responses relating to the stress reducing elements of the curriculum were dense from SE down through MM. I related this information to stress-reducing educational experiences, which helped me to analyze learning in this area. In this case, concentrated frequency in the anger management (AM) row represents the focus on teaching stress-related behavior management. The multiple AM educational events strategy worked well for Mary, as the triangulated results corroborate learning of these concepts.

Tommy, Child 2.

The matrix for Tommy shows a different order in presenting curriculum events for coding. I introduced the concentration on mood management (MM) earlier. Due to individualized curriculum design, these education events vary in order of presentation. In this case, frequency is evident in the MM category due to the focus on behavior management in this content area. This matrix also provides frequency information about Tommy’s emotional responses that reveal multiple re-engagements for completion of educational events. In this case, many of Tommy’s coded emotional responses depicted disruption of an engagement process. For example, he would verbally refuse to participate, negotiate through parents to engage after a break, and sibling interference caused frequent response coding. If necessary, I demonstrated concepts multiple times using different engagement processes to promote learning. Tommy’s matrix indicates multiple emotional responses, but low levels in content
mastery and in social negotiation for learning (CL 3, 4; SLT 3, 4; SCT 3, 4). There were frequent responses and activities in the self-esteem (SE) row indicating the concentrated effort to bolster learning applications, attend to mastery of items supplied in the tool kit, and increase capacity to self-regulate.

![Combined Child 2 codes](image)

*Figure 14: Within-case Combined Code Matrix for Tommy, Child 2*
Polly, Child 3.

Figure 15: Within-case Combined Code Matrix for Polly, Child 3

Polly’s matrix clearly shows low levels in engagement, which I attributed to problems stemming from treatment issues. The matrix shows that regular engagement at the beginning of the implementation declined noticeably. This drop in engagement coincides with the appearance of treatment side effects shortly after the introductory section of implementation.
The matrix shows low levels (CL 3,4; SLT 3,4, SCT 3,4) of content mastery, comprehension of learning concepts, and social negotiation for learning. The emotional response category shows that there were emotional responses at the introductory stage of the curriculum. This contrasted with the other two children, who did not begin to show emotional responses until much later in the program, during the stress management segments.

In the reordering of curriculum information delivery for Polly, the acknowledgement of emotions and feelings for behavior management segment listed in the matrix legend (OK) took place at the beginning. Self-awareness of emotions and feelings were difficult concepts for a young child to learn. Polly’s need for stress management and the truncated implementation period indicated an early start. This information helps to explain the presence of early emotional responses in the chart in contrast to the other two children. The important relaxation events are light in the matrix. After Polly’s side effects began, it was difficult for her to engage for relaxation. Polly has concentration in rows dealing with management of feelings, relaxation, mood management and self-esteem.

*Cross-case analysis.*

A cross-case analysis might be considered of limited value with only three participants. However, the comparisons of child responses were important in this in this study. After separately analyzing each child, I conducted a cross-case analysis. I coded educational segments implemented in the curriculum all three children experienced during implementation. The following cross-analysis matrix contains combined codes for all three cases. The left column information displays Mary, Tommy, and Polly categories. The Studiocode Cross-analysis Matrix (Figure 15) provides the coded film data from the implementations of all the children.
The analysis of information from the matrix helped to answer the research questions. The emergent thematic educational elements of engagement, emotional response, empathic engagement, experience and expression analysis played a role. For example, the analysis of engagement responses links the instructional process to curriculum effect. This column contains no empty spaces and totals 87, the highest number of emotional responses in any
category. Although frequency contained inconsistencies in coding, this information indicated the importance of child engagement to the implementation of the curriculum.

Across cases, the engagement numbers were higher during the implementation of the stress-reducing elements of the curriculum. This indicates that re-engagement factors were necessary to implement the event. Reviewing stress-related events across cases, the information indicates a connection between re-engagement factors and learning expectations that fell short. The Mood Management (MM) category provides an example. Mary comprehended concepts in mood management quickly; the number 1 (highest level) in this case, indicates her ability to grasp these stress-reducing concepts. This is evident in the film data coding (SLT1, SCT1), corroborated by the content mastery levels (CL1), as well as supported by the final curriculum review and parent interview. However the other two children experienced breaks in implementation (Tommy 7 and Polly 4) and low levels of content mastery (a total of 7 in CL4 for Tommy and Polly). This indicated low levels in comprehension and corroborated findings of little evidence of learning in the area of stress-reduction techniques.

The blank squares indicate absence of information in that category. This could indicate previous knowledge in this area and we passed this section, I could not discern attainment of knowledge on any level during implementation, or could not analyze a response to assign a code. For example, there were no coded indicators in the empathic engagement category across cases until manners (MA), at that time the social element of empathy became evident. Previous to manners the introductory basics, nutritional, and cleanliness concepts did not evoke empathy. I found a similar situation in the expression
column. The introduction of arts expression stress-reducing strategies came later in the curriculum. In the matrix, the coding for these elements coincided with implementation.

Other information was evident in the film analysis data. Previous information from the within-case matrix for Mary shows a clip concentration in anger management (AM). Her segment consisted of 6 film clips showing this focus. The matrix also shows 6 (CL1) for high levels of content mastery. The parent attributed Mary’s learning of anger management concepts to the curriculum, so this information supports evidence of child learning. The other two children differed in individual needs, indicated by two film clips each. So each exhibited a low ability (CL2 and CL4) to comprehend these concepts.

The numbers of low and high levels in SLT coincided with low and high numbers of SCT, helping to bolster findings about teaching and learning in relation to overall curriculum affect on the children. Mary had the highest levels in both SLT and SCT consistently, but levels were low for the other two children. The final curriculum review and parental interview supported this information concerning curriculum effect. SLT and SCT levels indicated a direct connection between teaching and learning and overall comprehension, evident during curriculum implementation. This information suggested that a longer duration for implementation would improve levels for CL, SLT, and SCT. Cross-referencing CL, SLT and SCT levels contributed to knowledge about how the curriculum acted on the children individually.

Establishing Context: Descriptions of Mother Goose’s Children

To further establish the context for results and findings, I provide a description profiling the three children studied. I provide case study profiles to establish context and personal background information to make a connection between the children in the film and
my findings. These profiles include a personal history of cancer disease and treatment information and family background for Mary, Tommy and Polly.

*Mary is Full of Grace*

The first participant, Mary, was a five-year-old girl diagnosed with Wilms tumor, a rare kidney cancer that primarily affects children. She had surgery to remove the tumor with part of her kidney and a bone marrow transplant. She received chemotherapy and radiation treatments. At the time of curriculum implementation, she had recently received an intensive round of both chemo and radiation treatments and was a “rest period”. The rest period allows the body to recoup the immune system and strength before treatments resume. The child was immune compromised and had to wear a facemask consistently. The parent let us take the mask off most of the time during sessions to perceive and interpret emotional responses through facial reactions and gestures.

Both parents home school Mary rigorously. Since diagnosis, she no longer attended preschool with other children because of her compromised immune system. Mary had well-rounded basic knowledge about foundational education and disease-related health education issues. Intuitive in understanding and skilled in communication, she understood social and life issues on a level beyond her years. Mary related to adults in a mature fashion. She tired frequently during sessions, but remained attentive and engaged.

She was part of a family of four, along with her mother, father and younger sister. A close-knit group, the family lived about an hour from the hospital. The father works for income, the mother cares for the children. The cost of Mary’s illness has caused them financial hardship. Her attending parent during the implementation was her mother, who occasionally brought Mary’s sister, not yet two-years-old. The parents believed that Mary
took out her anger stemming from her disease and treatment situation on her little sister. The curriculum design prioritized stress reduction and anger issues in the area of behavior management.

The following information explains findings produced by film coding in the Studiocode within-case combined code matrix (Figure 12, p. 109) for Mary.

Mary consistently rated high responses in all five emergent categories, although she rated lower in emotional response. I attributed this to self-regulated or controlled responses and her emotional maturity. This also was indicative of her ability to engage fully and consistently. Of the three participants, she had the highest levels of engagement and content mastery. Mary self-motivated to do homework and brought it in for the final review. Her mother was unaware that Mary accomplished this until later. There, she also communicated clearly what she learned about anger and behavior management concepts. Mary never received a level 4 (low), application in the film data coding.

However, the matrix indicated an inability to engage in quiet time rest during dramatic play (DPR). Mary also received level 3 (low) applications in SLT three times. She received one during the mouth care segment. The segment was implemented a second time and she received higher levels. Although she responded better the second time, a similar avoidant behavior was evident at the start. In the parental interview, her mother said her daughter hated previous mouth care, which helps to explain this behavior.

Interviewer: Is she using music to help her accomplish smaller tasks or routines like mouth care?

Parent: Right now, she's not doing mouth care, but I think it would. Like...she had a bone marrow transplant in October. She hated the mouth care—hated it. And you have a CD and stuff you can use in the transplant unit. You put that on each time, especially for younger kids. Her age too, but even younger kids that it is really harder to explain to, will be awesome. I think the CDs are going to help a lot of different
kids. And in their situation to have music that is relevant to their situation, because there is very little of that out there” (Parent Interview: Quote: 139:142).

I: So at this point, you haven't had an opportunity during this period to use it, but you anticipate something positive.

P: Oh, definitely, definitely.

In the final review, Mary related incidents about her successful use of STOP and self-regulation related to little sister. She displayed ownership of the tool kit and demonstrated understanding of complex behavioral management concepts using the tool kit. In particular, she understood the use of music. She had intimate knowledge of music selections and their meanings. She gained knowledge of musical arrangement, familiarity with voice recognition, and consistently achieved a state of immersion when engaged with the music and music-related activities.

*Tommy is Still in the Race*

Tommy was a five-year-old boy with melanoma, a skin cancer that rarely affects young children but is now more commonly diagnosed. Melanoma is the most serious and deadly of skin cancers because it metastasizes into the body quickly. He received surgery, chemo, and radiation treatments. During the program implementation, he continued a shot regimen treatment at home. He was on light treatments and able to attend preschool at this time, an adjustment after four months of home schooling. Although knowledgeable in foundational education concepts, his health education concepts and communication skills were at an early stage. He was often difficult to engage during implementation sessions and seemed to tire easily.

He was youngest of his family of four, living with his mother, father, and nine-year-old sister. They lived about an hour from the cancer hospital. The father worked full time and the mother worked a flexible schedule around treatment. They struggled with working and
family time issues. Both parents met with me for the curriculum design and asked that the whole family attend implementation, as they believe that cancer affects the entire family. They wanted to focus sibling issues as a source of stress, as well as disease and treatment issues. They said they felt the two were interrelated. Both parents wanted to learn how to reinforce positive behaviors and stress management effects gained from the program. The curriculum design for Tommy focused on the high levels of stress he experienced before and during treatment sessions. Stress stemming from disease and treatment issues included fears concerning physical pain expectations before shot regimens and other invasive procedures. Another curriculum focus pertained to stress-related sibling issues.

The following information explains results shown in Tommy’s within-case combined code matrix (Figure 13, p. 111).

Tommy was often difficult to engage. Family dynamics played a role. Tommy’s parents often negotiated socially for him. During the first two sessions the sister modeled negative attitudes that seemed to affect Tommy’s engagement. She called him a “baby” off camera, as evidenced in field notes. The boy regularly responded to taunts by flailing at or hitting his sibling. Tommy’s behavior brought the gender issue to the forefront as well. He may have had some notions about what behaviors were acceptable for a young man of his stature. When he was engaged fully such notions might have retreated, returning occasionally. At the beginning of the implementation, evident on film, Tommy verbalized that he did not want to participate in the I Feel Better With Music program. He acted as though he did not want to participate at times too. He received high numbers in the engagement column due to the re-engagement factor.
Although Tommy seemed withdrawn at times, and I experienced difficulty engaging his attention during most of the implementation, the final curriculum review was a pleasant surprise. There was no family in attendance and Tommy was suddenly a different child. Animated and totally engaged, he communicated enthusiastically and consistently for the entire period, approximately thirty-five minutes.

Tommy demonstrated concepts of learning in areas related to health education and behavioral change. He related a story of how he self-regulated before and during administration of a flu shot, a stressful medical procedure for him. He told his story while using dramatic play demonstrating with the doctor’s kit. He also displayed emotional connections to friends, the music provided, and Little Bear. In addition, he displayed ownership of the tool kit and understanding of tool kit use concepts. He demonstrated and verbalized some understanding of self-regulation concepts which included use of the music and CD player as a way to change how you feel, as well as how to use the books, musical instruments, and hygiene and comfort items (hand sanitizer and blanket).

Polly is Fair of Face

Polly, a four-year-old girl was diagnosed with leukemia, a cancer of the blood. Her three-phase treatment began with induction therapy, which kills the leukemia cells in the blood and bone marrow. The next phase is consolidation therapy, administered as a spinal tap accompanied by radiation therapy. This therapy kills cells in the brain and spinal cord, sometimes requiring bone marrow transplants. Finally, a maintenance phase consists of chemotherapy. At curriculum implementation she was in phase one. The treatment she received on her first morning of the program included dexamethasone, a powerful steroid that affects the nervous system. Resulting patient discomfort includes physical tensions,
irritability, moodiness, behavioral changes (in this case, behaviors that are obsessive, common in steroid therapy), sleeplessness, and dizziness.

Her mother, father, child and two-year-old sister formed the family, which lived four and one half hours away. They made the trip regularly for treatments, as it was the closest cancer hospital available to them. They usually stayed at a local house available for families with cancer hardship. In consideration of challenges of distance and the family’s desire to participate, I aligned the program with one of the child’s treatment visits. In addition, I condensed the program into two consecutive days with the interview on the third day. The parents expressed interest in the research program in an attempt to fill a need they felt was great. They were willing to sacrifice time and work for their child to possibly gain some benefit for her quality of life. I made arrangements to accommodate their schedule.

