Project 3rd Grade Environment: Descriptive Phenomenological Study of the Physical and Learning Environment in a Transformed 3rd Grade Classroom.

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Project 3rd Grade Environment:
Descriptive Phenomenological Study of the Physical and Learning Environment
in a Transformed 3rd Grade Classroom

A thesis
presented to
the faculty of the Department of Human Development and Learning
East Tennessee State University

In partial fulfillment
of the requirements for the degree
Master of Arts in Early Childhood Education

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May 2010

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Constructivism, developmentally appropriate practice, early childhood, physical environment, primary grades, 21st Century Model for Teaching and Learning and Educational Change
ABSTRACT

Project 3rd Grade Environment:

Descriptive Phenomenological Study of the Physical and Learning Environment

in a Transformed 3rd Grade Classroom

by

Charity Gail Hensley

This is a descriptive phenomenological study of a 3rd grade classroom in East Tennessee that was transformed in late spring 2009 to be consistent with principles incorporated in the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010). The objectives of this study were 1) to document the current physical and learning environment and 2) interview the participant regarding a classroom transformation in relation to teaching and learning. Methods of data collection included: interview questions related to the classroom environment pretransformation and posttransformation, observation field notes, and photographs of the current environment. In addition, archival photographs of the pretransformation environment were used in analysis of data. Data were gathered and systematically analyzed and then compared to recommended best teaching practices for early childhood. Based on findings, one can conclude that a classroom environment based on principles of the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010) enhances teacher attitude in relation to role of the environment in the teaching and learning process.
DEDICATION

I am forever grateful to my family that has been a source of encouragement and inspiration to me throughout this work and my life. I wish to express my gratitude for the ways in which they have actively supported me in my determination throughout this endeavor. I wish to thank my friends and coworkers for their continual support and optimism. Great appreciation is extended to my “church family” for the uplifting prayers and words of inspiration. Most of all, I thank God who continually makes the impossible possible.
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CHAPTER 1
INTRODUCTION

Oftentimes, children spend their schooldays in a classroom that is unresponsive and factory-like. This type of environment does not promote a sense of warmth, security, and familiarity. A homelike, welcoming environment is more conducive to learning because children feel safe and free to take risks when exploring and interacting with the individuals and materials within the classroom (Brooks & Brooks, 1999). Research asserts a well-designed environment holds the potential to support and enhance development in all domains of learning (Stewart & Evans, 1997). Constructivist theory holds learners develop knowledge through interactions within a well-designed environment (Piaget, 1953). Numerous research studies have established a link between the developmentally appropriate classroom environment and the teaching and learning process (Brumbaugh, 2008; Carter, 2008; Charlesworth, 1998; Cunningham, 2006; Jones & Gullo, 1999; Lubeck, 1998).

Although some may view the environment as irrelevant to learning, the work of many theorists and educators including Jean Piaget, John Dewey, and Urie Bronfenbrenner guide early childhood professionals’ view that a developmentally appropriate environment is key in the learning process. In his theory of cognitive development, Jean Piaget asserted children develop personal knowledge and beliefs about the environment through meaningful interactions with individuals and objects within the environment. According to Piaget, children learn best when allowed to explore their environment through play-based interactions and construct their own understanding of various concepts (Piaget, 1953).

Likewise, John Dewey’s model of progressive education held educators are responsible for providing experiences that are valuable and meaningful. Dewey asserted children’s
experiences are built from previous knowledge and understanding. Dewey held active learning experiences help learners assimilate new information and construct advanced understanding. Another important element of progressive education is the provision of rich social interactions. When children are allowed to dialogue with others in regard to their understanding of concepts, learning is enhanced and expanded (Dewey, 1998).

Urie Bronfenbrenner’s ecological systems theory examines the importance of meaningful interactions between a child and his or her environment. According to Bronfenbrenner, a bi-directional relationship exists between individuals and the environment. Bi-directionality asserts as children interact with the environment a reaction is produced and thus learning occurs. Therefore, it is critical that children are provided with an environment rich with experiences that support and encourage learning (Bronfenbrenner, 1972).

Although numerous theories support a constructivist approach to teaching and learning, many classrooms remain traditional in teaching practice and in physical design (Brooks & Brooks, 1999). The lack of connection between theory and application may be due to an absence of know-how in implementing theoretical foundations into practice. In an attempt to aid educators, the National Association for the Education of Young Children (NAEYC) has set forth a series of guidelines designed to promote best practice in the field of education. Many professionals in the field of early childhood seek guidance from the standards set forth by NAEYC (Bredekamp & Copple, 1997).

NAEYC holds the teacher responsible for creating a caring community of learners. NAEYC asserts it is the responsibility of educators to enhance development and learning of all children. One way to do this is through the planning and implementing of a curriculum that meets important learning goals. Ongoing and authentic assessment provides educators with the
most accurate representation of children's development and learning. Lastly, teachers must strive to establish reciprocal relationships with families. NAEYC further asserts that each of these components can be addressed through the provision of a developmentally appropriate classroom (Bredekamp & Copple, 1997).