Like Tommy’s parents, Polly’s parents wanted all family members to attend, because they also believed that cancer affects the whole family. Both parents wanted to participate because of their concern that treatment might cause severe upset, irritability, sleeplessness, acting out, and behavioral changes during the implementation. This change in Polly’s behavior frustrated and exhausted her parents. They wanted to mediate during curriculum implementation so Polly could receive the maximum possible benefit. They hoped that this program would alleviate some of the challenges they faced. The parents prepared to switch off during sessions to mediate with Polly and care for her sister separately, so as not to disrupt parent and child participation during important learning processes.

Polly, schooled at home by her mother, had foundational educational knowledge at the appropriate age level. The mother explained that emotional learning concepts were especially difficult to teach because of the effects of the cancer treatments. Both parents
expressed particular interest in a focus on self-esteem, self-efficacy, and self-regulatory issues. The mother preferred a focus on behavioral management and stress-reducing techniques instead of basic health education content because of Polly’s previous knowledge in that area. So we concentrated the curriculum content on self-regulatory behavior, mood management, and relaxation.

The following explains results produced by film coding in the within-case combined code matrix for Polly (Figure 14, p.112).

Polly’s matrix codes helped to explain the child’s learning experience as affected by cancer treatment issues. Although the child attended all educational segments, the engagement, SLT, SCT, and CL levels were low. Like her parent, I attributed these low levels to treatment issues, age, and condensing the one-week program into three days. Polly’s mother reports about treatment issues in the following interview excerpt (parent interview quote: 086:096),

Interviewer: So, again. Are you seeing the child use music to help her to think positively?

Parent: No.

Interviewer: Can you explain again why? And so again, you are basically saying that…

Parent: She is on the drug, the dexamethasone steroid, and she is very much in tune to what is going on with her body and to be able to… you know, as a child to be able to stop in and say, I need to make myself feel better. Instead she lays down and she tries to make herself feel better by laying down. The drug also makes her hungry a lot, so she tries to eat a lot. We tried to get her away from that a bit, so she is not overeating.

Interviewer I: And (does the child use music) to make her feel better physically?

Parent: Mom gestures to indicate No.

Polly did demonstrate positive responses for relaxation during the Sound Cradle (SC) experience. The matrix shows a positive affect for engagement in the SC row. I observed an
after affect, a changed state of being that I attributed to deep relaxation. She came out of the Sound Cradle experience ready to engage in a different experience or educational offering. She was in a different mode of response, which indicated that calming occurred.

In relation to peer concepts, I observed varied degrees of emotional response with Polly. She engaged with the introduction of Mother Goose’s large Itsy Bitsy Spider (peer concept puppet). Thus, she related well to the social learning concepts that the puppet was sick with cancer, and that Mother Goose tried to help the puppet use music to feel better. Although Polly did not demonstrate a particular affinity for Itsy Bitsy Spider, she seemed to display empathy. At the initial presentation for Polly’s child-sized Itsy Bitsy Spider puppet, an unexpected response occurred. She threw the puppet into her younger sister’s bag vehemently, wanting nothing to do with it. However, the next day she reconciled and related well to the Mother Goose version of Itsy Bitsy Spider and her own puppet. At first, I interpreted this behavior as possibly rejecting sickness she associated with Itsy Bitsy. However, there is no way to confirm or deny the reasons for the peer concept disassociation in this case. In addition, I gave credit to the parents for reinforcing learning. They took the time to correct the problem by reinforcing positive empathy concepts outside of the curriculum. The next morning after Polly rested, they read the book emphasizing the introduction of Itsy Bitsy Spider and how the spider puppet and Polly had similar problems. They reintroduced the small Itsy Bitsy Spider and played with Polly, helping her to choose music selections and ways to help make the puppet feel better using the music as taught in the two previous sessions. Polly came into the second afternoon of implementation with a changed attitude toward her Itsy Bitsy Spider puppet. However, she had a stronger affinity with Little Bear, the stuffed animal.
The final curriculum review took place with Polly and her father. Her mother was in the interview with the independent interviewer. Although it was initially difficult to engage Polly, her father directed and redirected Polly’s focus until she engaged. (Polly executed various ploys to disrupt with her mother but not her father. I attributed this to behavioral habits within the family dynamic.)

Polly remained engaged for the final curriculum review, lasting approximately thirty-five minutes for the. Both the father and I expressed amazement at the engagement level and her demonstration of learned material. Unexpectedly and spontaneously, the four-year-old decided to “read” the book to us. She explained curriculum concepts she understood on each page. She related understanding of simple concepts that were appropriate for her age. However, the mother and father, although working hard to reinforce concepts in the short period of time, believed that Polly had learned little of the material. The father expressed surprise in discovering Polly’s demonstration of her knowledge and the self-confidence in presentation of knowledge. She even remembered lyrics to songs and connected health to learning concepts. Polly displayed ownership of the tool kit. She demonstrated limited understanding of the tool kit and its use for behavioral change.

Cross Analysis

Cross-analysis of cases helped answer questions about the effectiveness of the curriculum. I found a direct connection between engagement and understanding of stress-management techniques. The Studiocode cross-analysis matrix (Figure 15, p. 114) shows a link between high levels of engagement, CL, SLT and SCT and learning in areas of stress management for Mary. The other two children had problems engaging and show low levels of SLT, which appear important for learning. Low levels for these Tommy and Polly in the
SCT coding help me to explain their limited comprehension of curriculum concepts, supported by parent interviews. On the other hand, the final curriculum reviews on film data indicated more learning took place than parents thought at the time of the interview.

Cancer-specific treatment issues influenced responses to stress-reducing elements for Polly, and her understanding of learning concepts in general. Although Polly’s implementation duration was shorter, she was also dealing with physical side effects of treatment that affected the nervous system, causing her severe discomfort. Although the other two children experienced some side effects from treatment as well, the severity of treatment for Polly affected her ability to engage, as reflected in the engagement and experience categories.

Emotional maturity and the ability to self-regulate indicated an effect on a child’s ability to engage to specific stress-reducing elements. For example, the matrix shows consistent appropriate positive responses that indicated engagement and learning in areas of stress-reduction for Mary. However, the other two children displayed inappropriate responses that disrupted learning in the same events. For examples, an emotional response of crying because they don’t want to participate, or disrupting the learning process by refusing to participate. I attributed this behavior partially to Polly’s younger age, stage of development and treatment issues. Reasons are unknown for Tommy’s inability to engage and manage emotional responses. Tommy’s social negotiations through his parents indicated early stages of emotional development. However, in the final review, he was socially able on his own. His inability to self-regulate emotions during sibling interaction indicated early stages of affective learning. For Tommy, I observed a relationship between his low levels coded in CL for ability to self-regulate during the teaching of stress-reducing experiences and his low
levels in engagement. However, Tommy’s behavior in the final review suggests learning capabilities beyond what he displayed during the implementation.

As a relaxation experience, the Sound Cradle had consistent and dramatic affect, evident in the film. In the matrix, the Sound Cradle (SC) row representing the event shows the levels of affect on the children. Mary did well understanding the relaxation concepts, as reflected by high CL, SLT and SCT levels. Although the Sound Cradle (SC) experience relaxed the other two children, they did not grasp accompanying concepts of relaxation. Afterwards, they showed little connection to the musical selections offered on the CD’s reflecting the experience, as Mary did. However, the Sound Cradle did make an impact on all three children reflected in discussion about the experience.

Mood management (MM) using music and music-related activities were concepts most readily understood by all children. The row for MM shows varied responses for all children. However, the SCT and SLT levels were generally higher during MM events for Tommy and Polly than other curriculum events for stress-management. This indicates a focus in that area and suggests that the children began to engage and understand some of these concepts. A favorite concept was to “Put Your Troubles in Your Bubbles” with the song and accompanying bubbles. Mary understood this concept of feeling better using this coping strategy. However, the other two children seemed simply to enjoy the song and experience.

The short duration of the implementation phase was generally responsible for little reinforcement or practice of coping skill strategies and behavior techniques by the parents. Parent fluency played a role. Some were more diligent, aware of educational concepts and the use of the tool kit. Due to treatment issues, I recommend longer implementation for complex emotional learning. Considerations for refinement of the curriculum should include
specific stages and weekly timeline to reinforce learning at home. Although all three children understood concepts about disease and treatment, parents attributed it to previous knowledge. I gathered evidence that Mary learned coping skills and behavioral management techniques, but little evidence of knowledge demonstrated by Tommy and Polly. Although Tommy and Polly experienced successful stress-reduction during curriculum events, I saw little evidence or demonstration of stress-reducing knowledge for purposes of self-regulation.

Social learning dynamics across cases contributed to and affected child learning in this complex learning environment. These dynamics had an effect, whether positive or negative. According to Bandura (1973, 1997), social interaction provides modeling, reinforcement, and vicarious opportunities for learning both good and bad health habits. Family dynamics played a large role in behavioral change. Associations with the hospital environment included disease and treatment, doctors and nurses, and other staff. The program took place at the cancer hospital and implementation coincided with treatment. Although this association might have held fears concerning illness or treatments, this vantage point directed identification of individual and immediate emotional needs. The environment affected children’s learning positively and negatively.

I note the significance of reciprocal relationships—child centered—that provided contextual information. These relationships included family and friend dynamics, doctors and nurses, outside learning influences, and finally, the *I Feel Better With Music* program. Here I provide a figure to show the learning dynamics in the children’s environment as it related to the arts-based curriculum.
Summary

From my perspective as a teacher/artist/researcher, arts-based educational research provided an opportunity for me to rethink creative ways to share questions and findings for

I Feel Better With Music
Positive & Negative Reinforcement
Social Learning and Cognitive Theory
(Bandura)

Figure 17: Learning Environment for Behavioral Change
the practical purposes of education. Film-based educational research provided a perfect way for me to investigate the curriculum through film-analysis techniques and present the results to the audience in a visual art form. This triangulated analysis of the three case study produced a large amount of data. Due to the concentration on film-based educational research techniques and rendering the final results in film, I summarize the triangulated data findings.

Curriculum Affect on Children Participants

Initially, the effectiveness of the curriculum was at issue due to the abbreviated five-session duration. However, the implementations varied from one-and-a-half weeks, dropping to three days. This was compounded by issues raised in the parent reports, including out-of-norm schedules, inclement weather, parking problems, and the many demands of caring for an ill child.

In spite of adverse conditions for learning during the study, the curriculum affected the children, which was evident in their emotional responses in areas of stress-reduction. The analysis of educational elements in areas of engagement, empathic engagement, experience, emotional response, and expression consistently evidenced some positive curriculum affect on children in the area of affective learning. The children appeared to have a basic conceptual understanding of the importance of the curriculum and accompanying tool kit in areas of behavior management. There was evidence of some positive curriculum affect in the area of stress-reducing coping skills and relaxation techniques during implementation. Across the three cases, only Mary demonstrated evidence of learning self-efficacy for anger and behavior management techniques. Her mother reported newly acquired stress-reducing behaviors and relaxed experiences attributed directly to the curriculum. I attributed the three children’s use of hygiene and comfort items from the tool kit to self-regulation of comfort.
Furthermore, all children demonstrated an awareness of music as a tool to self-regulate behavior. Music appeared to play a central role in learning.

The parent interviews revealed that certain other content learning experiences might not be effective in stress-reduction. Results show little effect from the disease and treatment section of health education. This I attributed partly to the children’s prior knowledge, as reported by parents. The duration or phase of cancer treatment also affected learning, as evident in the parent interview selections in the film representation. Parents reported little evidence of impact for self-management of physical pain or discomfort. Polly’s mother reported that she felt the curriculum taught her as a parent how to teach her child and reinforce learning concepts from the curriculum. Overall positive curriculum effect was evidenced in a relationship to music affect during implementation.

*Music Affect*

Overall, the curriculum consistently produced a positive affect on the children. This was evident in their emotional responses during implementation of educational events while the children engaged with music and music-related activity. In particular, the stress-reducing Sound Cradle experience produced the most consistent source across cases for positive curriculum affect on the participants. Evidence of other consistent positive affects on the children included mood and behavior management techniques using music and activities the individuals preferred, such as the bubble song and activity.

The main curriculum goal of self-regulation and self-efficacy using music to reduce stress was only partially realized, as results indicated some success in the area of affective learning. Results show a link in overall positive curriculum effect to music affect on the children during implementation. Polly’s mother reported that to reinforce Polly’s knowledge,
she would use the curriculum concepts and tool kit as a reinforcement tool. She said the family would explore the use of music further.

All three children demonstrated they understood the concept that the tool kit and items were to use to help them feel better. Polly’s mother reported that Polly did not fully comprehend that one should use the tool kit to feel better, but she was learning. Regardless of their grasp of the concept, all children took ownership of the tool kit and items. All families reported that the CD player was easy to operate, supporting the demonstrated mastery in the operation of the music equipment. However one family reported a problem with CDs skipping after some use. All families praised the high quality of music, music content and selections. However, one parent said that the auditory quality needed improvement in terms of clearly hearing lyrics.

Teaching the children how and when to use rational processes and music for self-control or self-regulation of behaviors, including consciously changing mood and venting emotion worked successfully only for Mary. Tommy and Polly demonstrated little evidence to suggest they had learned these *I Feel Better With Music* concepts. All parents reported the music was a valuable reinforcement tool for learning health education and behavioral concepts. Parents reported that certain music like the *I Feel Better With Music* Classic-all CD provided consistent stress-relieving results.

*Educational Theatre as a Learning Medium*

There was little direct reference in the interviews to suggest that educational theatre features of the curriculum had an overall curricular effect. Some parents referred to educational theatre techniques as a curricular feature in the interviews, some did not. For example, when asked in the interview about use of dramatic play with the doctor’s kit outside
of the curriculum, Polly’s mother said, “Like what? So, basically just playing (Interview Quote, Atlas.ti, 191).” Parents did not highlight educational theatre techniques as a learning feature. There was little use of “dramatic play” reported for practice of coping skills or behavior management techniques outside of the curriculum. During the curriculum implementation, Polly’s mother and father did say they used “play” outside of the curriculum to help Polly to empathize with the Itsy Bitsy Spider puppet and to reinforce using music selections to feel better. In addition, Tommy’s parents reported that they believed their son’s imaginary play with the doctor kit was therapeutic.

Educational theatre played a role in successfully modeling educational concepts across cases. Family dynamics sometimes indicated social learning and cognitive processes using educational theatre techniques were more successful when a positive role model within the family structure modeled educational concepts. This depended on the child’s degree of comfort in social negotiations. Mother Goose successfully showed children how to use the music equipment and musical selections; however, parents or siblings proved just as effective. Findings indicate that a character or new experiences might intimidate young children, requiring a level of comfort provided by a family dynamic.

Mary’s mother referred to the influence of the Mother Goose character as having a positive curriculum effect on her daughter’s learning of behavior management techniques. For example, Mary’s mother said she taught Mary a stress-reducing technique much like the STOP anger management breathing technique, yet Mary never used it. The mother said Mother Goose made the concept more fun. The mother said, Mary demonstrated mastery of the stress-reduction concepts while dealing with her little sister and attributed Mary’s success to the influence of Mother Goose. As something the child would say, the mother said in the
interview, “Before, I think ‘it was just mom trying to get me to do something right now, and I don’t really wanna take a deep breath. And now, I think this is something that is fun’ (Interview Quote, Atlas.ti, 272).” Children’s educational theatre or character influence seemed minimal for Tommy and Polly.

Educational theatre techniques established concepts and skills during the curriculum implementation, contributing to positive curriculum effect. As presented, there was little evidence of specific learning attributed to educational theatre aspects as curriculum effect, although child engagement was generally at a high level during dramatic play. Children’s educational theatre and theatre techniques made instruction about emotional states and behavioral management fun, parents said.

The results of the analysis indicate that some experiences for relaxation, coping skills, and behavior management provided change in emotional states during educational events, establishing positive curriculum affect on children during implementation. There was evidence of some affective learning in the content areas of stress-reduction and behavior management attributed to curriculum effect. Overall positive curriculum effect and affective learning, link to the use of educational theatre, music and music-assisted preschool learning techniques. Curriculum affect on participants during implementation linked consistently to curriculum effect. Positive curriculum affect on children link with curriculum effectiveness consistently in an interrelationship with positive music affect on participants.

Chapter IV presented the results of the triangulated analysis and three case profiles. Chapter V provides in-depth discussion and closing comments.
Overview of the Study

This research examined curriculum effect on critically ill preschoolers diagnosed with cancer. The curriculum content included disease and treatment information, coping skills, and behavior management techniques. In particular the investigation focused on how children with cancer responded to specific stress-reducing elements of the arts-based curriculum and accompanying tool kit. I examined the ways that the curriculum and tool kit materials influenced learning across a three-case study using an arts-based methodology. Film, parental
interviews, and field notes served to triangulate data. Using the perspective of teacher/artist/researcher to analyze, I extrapolated emergent educational themes from watching and interpreting the child-centered emotional responses produced during sessions. I addressed participant responses to stress, caused primarily by challenges of cancer disease and treatment. This investigation yielded findings so that I may answer the research questions.

I organize this discussion by the research questions that guided this study. I provide the findings from the investigation to help answer all aspects of the central question, “What is the arts-based curriculum affect on critically ill preschool-aged children with cancer?” I examined one aspect concerning curriculum effect on children’s understanding of the disease and treatment information, coping skills, and behavior management techniques. I wanted to understand how the educational events affected children during implementation and how that might correlate to the children’s affective learning for emotional development. An important aspect of the curriculum design was to provide the children with stress-reducing events, allowing the children to experience changed emotional and physical states. My curiosity prompted the examination focus on how children diagnosed with cancer respond to specific stress-reducing elements of the arts-based curriculum and tool kit. I wanted to know if or how the curriculum and tool kit acted on, or produced a change in these children.

The analysis results, rendered in a visual arts film format, emphasized the children’s responses and personal experiences during and after the educational phenomena. The resulting documentary style film and textual portion of the dissertation contain my analysis and findings. I invite viewers of the film to interpret these results and draw their own
conclusions. The text containing intensive results and findings is also available for the curious.

This written portion of the dissertation explains the research study from my personal perspective of teacher/artist/researcher and student, supporting the film. I used traditional and emergent arts-based notions in dissertation writing styles to present findings, juxtaposing style expectations. My point of view as a student represents a changing world, as I am in between old and new educational ideologies regarding research methodologies. Balancing between dominant and emerging ideas about methods, I was positioned to push the boundaries of educational research. The written dissertation structure delineates an “in between” space in traditional qualitative research and arts-based educational research methodologies. The differences, such as ideas about textual verses artistic representation, are at opposite ends of the research methodology spectrum. The expectations of traditional educational student research as a written dissertation, overrode the artistic representation. I experienced the push and pulls concerning representation and writing styles. This included writing using perspectives and voice, third person verses subjectively, in first person. I discuss these aspects of research expectations to initiate awareness, conversation, and collaboration to bridge the gap in understanding between traditional and newly accepted concepts in educational research.

This chapter contains discussion about the emergent elements of the analysis and results in relation to the questions that guided this research. I also address improvement and further research of the arts-based curriculum program model, in the hope that a refined curriculum may have a greater positive impact on student understanding and teaching artist performance. In conclusion, I address the limitations and implications of the study findings
and significance for children diagnosed with cancer, their parents, health professionals, and for education in general. I also provide recommendations for further research and closing comments.

Discussion of Emergent Educational Themes and Child Response

Primary Question: What is the arts-based curriculum affect on critically ill preschool-aged children diagnosed with cancer?

The study evaluated differentiated arts-based curriculum effect in the outcomes for children with cancer. The research data provided insight about how the curriculum acted on the children during implementation. Specific data emerged as educational elements germane to my focus on emotional responses to analyze teaching and learning strategies and using children’s educational theatre as a learning medium. I focused on the children’s emotional responses to gauge comprehension of health promoting behaviors in the character of Mother Goose.

Educational theatre provided opportunities to model wanted behaviors. This study shows that the arts-based curriculum investigation imparts valuable information regardless of success or failure. This is evident in the film. The study shows that the curriculum impacted the children’s knowledge base in different ways and to varying degrees. I observed child participants in the curriculum exhibit both success and frustration. Analysis of emotional responses during the curriculum events revealed that participant levels of understanding, content mastery, and complex emotional learning related directly to their level of engagement in the learning experiences.

Results show a link between positive curriculum affect and the use of music. Music and music-related preschool activities were central to learning stress-reducing techniques and
mood and behavior management. Music and activity served as tools to self-regulate behavior. Music successfully served as a critical learning tool for general content, although the overall goals of the curriculum fell short. However, these findings contained valuable information about curriculum implementation and how the children’s phases of cancer and treatment affected content learning. Although the stress-reducing strategy using educational theatre and music was only partially realized, the information is helpful for curriculum refinement.

Emergent educational elements were engagement, emotional responses, empathic engagement, experience, expression, and the elements of empowerment, exploration, self-esteem and self-efficacy. These related directly to the children’s affective reactions. Affective reactions are emotional responses, or “affect displays,” an observable display of emotion. Awareness of these displays was key to teaching affective learning, but I found it especially important while teaching self-regulated behavioral change and stress-reduction techniques. Cancer disease and treatment may produce stress and stress-related behavior. Stress is directly attributed to disease effects of illness and the toxic effects from treatments like chemotherapy and radiation (Duenwald & Grady, 2003; Saxe et al., 2003). Examples included some children’s inability to cope emotionally with stressful sibling situations when they felt ill or overwhelmed. In addition, side effects from treatment resulted in physical stress, impacting the children’s ability to cope with normal social interaction. Curriculum relaxation techniques targeted disease-related stress. My findings show that curriculum effect relating to stress-reduction varied among children. The factors influencing curriculum efficacy were disease and treatment effect, the degree of affective development, social maturity of the child and family dynamics.
Affective learning and emotional development were difficult for the children due partially to disease and treatment, but also they were in the early stages of social and emotional development. These children need more time to process complex knowledge about self-regulation of feelings and emotions, indicating that repetition of content and skill practice is important for these young children in early development. Therefore, to offer maximum opportunities to learn about coping and behavior management techniques, it is imperative to lengthen the implementation period.

Success may also depend on the teacher’s ability to quickly understand the complexity of emotional responses based on phase of disease and treatment, the child’s level of development, and varying social and physical conditions. Family dynamics plays a role as parents and siblings vary in degree of learning support and reinforcement of both positive and negative behavioral learning concepts. The parents in my study tended to be overwhelmed with work, family, and worry about their sick child. Due to these and the specific challenges of cancer, it is inappropriate to expect the parents to do much of the curriculum work at home. There may be a way to create further visual teaching materials to take home to support the hands-on approach to learning, perhaps visuals on a Digital Video Disc (DVD) to reinforce curriculum events. For example, in the DVD, Mother Goose could help remind a child about quiet time by putting down the blanket, modeling the breathing exercises, and playing the imagery song.

I categorized emotional responses and coded according to these emergent educational elements based on the children’s emotional responses as engagement, emotional responses, empathic engagement, experience, expression, and educational elements. The following
discussion supports and elaborates on the results presented in the film and examples reported in earlier chapters.

*Engagement.*

There was a direct correlation between the children’s level of engagement and their understanding of disease and treatment information, coping skills, and behavior management techniques. The three participants observed in the film clips demonstrated that deep engagement improved learning health education content for wellbeing. Evidence of this association with engagement included a child’s successful reproduction of modeled coping skills and behavior techniques. Children were consistently engaged when I used music-assisted learning techniques. All children demonstrated that they had learned some target concepts, content information, coping skills and techniques using music. One child in particular was able to self-regulate emotionally using music and behavior techniques.

My findings support that learning skills, concepts of self-efficacy, and stages of development were important factors in learning self-regulation of emotional states. Social and emotional maturity and the ability to self-regulate seemed to affect emotional responses linking to engagement levels. Social interaction within the child’s learning environment was key in curriculum implementation. Bandura (1994) argues that cognitive factors involve skills, practice, self-efficacy, and stage of development. This information was evident in the analysis of film clips and supported in the Studiocode code charts provided in chapter IV. For example, film clips revealed that Mary’s engagement seemed to promote learning and ability to self-regulate, while the other two children had difficulties with engagement and learned less. The foundational roots of many studies concentrate on the interaction between student, behavior and environment (Bandura, 1977, 1986). The curriculum guidelines highlight
motivation, attention, retention and production (Bandura, 1973), which encompass important aspects of learning and developmental theory.

I fully expected that music-assisted learning strategies would consistently and positively influence engagement with critical content. My expectations that music would improve engagement opportunities fell short. I found that the children’s personal preferences in music and activities did sometimes play a role in effective engagement. I showed children how to use arts immersion with music and activities to promote healthy expression of emotions and feelings like anger, and as a way to relax. Engagement to promote learning occasionally relied more heavily on the music-assisted learning activity rather than the musical selections. Polly says, “…I hate singing…” in the film to avoid engagement with music, the music failed to engage the child. Scarf dancing, on the other hand, elicited participation. This demonstrates a link between engagement and positive emotional response, suggesting a direct relationship to the music-assisted activity instead of the music.

The learning capabilities for health promotion of all three children seemed linked their ability to engage deeply during a curriculum event. Healthy behaviors are the result of thinking about your ability to make a change, then deciding what you will do. Bandura (2004a, 2004b) argues that behaviors for health promotion stem from self-constructed beliefs about capabilities mediated through cognitions. Child development levels and originating sources for symptoms of stress affected learning capabilities and seemed related to the preschoolers’ conceptions of illness or health (Kalish, 1996). Emotional responses used to analyze engagement were particularly informative when the children displayed sensitivity related to cancer. Curriculum events containing disease or treatment-related issues that were sources of the children’s stress, manifested in reactions showing heightened emotional
responses. The children either responded by heightened engagement or a refusal to engage fully.

Disease and the effects of treatment affected the children’s emotional responses to stress-reducing elements and learning in general. Examples from the three cases presented in the film follow. Mary indicated that her understanding of “feel better” was to “forget about cancer.” Tommy paid close attention to content about injections, indicating that his fear initiated full and consistent engagement. Polly’s treatment side effects presented difficulties in consistent engagement. Results show that disease and treatment issues affect learning in different ways. I found the children’s emotional responses and ability to engage linked to curriculum effect. These results revealed valuable information about how the curriculum affected children with cancer.

Mary made a deep connection with the music provided in the curriculum. Her mother said she believed, that the child connected to the music and curriculum because they were relevant to her situation. These factors possibly helped to produce high levels of emotional response and engagement. More importantly, the mother stated that the music and curriculum gave Mary a sense of normalcy and shared experience that cancer happens to other children. The parental interview revealed important learning for Mary in areas of self-regulation using music and mastery of behavior techniques attributed to the program. Polly, unable to engage consistently, as shown in the film data and subsequent analysis, demonstrated little evidence of learning. The parent interview supports this assessment and includes parental beliefs that her inability to engage was directly caused by disease and treatment side effects. Engagement considerations also included ages and stages of development.
Results indicated that positive curriculum effect on the children associated directly to affective interaction during the teaching and learning process. Affective interaction linked to affective learning. The findings connected engagement to emotional responses in curriculum effect. Additionally, positive curriculum affects during educational events resulted from the relationship between deep engagement and emotional response for each child, regardless of the results for learning. In particular, this is evident when experiential events bring about changes in emotional states. Bandura (1973, 1977, 1986) suggests the interaction between the student’s behavior and contextual learning environment directs the student’s motivation, attention, retention, and production in learning. I found these principles applied in regards to engagement across cases in the curriculum areas of disease and treatment, stress-reduction and self-regulation for behavioral change. In particular, the varied levels of engagement linking to child motivation were key in examining emotional response.

*Emotional response.*

This category emerged partially due to consistent unexpected emotional responses seemingly unrelated to curriculum events, but connected to engagement issues. I investigated and analyzed the children’s emotional responses in all emergent educational element categories. My focus on emotional responses helped answer the research questions about curriculum affect, but brought child motivation into question, as I was encountering unexpected emotional responses. This directed a deeper examination in this area to determine if stress-related issues might be the cause; I had to get to the root of unexpected emotional responses. I also needed to understand what might produce these responses to better discern a child’s needs and learning preferences for curriculum and instruction differentiation.
Ongoing teacher assessment of learner needs necessitated differentiated instruction (Tomlinson & Allan, 2000). As a teacher, it was important for me to discover a child’s learning preferences to help me teach and better influence the child’s learning opportunities. The learning profiles provided information about how the child best processed educational content. This helped determine how to motivate and engage the child. According to Tomlinson and Allan, research in the area of differentiation suggests that sensitivity to learning profiles provides benefits for instruction. They highlight educational research by Lisa Delpit (as cited in Tomlinson & Allan, 2000), bringing attention to individual differences in communication style, children’s responses to status, the role of feelings and need for emotional closeness in learning, all important to this study.

Curriculum focus on stress-reduction and self-regulation of mood and behavior highlighted emotions and affective learning. Emotional responses became important to gauge learning and development of self-regulation skills while teaching. They also held insights about children’s self-concepts and capabilities that were important during self-esteem or self-efficacy building events. I consistently focused on the children’s emotional responses to gauge affective learning during teaching. This guided teaching strategies during the implementation.

Affective learning and the different levels of child development appeared to have a strong connection. This finding, early on in the implementation process, led to further study of emotional responses displays. The data provided visual evidence in analysis that curriculum events using music and educational theatre techniques can elicit strong emotional responses. The film representation shows evidence of change in emotional states, promoting learning of stress-reducing skills. Educational theatre techniques, like dramatic play, were
invaluable teaching tools to evoke responses for examination. I wanted to understand the root of the emotional responses, especially when they were enigmatic.

Polly’s initial response to the presentation of her own Itsy Bitsy Spider puppet is still an enigma. I felt taken by surprise by the powerful negative emotional response Polly displayed when she received the child’s version for dramatic activity. What provoked the child to throw the puppet vehemently into her sister’s belongings? Further investigation and conferring with the parent failed to reveal the cause of the response. The mother’s interpretation was that the child’s refusal to associate with her puppet stemmed from the child feeling forced to relate to the puppet’s illness and Polly was unable to cope with her own illness at that time. Polly’s emotional reaction might have been to the peer concept puppet’s illness, compounded by mood-altering treatment side effects. These speculations exemplify connections among illness and treatment, affective learning, and levels of child development. My findings suggest that the child, at this early stage of affective development, could not control her emotions during inner conflict. However, adults experience similar lack of control from time to time.

Nichols (1956) argues the essence of drama is conflict, educational theatre provided opportunities to resolve conflict through an imaginative process. My journey and experiences in leading the children into dramatic scenarios became a personal discovery about walking a fine line, learning to tread lightly, lest I step into areas that required drama therapy expertise. I discovered that early stages of child development made it more difficult to convey concepts like self-regulation of mood and emotions, particularly in language and social development. Self-notions affected learning and self-efficacy. Early development in conjunction with conceptions about illness and personal capabilities affected empathic engagement as well as
emotional responses when children explored powerful feelings like sadness or anger. I provided dramatic play opportunities to learn self-regulation using empathy, controlled emotional release, learning these conceptual ideas through story, and development of creative thinking and problem-solving skills for skill development (Neelands, 2004; Way, 1967).

Although there is little evidence of direct connections between the uses of educational theatre techniques as a learning medium and attributed content learning, the techniques served to teach complex understanding about emotions and awareness of feelings. As a learning medium, I believe these techniques deepened the participants’ understanding by eliciting empathy and emotional reactions. Dramatic techniques enhanced learning experiences with creative thinking and problem solving opportunities. Dramatic play seemed to help children feel empathy and a sense of responsibility in caring for other characters. This in turn motivated the children to learn musical selections and activities to help the characters feel better. The children displayed empathy for characters and deep engagement when involved in dramatic play with the doctor kit. They seemed to understand the importance of doctors, nurses, and medical tools. Interestingly, the children’s overall favorite dramatic play across the cases involved the doctor kit provided in the tool kit. The children used dramatic play with this item consistently and at length. According to the parents, the children had previous knowledge about the medical kit components such as the stethoscope and how to use it. However, parents said that dramatic play with the medical kit proved engaging, soothing, and had therapeutic results.

Dramatic play with bubbles and the accompanying song elicited a consistent positive emotional response in the content area of stress reduction. Mary learned and understood the coping strategy and the stress-reducing concept. Tommy and Polly appeared to memorize the
words provided but did not understand stress-reduction concepts at the time of analysis. I believe the children would grasp these concepts fully, given more time. All children enjoyed the experience and it consistently changed their emotional states, or moods.

This finding supports the use of music and dramatic play as learning tools that were significant for mood stimulation. Emotional responses seemed to derive from moods at times. I detected a brighter mood when a child engaged fully with music and dramatic play. During these instructional periods I consistently found evidence of affective learning. Therefore, this finding contributes to literature that music and dramatic play is significant as a learning tool for affective learning (Cornett, 2003). In this study, they acted on the children as stress-reducers during implementation, as they provided consistent sources for positive emotional responses and changes in emotional states. When a child engaged fully in music, music activity, or dramatic play, there were consistent observable reductions in stress.

I also found evidence of the children acquiring greater language skills during engagement with music and dramatic activities. Communication skills improved at these times at well. This is evident in the film as the children repeat pronunciation of newly introduced words, or when asked to communicate in new ways in dramatic play scenarios. Examples include “STOP” anger management techniques, which consisted of new ways to assess and communicate feelings for behavioral change, good manners, and conveying pain levels to doctors or nurses. This suggests that music-assisted preschool learning and dramatic play contributes to the development of social learning in the area of language development, in line with previous studies (Catterall, 2002b; Cornett, 2003; Koelsch, 2005).
**Empathic Engagement.**

Here, the term “empathic engagement” describes fostering empathy to develop a rapport with peer concept characters. I used music and dramatic play to elicit empathy and stir emotional responses during peer concept events. In addition, the children often exhibited evidence of some affective qualities and affective learning during dramatic play, indicating the development of empathy. This teaching concept usually engaged the children, providing the cues I needed to develop individual strategies for teaching stress reducing and relaxation techniques. Peer concepts can promote learning for social and emotional factors like compassion, affection, appreciation, and manners. The children developed an affinity with a character with whom the child may choose to engage in an emotional understanding.

My focus for peer concept was to initiate a relationship with a puppet with cancer (Itsy Bitsy Spider). I thought that this would create a deep emotional understanding of another’s feelings or problems, drawing the children in to content areas of disease and treatment issues. The puppet served to introduce similar disease and treatment issues and provide stress-reduction techniques. It served to model integrative medical strategies like breathing exercises, guided imagery, meditation, mindfulness, and listening to music to reduce stress. However, this strategy was only partially realized.

I planned on using the puppet in dramatic play techniques to model relaxation techniques and provide experiential events for the children. If the child were deeply engaged, this proved to be successful. The most important element of this process was to make sure the children had a truthful and initially engaging positive relationship with Mother Goose’s large version of the Itsy Bitsy Spider puppet. Using the puppet’s stress issues, I could provide tailored relaxation experiences. Once a child made the emotional connection fully, if Itsy
Bitsy Spider became angry, the child had an opportunity to relate to or transfer the anger on a simple emotional level. The next step using the puppet was to demonstrate relaxation and behavior management choices to introduce concepts of self-regulation. Although there was evidence of some learning, there was no way to consistently link it directly to music and dramatic play. This was due to other environmental and social learning factors involved.

Findings helping discern curriculum affect indicated that the three children demonstrated affective learning and some learning in areas of stress-reduction and behavior management. The children identified with either the character of Little Bear, representing a healthy child, or Itsy Bitsy Spider, representing a child with cancer. Once the child made a connection with a character, music engagement became more effective. For example, either character served to teach anger management techniques, I easily transferred the anger issues to a child’s preferred character. The child who preferred Little Bear, for example, would then empathize with that character’s feelings of anger. I used dramatic play to model the puppet using healthy ways to vent anger. This ploy generally engaged the children for presentation of appropriate anger music selections and experiences with accompanying activities.

Whether the children engaged empathically with peer concept characters seemed reflected in their emotional responses and learning in this area. The child’s level of emotional maturity and social development appeared to be a significant factor. Mary had a relationship with all provided characters, although she related strongly to Itsy Bitsy Spider. Tommy and Polly formed the strongest relationship with Little Bear. This suggests that peer concepts used in dramatic play along with deep empathic engagement promoted some outcomes of positive self-identity, self-efficacy and behavioral change. I found that levels of child engagement coincided with learning content in curriculum areas of coping skills and
behavior management. In addition, the fact that curriculum affect was significant for Mary, but not for Tommy and Polly reiterates previous research that human factors of individuality, uniqueness, and social and emotional development make it difficult to examine the effects of educational theater as a learning medium for curriculum affect (Barone, 1997, 2001; Catterall, 2002b; Way, 1967).

**Experience.**

An emergent situated curriculum affect in teaching and learning that I call “experience” helps answer questions about curriculum affect during implementation. I designed the curriculum as experiential because children must experience the mind-body sensations associated with relaxation in order to understand how to successfully reproduce a relaxed state. Analysis of the three children’s emotional responses during teaching and learning experiences showed a range of changed emotional states.

Emotional responses connected to experience varied and at times were brief. However, a physical stimulation for learning most often produced an emotional shift in behavior, even if briefly. The curriculum consisted largely of preschool music-assisted learning strategies using arts-based experiences, but these techniques were only partially successful. However, the relaxation experiences, like the Sound Cradle, were key to teaching stress-reducing elements. This experience was consistently powerful, allowing the children to feel relaxation deeply and to promoting understanding of the change in physical and emotional states of being.

As shown in the film, the children’s most impressive and consistent positive affective response was to the physical massage produced by sound vibrations of the Sound Cradle instrument. I observed all three children relax deeply. This supported literature that refers to
the music body-mind connection as a deeply emotional and sensory learning experience (Langer, 1957; St. John, 2004). This experience provided positive results across cases, which implies that the Sound Cradle may be a valuable tool for providing relaxation to critically ill children. These are the first known research results produced using the Sound Cradle with children. I recommend more research in this area. Results provided evidence of a positive curriculum affect in the area of stress-reduction. Results for other relaxation experiences varied. Breathing exercises had some success across-the-board. However, the effectiveness of guided imagery, meditation, mindfulness, and listening to music depended on the child’s ability to engage fully and emotionally.

The experience involving music with bubble activities also produced positive results as a stress-reducing technique. I observed the children with consistent joyful emotional responses to bubble events. Engagement with the bubbles consistently changed moody behaviors and emotional states. The children also responded well experiencing the music and activities to upbeat songs and the relaxing classical music provided. The energizing music and activities were sure to engage, as long as the children were not overtired or irritable. These results show how experiences act on children as a stress-reducing affect. Only one out of three children demonstrated that she learned stress-reduction concepts, substantiated by parent reports. My expectations that children would learn stress-reduction concepts fell short. However, this information about how these experiences elicited change in emotional states is important, whether learning was realized or not.

Supporting reviewed literature, experience was important in human learning and enhanced successful implementation of strategies, given factors like engagement and stages of development. Other experiences provided in the curriculum produced mixed results in
levels of engagement and emotional response. These responses appeared to be contingent on personal preference for music or activity, whether whimsical or gender specific. I noted these in analysis generally as music-making and dancing activities with the children and their families.

Expression.

I analyzed emotional expressions as artistic, verbal, gestured, or made known by an emotional attitude shift by the children. These expressions varied in intensity and display. Opportunities for learning were provided using expressive arts to relieve stress. Specifically, the curriculum provided arts learning through activities in music, theatre, and dance. The goal was to teach healthy ways to express anger, frustration, or other negative or positive feelings. Expression in emotional response, substantiated in the triangulated data helped me understand how the curriculum operates on the child with cancer. Expression exhibited by the children revealed that children respond emotionally to disease and treatment factors related to their own specific cancer issues. These deeply embedded emotional reactions are key to how children express reactions to curriculum experiences and events.

Results show that emotional responses and engagement were both deeply embodied in a child’s instinctive expression of how they are feeling. I taught arts expression as a physical and mentally engaging process of music-making, music-related activities, and dancing. Then I encouraged, mediated, and evoked emotional responses so that the children could experience arts expression as a coping strategy. I tried to help the children make the connection between uncontrolled feelings and controlling feelings with arts expression. These concepts were difficult for the children to grasp.
I observed that emotional responses to instruction were often ingrained and repetitive, such as a learned habit. Mood responses seemed regulated by an intuitive response to the learning experience, environment, physical states, or social interaction. Identifying emotional expression and engagement was part of the analysis process, results varied during expressive arts learning experiences. Examination reveals that there is no consistent or direct link to curriculum effect in expressive arts learning for stress-reduction. However, during arts experiences the children expressed emotions through arts (such as dance), which visibly affected and changed their emotional states across cases. These experiences are evident in the film. The children understood little about concepts of managing emotions or behavior through artistic expression.

All three children demonstrated an intuitive understanding of emotional expression, but there was little evidence of learning expression as a coping strategy. Although the children’s emotional responses and levels of engagement were powerful, these findings show insufficient evidence for positive curriculum affect in learning stress-reducing strategies using arts expression. However, the children apparently experienced and expressed deep enjoyment and stress release when immersed in the experience or an expressive moment.

Further patterns of emotional response in expression across the three cases show children in the throes of the moment responding vigorously to social interactions. These intense emotional expressions generally revealed helpful information about children’s sources of stress. These expressions appeared tied to forceful feelings stemming from disease and treatment issues or from self-concept. When children expressed positive or negative attitudes or moods during curriculum events (especially during social interaction involving family dynamics), it seemed likely due to spontaneous or ingrained habits of expression.
The emotional responses analyzed in the expression category support findings that arts expression experiences were important in curriculum affect on the children as instructional tools for human development. To help answer the central question of how the curriculum affects critically ill preschool children with cancer, expression was not linked to learning. The children did not understand how to use arts expression as a stress reducing coping strategy, which provides some interesting indications for further examination. Information from this category is valuable for further study and refinement of the arts-based curriculum for preschoolers with cancer.

*Educational Elements*

In addition to the educational elements of engagement, emotional response, empathic engagement, experience and expression, the goals of the curriculum analysis included assessment of learning self-regulation of emotions and behavior. In addition, the analysis of self-esteem and self-efficacy building were integral to understanding how the curriculum and tool kit operated on the children. These latter educational elements emerged during analysis serving to address concepts of self-regulation, self-efficacy, self-motivation, and self-confidence.

The major goal in the curriculum design was to empower children and parents with tools, skills, and techniques for self-regulation in order to cope better with disease and treatment issues of cancer. Self-concept is a vital component in accomplishing behavioral change. Self-concept includes self-beliefs about capabilities, status within a family environment, and conceptions about illness. Empowerment entails a self-concept change.

Consistent self-critical responses emerged during the implementation across cases. This became a consideration for analysis of overall curriculum affect on critically ill children.
Cross-analysis revealed certain emerging elements that related to self-efficacy, self-confidence, and the ability to self-regulate. These included self-empowerment capabilities and confidence to explore learning concepts. I began to interpret responses as self-resistant to change, or interpreting emotions expressed in tears stemming from low levels of self-efficacy as produced by low self-confidence. Interpreting emotional responses using educational terms seemed appropriate, as they also apply to child development.

During analysis, I took into consideration stages of development and age. Family dynamics emerged as an important factor in connection with these elements in the triangulated cross-analysis data. Analysis of the final curriculum reviews included in the film revealed that the connection between family dynamics and self-concept was important, highlighting these emergent educational elements because they affected learning. I categorized four educational elements of empowerment, exploration, self-esteem, and self-efficacy collectively because they overlapped and usually emerged as brief, but consistent events while investigating curriculum affect on children’s learning.

My notion of empowerment, one of four emergent elements in this category, refers to a process that increases the child’s capacity to make confident choices for self-desired outcomes. At times, all of the children displayed varied emotional responses and degree of engagement stemming from a sense of empowerment and the ability to self-regulate. There was little evidence of curriculum affect for learning empowerment or self-regulation. However, as shown in the film, the children displayed this ability throughout the curriculum implementation. Important to this study, was the finding that all three children displayed a sense of empowerment through ownership of the tool kit and contents. Throughout the implementation, analysis revealed that children developed an understanding of the purpose of
the tool kit and how to use most of the activity and comfort items provided. In addition, each child personalized the tool kit by adding items they felt were important to include. The children are shown proudly presenting these added items in the film during the final curriculum review. The children all demonstrated some knowledge about the items or use of the tool kit with confidence and ownership.

Exploration, another emergent element, was an essential tool in learning for inquiry and understanding. Exploration was quite different from experience in that the child initiates it during a learning experience. The children’s degree of emotional responses varied, but all of the children engaged fully and committed at one point or another to explore educational items, issues, art forms, their relationship to Mother Goose and the characters, and artistic expression. Interestingly, family dynamics resonated during the children’s exploration of newly forming social interactions with Mother Goose and the teacher/artist/researcher. Patterns of behavior with family were apparent, as all of the children explored personal boundaries, teaching and learning interaction, and social behaviors in the educational environment set up in the hospital. Participants demonstrated levels of personal preference in which emotional responses and engagement highlighted the level of interest that a particular child might display. This was particularly apparent during exploration of curriculum items or events. The film provides evidence of exploration during educational events, which involve self-esteem, notions of self-efficacy and engagement.

Self-esteem issues emerged to play a large role in student engagement, especially when family dynamics were involved. Powerful habitual emotional responses within family structures can disrupt or enhance the learning process. The children intuited this self-regulating notion when using ploys to disrupt or initiate interaction. These ploys worked
regularly with parents and siblings to disrupt instruction. Two of the children were especially comfortable within the contexts of family dynamics. I observed these social relationships as having behavioral implications. There seemed to be resistance to try new activities on occasion, these children looked regularly for family responses before motivating to engage.

Due to immune system issues children were often isolated for long periods. This helps to explain why some children showed early stages of social and emotional development and disengagement from implementation practices. I was challenged to creatively overcome family dynamics that influenced levels of emotional response and engagement. Self-esteem issues brought about varied but intense emotional responses. High esteem levels emanated from children who displayed mastery of content or content items, and demonstrated full engagement when presenting knowledge with confidence or when fully engaged in dramatic play or arts expression. Low levels of self-esteem overlapping with low confidence in abilities could cause a complete withdrawal of student engagement. High levels of self-esteem and self-efficacy overlapped in positive emotional displays of personal satisfaction, ownership of knowledge, demonstrations of content mastery, or mastered use of provided products.

Self-efficacy, the last important emergent educational element, is a product of self-initiated motivation to learn. For the most part, children acquire self-efficacy and self-concept as a direct result of family interaction. Young children rarely question their status in the family. If the family views the child as self-efficient, the child acquires self-confidence in this area and believes this is true. However, if the family views the child as incapable of accomplishing tasks without help, the child may view this as a perceived fact. Self-regulation of behavior is contingent upon self-efficacy and self-concept. Self-esteem and self-efficacy
overlapped consistently as positive indicators of learning. Motivation to learn seemed to link with high degrees of these four educational elements and resistance to learning seemed to coincide with low degrees.

These educational elements helped answer the questions about arts-based curriculum affect on critically ill preschool aged children diagnosed with cancer. Emergent findings helped tell my story about how the curriculum affected the children during the implementation and how this may inform arts-based curriculum and instruction. In addition, the triangulated analysis helped to explain curriculum effect. This information connects curriculum implementation strategies with effective learning. More importantly, this study shares information about how the critically ill children were affected by arts-based experiences for learning than what they learned or how much they learned. The film leaves findings open to viewer interpretation as well as providing my own observations. This presents opportunities for dialogue about this interdisciplinary study.

Personal Perspectives of Teacher/Artist/Researcher

My inspiration came from A/r/tography, an arts-based educational research method, which attends to conditions (relational inquiry) and concepts (renderings) used to inquire into educational phenomena (Irwin & Springgay, 2007). I used inquiry and presented findings in a similar way—from the personal perspective of a teaching theatre artist, educational researcher, and curriculum and instruction specialist to answer research questions. In addition, I briefly addressed my perspective as a student to explain the juxtapositions in dissertation organization and writing styles from both traditional and emergent educational research approaches. The result might seem disruptive for the reader, but the method was intentional. This application in a textual approach revealed my perspective from a delineated
“in between” space reflecting the push and pull of traditional research ideologies and new theoretical approaches to research.

My personal perspective informs this section, an appropriate choice considering the inherent intimacy in film editing analysis I used to find results. Transforming those results into concepts and renderings for artful inquiry into educational phenomena (Irwin & Springgay, 2007), I rendered them using the visual art form of film. I analyzed and processed the study film clips using the personal angles of my teaching artist and researcher identities. The resulting documentary style film not only provided results, but also allows the viewer intimate access to raw data for personal interpretation. Irwin and Springgay explain that such renderings offer new possibilities for engagement and understanding. This is an active space between the renderings of the teacher/artist/researcher and the audience’s process of meaning-making, which establishes personal connections to the subject matter and facilitates interpretations of what they see.

The central research question is: What is the arts-based curriculum affect on critically ill preschool-aged children diagnosed with childhood cancer? The study explored the central premise that there is a beneficial trifold relationship between educating preschool children diagnosed with cancer in disease and treatment information, providing music and arts-based activities for development of coping skills and behavior management, and using educational theatre as an arts-based educational tool. Here, I draw from my personal perspective to address the research findings.

What became apparent in this story was that the findings offer much to benefit future arts-based curriculum and instructional endeavors for children with cancer. Perhaps this study will facilitate future curriculum refinement and implementation ideas for I Feel Better
With Music. By telling this story, I hope to bring to the forefront the unique significance of the arts-based curriculum impact on seriously ill children. Before I present the significance of these findings and explain how the arts-based curriculum was able to benefit the three children and their parents, I reveal further details about the insight I gained in order to better answer the specific aspects of the primary question.

How does the art-based curriculum and accompanying tool kit affect children’s understanding of the disease and treatment information, coping skills, and behavior management techniques?

As noted, in order to fully describe the analysis of complex teaching and learning concepts presented in the arts-based curriculum, I identified educational segments, emphasized emergent educational elements, and highlighted how the children responded emotionally by using those elements. Education through the arts is a complex process reflecting life and learning complexities. Now from an intimate and complex standpoint, I use the information gleaned from this process to help explain how the curriculum and tool kit worked to accomplish curriculum goals.

Catterall (2002a; 2002b) argues that art transfers important information and becomes a catalyst for transforming understanding of self, others, and the world. Further, he argues that art is about thinking and emotions interacting in a combination of social and inner conversations and silence (Catterall, 2005). These ideas defined my aesthetic and drove my inner impulses in developing the curriculum for preschoolers with cancer. I filled the curriculum to the brim with arts, arts, and more arts. Catterall (2005) also argues that demonstrations of affective learning reflect self-efficacy, motivation, engagement, and interest in learning—I was motivated to look in these areas. Catterall notes cognitive effects
include enhanced problem-solving skills, creativity, social learning, communication, and processing complex information. Eisner (2002) lists ten lessons that the arts teach children and the unique contributions to learning that the arts make. Perfect, I think—a confluence of processes turning and burning at an incredible rate—and I can use all of this to develop, implement, research, and explain what I discover.

I embarked on this multifaceted journey as teaching theatre artist, thespian, musician, and curriculum and instruction student. I researched information about cancer and treatment, medical trauma and posttraumatic stress disorder, stress and anxiety, stress-reduction, health education, theatre and music-assisted preschool learning, teaching and learning, child development, social learning and social cognitive theory, and more. I developed an educational theatre-based curriculum, music, published a children’s picture storybook, identified and collected appropriate music and items to include, and built a complete tool kit to hold all of the activity and comfort items. There were a lot of them in the tool kit—CD player, three CDs of music, headphones, books, booklets, puppets, teddy bear, blanket, kaleidoscope, medical kit, modeling clay, lip balm, hand sanitizer, musical instruments, secret pouches—and away I went as Mother Goose. The implementation of the curriculum was a social affair; I am a social creature, this suited me well.

Suddenly, alone, immersed in my work and workspace, in the process of finding results, I found a contiguous personal perspective that included the essence of my humanity. Me, distilled. I found my self in between the actual experience of my implementation and observing my teaching theatre artist self work in film images. I became both actor and director, watching and editing my self in between image and actuality. I found myself back and forth in this in between space—my self and myself. I observed on screen how my music
affected children’s learning. I watched myself reading my book to the children. I dealt with my emotions in this vital “in between” space, and considered my responsibilities as well as all those facets of my personality that related to the work. I found this in between space informative, yet unsettling, insightful, reflective, ecstatic and enactive; enhancing meanings and meaning-making. Happily, I chose an arts-based educational methodology. Just as happily, I found myself wondering, in a state of wonder, questioning. I remember thinking, is this what arts-based educational research refers to as “living inquiry”? Here now, is what this inquiry revealed.

Admittedly, the findings fell short of the expectations I held about how the arts-based curriculum and tool kit would affect children’s understanding of the disease and treatment information. The children were well into treatment and already had a good understanding of what was happening to them. They also knew a lot more about cancer disease and treatment than you would ever want them to know as young children. However, I thought of Kalish (1996), who discusses preschooler’s conceptions of illness as often distorted and in early stages of development. He argues for the importance of positive thinking, clarification of ideas about disease in non-frightening terms, and understanding the emotions that arise.

The children were in early stages of emotional and social development, emphasizing the importance of making difficult concepts about their disease and treatment clear for their understanding. Parents and oncology professionals did the best they could to help them comprehend concepts about cancer. Ironically, most adults diagnosed with cancer also do not understand the nature of cancer treatment—issues that arise from the courses of action they face, or why cancer happened to them. However, adults can read for information and socialize with other people. They have a mature social and emotional understanding, and are
able to empathize while reading about a victim’s cancer issues or socializing with people who have cancer. Young children do not have this capacity.

I was here to help; yet results showed little evidence of learning in the area of disease and treatment. Previous knowledge in this area demonstrated by children or found in discussions with children and parents indicated that my overall expectations for this study would not be met fully. I took short, thorough, and determined strides in my research to see what learning I could find in this area of disease and treatment. I found a little learning here and there. For example, Polly and her mother had no previous knowledge of the Face Pain Management Scale (FPMS) (Wong & Baker, 1988). Analysis showed a small but important bit of learning, but my attempts to provide a good understanding of disease and treatment information to ease stress did not bear fruit.

The literature indicates that young children are deeply affected by medical trauma stemming from cancer, which can produce severe stress-related behavior (Duenwald & Grady, 2003; Saxe et al., 2003). Studies about programs that help children cope with cancer and chronic illness (Melnyk et al., 1997, 2004) intrigued me further. How did they do it? These studies only suggested less stressful outcomes for young children armed with knowledge, and called for more research in this area.

But I want to help. I want desperately to make a difference in these children’s lives. I want for the implementation of this curriculum to positively affect the children by reducing the stress they face. So I resolved to concentrate on nutrition and hygiene for well being to address disease and treatment in health content. As stated, there was little evidence of learning attributed to the arts-based curriculum in the area of disease and treatment, indicating the results did not meet my expectations in curriculum effectiveness for this area.
However, on a positive note, parent report suggested that curriculum implementation at initial diagnosis might have greater impact.

So, I focused on coping and behavior management skills directly related to resolving stress from disease and treatment issues. I found evidence of learning in this area with my first student, hinting that my expectations may be met. Mary breezed through coping skills. She whizzed through behavior management techniques, and parent report confirmed comprehensive learning in these areas. My teacher/artist/researcher heart pounded and yearned to continue. I sang and danced through student life, which is normally the way I do things, but then came the second study. Tommy, Child 2.

I…perhaps recollected…as is wont in teacher/artist/researchers, that each precious child is unique. I remembered quickly and in great detail, that each child has particular strengths, stages of development, personal sets of challenges, and learning background. My expectations became more realistic and down to earth. Mary, Tommy, and Polly challenged me to overcome their hardships with disease and treatment, to lighten the weight they carried that made it harder to teach them. Tenaciously, I worked to read emotional responses and find ways to engage during the implementation in order to affect them in some positive way, wherever I could within the curriculum. It was important to me. My own motivations were evolving toward something just beyond the results of the curriculum, although I worked toward that end too. Empathic engagement took on multiple meanings for me. Engagement, emotional response, empathic engagement, experience, expression, and educational elements, such as empowerment, exploration, esteem, efficacy— they all applied to me as well. I began to realize I was to study and analyze my self through this process, even as I glimpsed the all-encompassing purpose and importance of this study for the children, parents, health
professionals, artists working on the project, professors, administrators, and me. The study was about the children.

Though I found that the disease and treatment section of the curriculum had little effect on the children, results showed health education in the section promoting well being taught children some nutrition and hygiene information. They also learned fun ways to accomplish well being. Regrettably, there was little evidence of impact in management of physical pain or discomfort (which can cause stress). However, the song for cancer-related mouth care proved effective in motivating children to brush, even though mouth care was not an issue in these three cases during implementation. Better still, this concept prompted recommendations by parents for other songs to accomplish tasks dealing with disease and treatment issues, like flushing port tubes, a dreaded necessity for the children. I need to consider this for the future. I may also entertain revising the mouth care song. Although the children love the Mouth Care Song with its slow repetition and fun lyrics, the parents generally detest it for its slow repetition and lyrics. However, this curriculum and music was all about the children.

The coping skills and behavior management techniques garnered some success. The first child understood the concepts, practiced them, and demonstrated deep learning. The other two children learned less, and I wondered about the outcome and all the reasons why. Some were obvious and easily discerned, while some were not. I made notations during implementation to indicate key areas for further consideration in analysis. I remember marking red flags on sections of my teacher/artist/researcher field notes at the end of certain sessions—I color code everything because I organize and understand my thoughts visually—and I felt emotional responses when attending to the red-flagged information. They tugged at
me, and I felt an instant aversion to them as if they were actually physical tugs, evoking frustration and sadness and responsibility. However, when I observed learning in areas of coping skills and behavior management, I felt a sense of well being, joy, and pride, forgetting momentarily about those little red devils. I wanted the children to experience the positive—of joy and well being. I observed the children responding with a wide range of similar emotional responses to mine throughout the study, a similarity I liken to the human factor. How do children who have been diagnosed with cancer respond to specific stress-reducing elements of the arts-based curriculum and tool kit?

The curriculum included disease and treatment information to reduce stress, unrealized in this study. This concept may succeed if implemented at initial diagnosis of cancer. The specific stress-reducing curriculum elements consisted of interaction with experiences and activities provided. Music and integrative mind-body concepts for relaxation included breathing techniques, guided imagery, meditation, the Sound Cradle experience, music and activities for mood management and actively listening to music. Music and many of the activity items were included in the tool kit. Here, now I attend to stress-reducing curriculum affects on children diagnosed with cancer. I examined children’s responses to help answer this question: How do children who have been diagnosed with cancer respond to specific stress-reducing elements of the arts-based curriculum and tool kit?

I Feel Better With Music.

Overall, positive curriculum affects linked strongly to music affect. Music helped to relax and to energize the children during the curriculum implementation. When deeply engaged, the concept of using music and stress reducing techniques acted on the children successfully. This was dependent largely on a child’s ability to engage. The children
demonstrated some understanding that certain music selections promoted healthy behaviors. The curriculum and tool kit worked together. The tool kit provided important interactive articles, including the CD player, the music CDs, the book to reinforce learning concepts, and related comfort and music activity items. I used the tool kit to teach self-regulation concepts to the children using the music on the CDs.

I compiled the set of CDs. To me, the music is incredible. I never tire of listening to it, even the mouth care song (the parents’ critiques aside!). The children loved the music and the parents mentioned its high quality. I found a definite music affect that I report as an emotional element unto itself. I always have a strong emotional response to music. I respond immediately to it, physically and emotionally, even when introduced in a subtle fashion. Music is how I relax, energize, wallow, change my mood, and work through my every day. I thought I would share this love of music and show the children how I (as Mother Goose) use it to make me feel better. I change my mood with music, as do so many music advocates, perfect for teaching mood management.

Bearing out my expectations, the music did work as a tool to teach coping skills and behavior management techniques. However, the anticipated evidence of learning self-regulation concepts using music fell short. In spite of this, I am happy to report a positive music affect during curriculum implementation consistently when the children were able to engage. This music affect related to emergent educational elements, and furthermore, music had a positive affect for consistent and effective child engagement. The findings also linked engagement and emotional response in producing a consistently positive music affect.

Music played a critically successful role in child learning. I found that music sound and related activities connected to learning stress-reducing techniques, mood and behavior
management. I also observed some evidence of music used successfully as a tool to self-regulate behavior. Mary learned to feel better with music fully. However, the other two children did not demonstrate true understanding of the feeling better with music concepts, even though they could repeat memorized versions of the learning concepts. Minimal understanding of self-regulation concepts did not classify as learning. This information was valuable for restructuring and refining the next arts-based curriculum.

Stages of emotional maturity and ability to self-regulate affective responses seemed to affect engagement. Engagement was important to experience stress-reducing elements of the curriculum for learning. However, I believe with a longer implementation this information might be less relevant than it appeared at this juncture. The breathing exercises implemented regularly in all phases of stress-reducing exercises worked well during the implementation. Parent reports indicated that their children demonstrated the concepts outside of the teaching sessions and attributed this to the curriculum. A particular parent report says newly demonstrated breathing exercise techniques possibly came from the curriculum, but there was no way to validate that. I report success with guided imagery, meditation, and listening to music with the first child only. These stress-reducing exercises and experiences I gave the children provided me with penetrating insight and perceptive understanding through caring and touch. There are elements of trust that must be in place for a student to allow interaction using touch to teach.

My most successful deeply relaxing and stress-reducing curriculum event across cases involved the Sound Cradle. This instrument has power. I experienced my most profound revelations in sensitivity through these interactions with the children. My experiences with the implementation of the Sound Cradle events were particularly profound
utilizing touch in many ways that enfold human experience. These teaching events for relaxation became experiences embodied in rich sensory awareness and connection to the child’s psyche and emotional state, a dynamic state for teaching and learning. This space between child and teacher/artist/researcher became a sensitive area of observable vitality and energy. I, as Mother Goose, shared that special space with the child…moving…rocking…. Dancing my fingers along the strings. More than once, I remember thinking and feeling aesthetically full, and all at once from multi-perspectives came, “All the children in the world are mine.”

Silences were filled with absence of sound. Gentle waves of sound. Silence. Then again, sound. Relaxation reverberated in the space. There was remarkable energy and vitality in relaxation and silences too. These were moments of serenity for me, or harmony with the children and their families…moments when the curriculum became almost…alive…or sleeping…contentedly full of pleasure.

These results served to answer one aspect of the primary research question about how children responded to stress-reducing techniques provided. Results provided preliminary evidence that children might learn and benefit from stress-reducing techniques. Findings indicate that children diagnosed with cancer respond to specific stress-reducing elements of the arts-based curriculum and tool kit in unique ways. These responses depended largely on cancer disease and treatment issues affecting the child’s ability to engage in learning. Stages of social and emotional development and family dynamics also played a role. These factors helped explain the children’s understanding of the curriculum and tool kit.

The tool kit yielded a consistent and positive affect across cases. All children demonstrated ownership and confidence in the use of all items included. However, only one
child demonstrated understanding of how to use the tool kit to feel better, cope, change moods, or manage behavior. The other two children had an intuitive understanding of how to use the tool kit (backpack and items), but did not demonstrate knowledge of its conceptual function.

Summary

What is the arts-based curriculum affect on critically ill preschool-aged children diagnosed with childhood cancer? This study explored the central premise positing a beneficial relationship in conjunction with educating preschool-age children diagnosed with cancer in disease and treatment information, providing music and arts-based activities to develop coping skills and improve behavior management, and using educational theatre as an arts-based educational tool. The following summarizes all information provided, drawing from results and findings from the triangulated analysis and different lenses from personal perspectives to draw conclusions.

The curriculum goal was to teach self-regulation of stress-reducing techniques to the children, and the study provided early evidence that the curriculum provided opportunities for learning in these areas, as well as behavior management. Across the three case studies there was evidence of positive curriculum affect on the child participants’ changed emotional states. The positive curriculum affect linked to the music used as a tool for teaching self-regulation of coping skills and behaviors. In addition, this music affect linked to effective stress-reducing music-assisted curriculum experiences.

Curriculum effect linked to positive showings in emotional responses and levels of engagement to curriculum events and some experiences using music. Some positive curriculum effect connected to music and preschool learning activities indicating music as a
valid learning tool. All three children showed they learned varying coping skills, behavior management, and stress-reduction techniques using music and music-assisted preschool learning activities. However, this learning was limited. I found little evidence of learning in other areas of health curriculum content.

Despite these results, the children received some benefit from the implementation of the arts-based curriculum and tool kit. Each child varied in levels of understanding stress-reducing techniques, coping skills and behavior management techniques by the end of the implementation. They benefited from a relaxation experience from the Sound Cradle. Music played a powerful role in learning as well. Parents reported benefits in learning stress-reducing techniques from the curriculum to reinforce at home. Two of the children verbalized and demonstrated some understanding that the tool kit and items were provided to teach self-regulation in order to help them feel better. The parent of one child reported that the child did not fully comprehend that the tool kit was for self-regulation or to feel better, but was in the process of learning. Overall, parents indicated that the curriculum provided a fun way to learn concepts of using music to feel better and to reduce stress. In addition, the parents said the use of educational theatre as a learning medium, in particular the character concept of children’s educational theatre, provided enjoyment. Therefore, there was evidence that critically ill preschool children diagnosed with cancer were able to learn some stress-reducing techniques that might prove beneficial.

Limitations of the study

Major limitation considerations in this study included the number of case studies and the educational variables. The primary limitation was that it focused only on three cases. Moreover, ambiguities in the inability to control educational variables to effectively
understand what and how the children learned were weaknesses inherent within the research design and human learning. There was no way to effectively control outside variables, like the cancer affect and family dynamics influencing the teaching and learning experience. Age group and gender differences, different stages of social and emotional maturity, and individual abilities to negotiate social interaction also affected study results.

However, this information could be considered strengths in the study, by providing insights for differentiation. Varied durations of the implementation affected accounts of learning for children who might require longer periods of time or more segments to reinforce learning opportunities. The direct results and consequences of these limitations included my inability to confirm sources for evidence of learning, side effects from the disease and treatment, variance in parental fluency and family participation, and reinforcement oversight for content concepts outside of curriculum implementation. There was little time for deep reflection for child learning or for the parents to discern affect or learning. Ultimately, family dynamics exert a powerful learning influence and differ greatly for each child.

This study lacked diversity. There was no evidence of culturally diverse reactions to program, music or related activity items. Children recommended for this study depended upon interest expressed by their parents and approval from doctors. The doctors required approval to safeguard the children and their families from further hardship. The children had to be in a phase of cancer treatment that would allow them to participate without consequence. There were no children or families participating in this study that had no music interest or did not like music. There were no culturally related aversions to music, some cultures and religions ban or limit music, or certain types of music, or expressive arts such as dancing.
The effectiveness of the curriculum may have been compromised by the short duration of implementation. Ideally, the program would include the one-hour sessions once a week for eight to ten weeks, allowing plenty of time for reinforcement and practice of coping skills and behavior techniques at home. Hardships faced by the families attributed to cancer disease and treatments, length of travel time to the hospital, or inclement weather issues, created further limitations in implementation issues. These limitations forced adaptation, producing a different period of time for each child’s implementation and inconsistent lengths of time for overall duration of each case study. The implementation periods ranged from nearly two weeks to three days.

Issues with the site provided by the hospital, an open area with little space in the radiology oncology waiting room also caused problems. In this hospital, unused space was at a premium, but I happily accepted the area because it was off to the side and had a beautiful fountain, flowers, plants, and other amenities. However, interruptions were plentiful: background noise, intercom announcements, people walking through, and recognition of doctors and staff by children. On some occasions, I attained permission to use the space over the weekend to implement the relaxation and stress-reducing techniques that required no interruptions and quiet. Despite the adverse conditions for teaching and learning, the children generally did well in the space. When fully engaged, the children rarely broke concentration due to outside influences. Child and family awareness of the cameras and videographers added to limitation issues with the teaching and learning space. Evident in the film, the children acknowledge the camera and videographers behind the camera, a limitation inherent in candid film study strategies.
There was no evidence of how the children would have interacted with any character other than Mother Goose. Although the children did well in interaction, the first two children understood that the teaching artist was also the character of Mother Goose. Both children chose to relate to me as Mother Goose. The third child believed that Mother Goose was a real person. There was no way to determine how this information influenced the learning process or how another person or character would affect the curriculum implementation.

A final limitation stems from the personal perspectives of the teacher/artist/researcher for potential bias in this study. Although the responsibilities of every researcher include careful interpretation of results, and I was careful to cover all perspectives I provided in this dissertation, the potential for unintentional bias exists.

Further research

The study offers much information for further development of the arts-based curriculum for preschoolers with cancer. Study findings revealed information about educational theatre as a learning medium and the effectiveness of music-assisted preschool learning strategies for preschoolers. The research provided innovative ideas about education outside of the K-12 educational arena in curriculum and instruction. As an interdisciplinary study, it provides information for teaching artists, educational practitioners, and health professionals in pediatric oncology or integrative medicine working with young children. The field of arts-based educational research is still emerging. Worth noting, is that the film-based methodology used in this study enhanced my research experience. I endorse this methodology for inquiry in educational research and for practical educational purposes in general.
I consider this initial study as a springboard for curriculum refinement and further research for an arts-based curriculum for children with cancer. Implications for this purpose in teaching and learning include reconsiderations of the children’s educational theatre aspect using a character, more diversity in music selections, diversity in age and gender, and more detail on cancer specific issues and duration of implementation. Although this study provided deep qualitative information and thick description, the next study requires a substantial number of children for implementation and multicultural diversity.

I identified and highlighted important aspects of teaching and learning through the arts. In particular, I highlighted information about the use of educational theatre as a learning medium and the effectiveness of music-assisted preschool learning. In addition, information about teaching and learning from the teaching artist perspective added to teaching studies and literature. I recommend further research in these fields.

The information gained about the arts-based teaching and learning strategies to promote learning for preschoolers diagnosed with cancer in the areas of stress-reduction and self-regulation for behavior management is important for refinement of the curriculum. Although results were less than expected for curriculum affect in all these areas, enough positive evidence exists to recommend more research. This study offers information that may be useful to parents, oncologists and a variety of health professionals.

As a curriculum and instructional student, and as a teaching artist specializing in educational theatre, I was able to develop, implement, teach, and research the work, developing personal views from each of those perspectives. The accessibility of expert technology for academic professionals keeps the educational research landscape in a constant flux of change. I believe this is due to a wide range of top quality arts-based media choices
available at reasonable cost. I considered and embraced this new film application for arts-based educational research. I recommend a concentration of arts-based educational research using film, film editing, and film representation to expand knowledge in this area.

Closing Comments

The culmination of the research process provided important preliminary evidence that preschool-aged children diagnosed with cancer may learn and benefit from the stress-reducing techniques for coping and behavior management provided in the *I Feel Better With Music* curriculum. Positive curriculum effect stemmed from using music as a self-regulating and learning tool. Results of the study also provided information about how teaching theatre artists and students use social exchanges and interaction for learning when using educational theatre as a learning medium. Further, by linking emotional responses and engagement in teaching and learning scenarios using educational theatre techniques, this work makes a contribution to teaching artist literature. This body of work also supports the expansion of complex interdisciplinary research.

In conclusion, observations and study findings support further curriculum refinement. I will use these findings to hone curriculum teaching and learning strategies to better teach self-regulation and behavior management techniques to young cancer victims, addressing this complicated arena of feelings and emotions. I feel there is justification to further develop the *I Better With Music* program for stress-reducing strategies, and to facilitate more research. My hope is that the program may ultimately empower children and their parents to better cope with the challenges of cancer. In addition, I hope to help health professionals seeking to offer comfort for children and parents. For children with cancer, this may have quality of life implications.
APPENDICES

Appendix A: Tool Kit
Appendix B: Flyer
Appendix C: Consent for Research
Appendix D: Consent for Taping
Appendix E: HIPPA Consent Form
Appendix F: Interview Questionnaire
APPENDIX A: TOOL KIT

Tool Kit Contents

- Tooth
- Sponges
- Cream
- Lip Balm
- Toolkit
- Mother Goose
- Itsy Bitsy Puppet
- Clay Doh
- Bubbles
A one-week fun program for research study on Health Education for preschoolers diagnosed with cancer.

The program is a music-based curriculum with accompanying backpack filled with music and arts-based materials, including a CD player, CD, and instruments for participants to keep.

Parking will be included for the duration of the study.

Laura Janelle Royster's
Mother Goose
Presents

I Feel Better with Music

For more information, please call:
Laura Janelle Royster
(919) 932-4732
APPENDIX C: CONSENT FOR RESEARCH

Consent for Research
University of North Carolina

Consent to Participate in a Research Study
Adult and Child Participants
Non Clinical
Social Behavioral Form

IRB Protocol Number: LCCC 0615
Internal IRB #: SOE 06-017

IRB Study #
Consent Form Version Date: August 28, 2006

Parent/Guardian Consent
Parent Name: _________________________________________________________

Child’s Name: _________________________________________________________

Title of Study:
I Feel Better with Music: Arts-based Educational Research Investigation of
Curriculum
for Preschoolers Diagnosed with Cancer using Educational Theatre as a Learning Medium

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Dr. Gary Duncan: gduncan@med.unc.edu
**What are some general things you should know about research studies?**
You are being asked to take part in a research study. To join the study is voluntary. You may refuse to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. You may not receive any direct benefit from being in the research study. There also may be risks to being in research studies.

Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study.

You will be given a copy of this consent form. You should ask the researchers named above, or staff members who may assist them, any questions you have about this study at any time.

**What is the purpose of this study?**
The purpose of this research study is to learn about the effects of an arts-based curriculum on preschool children diagnosed with cancer. I am Laura Janelle Royster, a doctoral student in Curriculum and Instruction at the University of North Carolina in the School of Education. I am asking you and your child to take part in a research study I am conducting. I designed the curriculum to impart health education, disease and treatment information, coping skills and behavior management techniques. The curriculum is an arts-based health education intervention curriculum that provides an opportunity to learn self-efficacy in coping skills and behavior management techniques.

Designed to answer specific questions, a research study in education may concern human interaction in teaching and learning, or curriculum effectiveness, or arts-based knowledge and emotional affect. I invite you to participate in a research study about an arts-based curriculum developed for preschoolers diagnosed with cancer. I hope to learn how this curriculum affects preschoolers’ learning about disease and treatment information, coping skills, and behavior management techniques. You are being asked to be in this study because you expressed interest in participating with your child in the curriculum; if you want to consent to participate in this study, you must read the following information and agree by providing your signature at the bottom of this form.

**How many people will take part in this study?**
If you decide to be in this study, you will be one of three participating parents accompanied by a child in this research study.

**How long will your part in this study last?**
Your part in this study will last for one week, one forty-five minute to an hour curriculum session per day, for five days.

**What will happen if you take part in the study?**
This study involves a one-week curriculum for thirty minutes a day. The Tool Kit will be provided to use during and after the study, as will parking permits during visits to the hospital. The curriculum will take place at UNC Children’s Hospital.
videotaped and an interview with you conducted by an outside interviewer will take place after the curriculum is completed. We will ask you about the effect of the curriculum on the preschooler and explore the child’s use of the Tool Kit. All of this information will help us to find out how the curriculum and Tool Kit affect preschool children’s learning, and if the effects show a trend in confidence building and self-efficacy.

I will meet with you and your child to sign consent forms for permission, distribute Parent Resource Information, Teaching Guide, and accompanying literature before the curriculum begins. This meeting takes place prior to the curriculum to inform you what to expect and prepare paperwork in advance of the research study. This pre-meeting gives you time to digest information and ask questions. At the meeting I will introduce the concept of Mother Goose teaching the curriculum and ask you how the child may react to costumed characters. This is an opportunity to address your child’s history and characteristic responses to experiences with costumed characters. This meeting will address these issues. This meeting is also to assess age grouping or the comprehensive level of child development for purposes of adapting the curriculum to include age-appropriate activities.

You must be present during each of the entire sessions. The classes are child focused; I encourage you to interact with your child as I work with him or her in the character of Mother Goose.


You and your child will actively participate in the curriculum activities to learn concepts about disease and treatment information. In addition, you both practice and master coping skills and behavior management techniques. For instance, both you and your child will learn new songs, dances, rhymes, breathing and imagery techniques. I expect you to participate with the child in music-assisted learning activities such as playing instruments, singing, dancing, creative movement, exploring fun sounds, reading, puppetry, dramatic play, arts-based projects. I will encourage your child to explore, experiment, and express him/herself. My goal is to create a unique and personalized learning experience that is fun for both you and your child to reinforce the child’s confidence in making healthy choices and self-esteem.

During the hands-on part of the study, sometimes I encourage your child to engage in the curriculum environment and tasks independently of you in order to build self-esteem, self-efficacy, and teach self-management techniques to reinforce healthy choices; however, you are an essential element of both the study and the child’s acceptance and retention of the techniques taught. Some children are naturally more gregarious than others; some children require more parent involvement than others. You must be prepared to pay close attention, and actively participate if you see a need to help your child feel more comfortable and attentive. Also, it is important that you participate so you can reinforce the coping skills and healthy behavior management techniques learned in the curriculum.
What are the possible benefits of this study?
Research is designed to benefit society by gaining new knowledge. You may also expect to benefit by participating in this study by gaining knowledge about disease and treatment information, coping skills, or behavior management. Further possible benefits are that your child may gain some understanding of his or her condition and how to cope with physical and emotional responses. You and your child will help us to understand preschool children’s needs for teaching disease and treatment information, coping skills, and behavior management skills to promote well-being and self-efficacy. I cannot guarantee or promise that you and your child will receive any benefits from this study.

What are the possible risks or discomforts involved from being in this study?
There may be uncommon or previously unknown risks. You should report any problems to the researcher. There is a potential risk that your child may respond adversely to some aspect of the curriculum. For instance, some children may find a music selection scary. They could become disturbed by the sound of certain instrumentals or instruments. Some children may have difficulty with dramatic play scenarios involving the medical kit if they recently have had similar procedures. If you feel that your child is in distress at anytime or having serious difficulty during any portion of the program, I will discontinue the activity causing distress in the session. For instance, there are times when a music selection may be associated with negative memories, or similar music from a scary movie. If a music selection is frightening, I will turn the music off. I will offer another selection for music-assisted learning strategies. If a dramatic play session brings remembered pain close to the surface, I will discontinue the play and move to another learning experience. Some children may have difficulty with dramatic play scenarios involving the medical kit if they recently have had similar procedures. If you as parent or the caregiver feel at anytime that your child is in distress or having serious difficulty during any portion of the program please let me know immediately and I will discontinue the activity during the session. I will communicate with your child and you to determine which music selection or activity is most conducive to return to instruction. You and I will care for your child to make them comfortable, and we will resume instruction when we agree that your child is ready. Communication with you and your child are crucial to the successful implementation of the curriculum.

It is important that parents understand they must not leave during the sessions, not even to receive a telephone call, unless it is an emergency. I want to maximize positive learning and minimize interruption during activities. Interruptions may cause confusion or upset for your child, which may reduce the curriculum effect.

In terms of your participation in the interview process, there may be some discomfort that some people feel when answering questions about personal or emotional subjects. Some discomfort may also be felt in sharing information by videography, although the videographer will be the least intrusive as is possible. If a particularly difficult, distressing, or private issue arises during the interview you can ask to have the videographer to stop the film tape.
How will your privacy be protected?

Participants may be identified in visual personae the film-based any report or publication about this study. Although every effort will be made to keep research records private, there may be times when federal or state law requires the disclosure of such records, including personal information. This is very unlikely, but if disclosure is ever required, UNC-Chapel Hill will take steps allowable by law to protect the privacy of personal information. In some cases, your information in this research study could be reviewed by representatives of the University, research sponsors, or government agencies for purposes such as quality control or safety.

You must understand and agree that the sessions will be videotaped, which will include recognizable images of you and your child in reports about the study. This film will be in a documentary style that will relate about the teaching and learning experiences during the study that may include personal health concerns and information that come up during the study.

There are no official medical records, treatment records, or diagnostic records used in this study. Only information provided by you and your child during a filmed study of the one-week health education program will be used for the study. There will be a film-based representation and report of the findings. I will use pseudonyms for each participant: study results will not publicly provide personal information about who you are. The names, telephone numbers, home or work addresses, or clinical data of participants are kept secret. However a visual and audio film of your child and you during curriculum sessions, and you during the interview session may reveal private health information about your child’s disease and will be available for an audience to see and hear. You and your child may be identified through the film depiction. You may request video recordings be turned off temporarily if a deeply disturbing episode occurs or is related in an interview.

The curriculum will be videotaped (identified by ID numbers only), the interview will be videotaped, and the independent interviewer, Karyl Askew, and I, Laura Janelle Royster, will analyze these tapes and use them in a film-based report of the study findings in DVD format for research purposes. The filmed portion of the study, questionnaires, and notes will be under lock and key. All data will be destroyed one year after the final representation is approved.

What will happen if you are injured by this research?

There is minimal risk of injury in this study, but all research involves a chance that something bad might happen to you. This may include the risk of personal injury. In spite of all safety measures, you or your child might develop a reaction or injury from being in this study. If such problems occur, the researchers will help you get medical care, but any costs for the medical care will be billed to you and/or your insurance company. The University of North Carolina at Chapel Hill has not set aside funds to pay you for any such reactions or injuries, or for the related medical care. There is no commitment by UNC, UNC Children’s Hospital, or UNC Health Care System, or your UNC physicians to provide monetary compensation or free medical care to you in the event of a study-related physical injury. However, by signing this form, you do not give up any of your legal rights. Further
information concerning this and your rights as a research subject can be obtained at the UNC Medical Center Office of Risk Management at (919) 966-3041. This information is supplied in accordance with the rules and regulations at UNC Children’s Hospital for research participants.

**Will you receive anything for being in this study?**
There are no monetary rewards for being in this study. However, you will receive the Tool Kit and complete contents that accompany the curriculum for taking part in this study. You will also receive free parking. When analysis and interpretation are complete, I will mail a copy of the finished video report to you.

**Will it cost you anything to be in this study?**
There will be no cost to you, your child, or your insurance for taking part in this study. Parking will be paid in advance. There is no cost to you or your child other than your time.

**What if you are a UNC employee?**
Taking part in this research is not a part of your University duties, and refusing will not affect your job. You will not be offered or receive any special job-related consideration if you take part in this research.

**What if you have questions about this study?**
You have the right to ask, and have answered, any questions you may have about this research. If you have questions, or concerns, you should contact the researchers listed on the first page of this form.

**What if you have questions about your rights as a research participant?**
A committee that works to protect your rights and welfare reviews all research on human volunteers. If you have questions or concerns about your rights as a research subject you may contact, anonymously if you wish, the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

Taking part in the study is entirely up to you. You may refuse to take part or drop out at any time. You may also refuse to answer any specific questions during the interview and the end of the study. In the event that you choose to stop participating in the study, you must return the tool kit and its contents.

“The purpose of this study, procedures to be followed, risks and benefits, have been explained to me. I have been allowed to ask questions, and my questions have been answered to my satisfaction. I have been told whom to contact if I have additional questions. I have read this consent form and agreed to be in this study, with the understanding that I may withdraw at any time with the consequence of returning the tool kit and its contents. I have been told that I will be given a signed copy of this consent form.”
**Participant's Agreement:**
I have read the information provided above. I have asked all the questions I have at this time. I voluntarily agree to participate in this research study.

_________________________________________   _________________
Signature of Research Participant     Date

_________________________________________
Printed Name of Research Participant

_________________________________________  _________________
Signature of Person Obtaining Consent   Date

_________________________________________
Printed Name of Person Obtaining Consent
APPENDIX D: CONSENT FOR TAPEING

Consent for Taping Research Study
University of North Carolina

Consent for Taping Research
University of North Carolina
Non-Clinical Research

Parent/Guardian Consent Research Consent for Taping

“I have been told that the curriculum will be videotaped (identified by ID numbers only), that the interview will be videotaped, and that Laura Janelle Royster and the independent interviewer, Karyl Askew, will analyze these tapes and use them in a film-based report of the study findings in DVD format for research purposes only.”

The information obtained in this study is to be used in scientific papers, written and a documentary style film-based research study reports. The information will refer to a participant pseudonym, and no individual names will be used. Personal information outside of the film data about you and your child will be kept secret. However, visual images of you and your child will be available in a film-based rendering, or documentary style report about the research study. This means that a visual and audio persona filmed of your child and you relating private health information about your child’s disease and treatment during the filming of the study will be available for an audience that is interested in this research to see and hear. This film will be in a documentary style that will relate personal health concerns and information that come up during the teaching and learning experiences during the curriculum and interview.

“I hereby agree to the use of videotape of curriculum and videotape of interview.”

Date__________________
Signature of Parent/Guardian
____________________________________________________________

Date___________________
Signature of Individual Obtaining the Consent
_____________________________________________________________
APPENDIX E: HIPPA AUTHORIZATION FORM

HIPAA Authorization Form
Consent Form

I, _________________________, give permission to the University of North Carolina at Chapel Hill, School of Education, to use the following protected health information for research purposes in the study by Laura Janelle Royster, I Feel Better with Music for my child:

Visual recorded and textual information about my child’s diagnosis of cancer, disease and treatment information, and affect. I understand the study is about children with cancer to help them understand disease and treatment information, help them with coping skills, and behavior management.

I understand there are no official medical records, treatment records, or diagnostic records used in this study. Only information provided by my child and me during a filmed study of the one-week health education program designed for preschoolers diagnosed with cancer will be used for the study. There will be a film-based representation of the research study findings in a documentary style report.

This means that a visual and audio persona filmed of my child and me relating private health information about my child’s disease and treatment during the filming of the study will be available for an audience to see and hear. The information will refer to a participant pseudonym, and no individual names will be used. The researcher will maintain strict confidentiality concerning personal records such as clinical data and contact information, with the exception of personal health information that may appear on videotape. This film will be in a documentary style that will relate personal health concerns and information that may come up during the teaching and learning experiences during the curriculum.

You may refuse to sign this authorization. Your refusal to sign will not affect your ability to obtain treatment. You may also revoke this authorization in writing at any time by sending written notification to Name of Privacy contact at office address. Your notice will not apply to actions taken by requesting person/entity prior to the date they receive your written request to revoke authorization.

Signature of Parent Participant for Permission for Parent and Child Participants

__________________________________________________ Date ______________

Printed Name of Parent Participant

____________________________________________________________________

Research Study Principal Investigator

____________________________________________________________________
APPENDIX F: INTERVIEW QUESTIONNAIRE

I Feel Better with Music: A Case Study of Arts-based Curriculum for Preschoolers

Diagnosed with Cancer

Interview Questionnaire

Name______________________Age________________________Sex______________

We are interested in how the arts-based curriculum, I Feel Better with Music, and accompanying Tool Kit affect your child’s behaviors outside of program sessions. There are some questions that can help us get a picture of your child’s understanding of disease and treatment information, coping skills, and behavior management techniques offered during the program sessions. We also would like for you to help us understand the degree of response positively or negatively to the stress-reducing elements of the curriculum and Tool Kit.

**Purposeful Activities:**
In order for us to understand the impact of the curriculum, we need evidence of learning about disease and treatment information, coping skills, and behavior management techniques. We are also looking for displays of newly acquired healthy behaviors. It would help us if you can answer all questions as best you can.

**Yes**  **No**  **Maybe**

**Frequency Code:**  **Never**  **Rarely**  **Sometimes**  **Often**

Please elaborate on details you think may be relevant to important learning and stress-reducing elements of the curriculum and Tool Kit. Accounts about newly acquired healthy behaviors attributed to the program are valuable.

**Tool Kit:**

1. Is your child carrying the Tool Kit:

   **Never**  **Rarely**  **Sometimes**  **Often**

   Explain__________________________________________________________________________________
   _________________________________________________________________________________________
   _________________________________________________________________________________________

2. Has your child learned the Tool Kit (backpack) is to carry items to use to make her/him feel better?

   **Yes**  **No**  **Maybe**

   Explain__________________________________________________________________________________
   _________________________________________________________________________________________
   _________________________________________________________________________________________

3. What do you like or dislike about the design of the Tool Kit as a backpack?

   _________________________________________________________________________________________
   _________________________________________________________________________________________
   _________________________________________________________________________________________

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CD and CD Player:

4. One of the important elements of the Tool Kit is the CD and CD Player. Has your child learned to use the CD Player and headphones, including turning the player on and off and finding specific songs on the CD?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Maybe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explain________________________________________</td>
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</table>

5. Outside of the program, does s/he use music to:

- **Music to make her/him feel better emotionally?** ______
  Explain________________________________________
  ________________________________________________
  ________________________________________________
  ________________________________________________

- change her/his mood? ______
  Explain________________________________________
  ________________________________________________
  ________________________________________________

- help control her/his behavior, like alleviating anger? ______
  Explain________________________________________
  ________________________________________________
  ________________________________________________

- help her/him with positive thinking? ______
  Explain________________________________________
  ________________________________________________
  ________________________________________________

- **make her/him feel better physically?** ______
  Explain________________________________________
  ________________________________________________
  ________________________________________________

- accomplish difficult tasks or medical procedures (such as long IV sessions)?
  Explain________________________________________
  ________________________________________________
  ________________________________________________

- Does s/he use:
  - Energizing music to help her/him feel more energetic? ______
    Explain________________________________________
    ________________________________________________
    ________________________________________________
  - Relaxing music to help reduce her/his stress levels? ______
    Explain________________________________________
    ________________________________________________
    ________________________________________________
  - Relaxing music for other purposes? ______
    Explain________________________________________
    ________________________________________________
    ________________________________________________
Sleepy Time music to help her/him go to sleep? ______
Explain__________________________________________________________
____________________________________________________________________
____________________________________________________________________

Eating and nutrition music to help her/him with healthy eating behaviors? ______
Explain__________________________________________________________
____________________________________________________________________
____________________________________________________________________

Therapeutic music to help her/him accomplish smaller tasks or routines like mouth care? ______
Explain__________________________________________________________
____________________________________________________________________
____________________________________________________________________

Do you believe using music reduces stress for your child?
Explain__________________________________________________________
____________________________________________________________________
____________________________________________________________________

6. Are there other musical choices that your child makes to effectively address specific situations?
   ______ Please describe the circumstances and the results.
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Laura Janelle Royster's I Feel Better with Music: Mother Goose and Little Bear
Another important element of the Tool Kit is the book, Laura Janelle Royster's Mother Goose and Little Bear. It reflects the program, providing a way to revisit the curriculum outside of the sessions.

7. Do you find that this book helps you and your child remember and work with the ideas and practices that s/he learned in our sessions together?
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Do you believe using the book helps to reduce stress for your child?
Explain__________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
Disease and Treatment:

**Medical Kit:**
8. Does your child play with the Toy Medical Kit from the Tool Kit for therapeutic dramatic play?
   - Never
   - Rarely
   - Sometimes
   - Often

9. Does this help your child cope with or understand hospital procedures better?
   - Never
   - Rarely
   - Sometimes
   - Often

Do you believe this reduces stress for your child?
Explain

Hygiene:
10. Has your child learned to use Tool Kit items that keep him/her from getting sick, like washing away germs with antibacterial hand wash, use of alcohol swabs, face masks, handy items for important treatment routines like mouth-care?
   - Yes
   - No
   - Maybe

Explain

11. Does your child use items to relieve uncomfortable side effects, like nausea, dry lips, or chills?
   - Yes
   - No
   - Maybe

Explain

Do you believe this reduces stress for your child?
Explain

Nutrition:
12. Does your child use what s/he learned in our sessions together about the importance of eating well when one is sick?
   Explain

13. Has s/he learned to use Tool Kit items to support healthy eating habits?
   - Yes
   - No
   - Maybe

Explain

Coping Skills and Behavior Management:
Now, we will turn to coping skills and behavior management techniques taught during the program.

14. Did this program help your child learn more about coping skills and behavior management techniques?
   - Yes
   - No
   - Maybe

Can you give me some examples?
15. Does your child use the Tool Kit items to control her/his own feelings or behaviors?
Yes  No  Maybe
Can you give me some examples?

16. Can you explain whether the items were used for a physical or emotional condition and can you name any of the items s/he uses in this manner?

________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________

17. Can you see your child becoming better able to make herself/himself more comfortable physically or emotionally through the choices they make?
Yes  No  Maybe
Explain

________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________

18. Does your child talk about the challenges that Itsy-Bitsy Spider faces or use the puppet in play situations that reflect her/his own challenges?
Yes  No  Maybe
Explain

________________________________________________________________________________________
________________________________________________________________________________________

19. Explain the effect of the Sound cradle experience on your child’s emotional behavior.
Explain

________________________________________________________________________________________

20. What did your child learn about Quiet Time?
21. Positive thinking in our sessions involves breathing techniques for relaxation and imagery. If your child uses any of these techniques outside of the session, which ones does s/he use?

22. Anger management, as taught in our sessions, involves selecting among music, breathing and relaxation techniques, and various activities. What does your child do differently after our sessions than before when angry behavior escalates?

23. How has our sessions together affected how your child communicates her/his feelings, emotions, and needs?

Questions in general:

24. Do you feel there were any important strategies in the curriculum that were not included and should have been? ________ Which ones and why?

25. Has this curriculum affected your child’s self-efficacy or self-control in difficult situations? ______ Describe what has occurred.
26. Tool Kit:
   a. Have there been problems with any of the Tool Kit items or equipment?

   b. Do you feel any items or equipment included in the Tool Kit is inappropriate to the purpose of this curriculum?

   c. Do you feel any musical numbers are scary or inappropriate to the purpose of this curriculum?

   d. Overall has this program been effective in reducing stress by presenting disease and treatment information?

   e. Do you believe these coping skills and behavior management techniques presented in this program reduces stress for your child?

27. If a follow-up study was approved, would you consider filling out a similar questionnaire, survey, or engage in a telephone-interview in three months and six months to update this information?
REFERENCES


Washington DC: Arts Education Partnership & President's Committee on the Arts and Humanities.