The Reggio Emilia Approach, a contemporary teaching approach in early childhood education, uses the environment as the “third teacher.” Within the Reggio Emilia schools, a great deal of importance is placed on the design of environments to teach young children. These schools are designed with a focus on aesthetic beauty as an important aspect of the environment (Cadwell, 2002). The environment is designed to enhance collaboration and social interaction, which are key principles of the Reggio Emilia philosophy. Reggio Emilia educators plan and organize environments to provoke and encourage exploration and problem solving. In this way the environment directs the learning process naturally (Cadwell, 1997).

Despite overwhelming research in support of constructivist learning environments, many classroom designs remain traditional (Bredekamp & Copple, 1997; Brumbaugh, 2008; Burts, Hart, Charlesworth, & Kirk, 1990; Cadwell, 1997, 2002; Carter, 2008; Charlesworth, 1998; Cunningham, 2006; Jones & Gullo, 1999; Lubeck, 1998; Szente & Hoot, 2002). At a time when society requires thinkers who are creative, innovative, self-motivated, and productive, it is critical for educators to implement every measure to ensure success for all learners (Schmidt, 2004). Designing and implementing a developmentally appropriate learning environment will aid in preparing students for the 21st century.

Definition of Key Terms

The terms on the subsequent page are used throughout the study and are defined for the purposes of this research study:
• Constructivism can best be viewed in terms of theory in regard to child development, rather than as a teaching style. Constructivist theory asserts that learners construct their own personal knowledge through interactions with individuals and objects within the environment (Piaget, 1953).

• Developmentally appropriate practice is defined by Bredekamp and Copple (1997) as “a perspective within early childhood education whereby professionals nurture a child's social/emotional, physical, and cognitive development by basing all practices and decisions on (1) theories of child development; (2) individually identified strengths and weaknesses of each child uncovered through authentic assessment; and (3) the child's cultural background as defined by his community, family history, and family structure” (p. 7).

• Early childhood spans human life from birth to age 8 and is one of the most critical stages of life in which learning occurs. The term “early childhood education” refers to educational programs and strategies geared toward young children (generally preschool-aged children). Early childhood education is best described as the practice of guiding children to learn through hands-on, play-based experiences in a well-planned environment (Bredekamp & Copple, 1997).

• Physical environment refers to the room arrangement, materials, equipment, space, display of children’s work, elements of design (e.g., décor, color, etc.), and physical design of the room (Hemmeter, Maxwell, Ault, & Schuster, 2001).

• Primary grades refers to children ages 6 through 8 years. Children of this age are generally enrolled in first through third grades (Bredekamp & Copple, 1997).

• 21st Century Model for Teaching and Learning and Educational Change refers to a model based on transforming the environment (foundation), enhancing engagement (classroom
culture), and enhancing teaching and learning (academics). The model makes provisions for the extension of early childhood beliefs and practices into primary grades (Evanshen, 2010).

Summary

Chapter 1 outlined the principles related to a traditional classroom in comparison with a non-traditional, more constructivist-based classroom environment. Key terms used within the research were also defined. Chapter 2 provides a review of current literature regarding early childhood theory and the asserted outcomes of traditional and constructivist classroom environments.
CHAPTER 2

LITERATURE REVIEW

Introduction

Today’s students and teachers are experiencing mounting pressure to meet state learning standards. Despite support for constructivist practices, many opt for methods of direct instruction in hopes of helping students achieve on standardized tests required by the No Child Left Behind Act of 2001 (Nichols, 2003). At this time in our nation’s history of education, many professionals are attempting to uncover which practices of education truly work. In order to meet the needs of individual learners, it would be beneficial for educators to resist the temptation to follow traditional classroom practices and embrace the constructivist approach to education (Brooks & Brooks, 1999).

Despite the overwhelming amount of support for constructivist teaching practices, the majority of schools in the United States continue to base practices on the behaviorist theory (Battistich, Watson, Solomon, Lewis, & Schaps, 1999). According to behaviorist theory, responses to environmental stimuli shape human behavior. Many teachers implement reward and punishment systems in order to condition student responses (i.e., behaviorist practice), rather than promoting intrinsic motivation to learn (Skinner, 1991). By doing so, teachers are actually inhibiting rather than promoting the learning process. This begs the question, “Why has a transition from traditional classroom practice to more constructivist-based classroom practices not occurred despite research favoring constructivism?” Perhaps one possible reason is the lack of clarity in regard to the definition of constructivism. This author seeks to illustrate elements of constructivist practice and provide reasoning for the effectiveness of a constructivist environment in providing children with the knowledge to meet millennial learning expectations.
Traditional Approach

Many of today’s classrooms are factory-like, teacher-directed, and uninviting. Oftentimes, information is introduced through lectures, direct instruction, rote memorization, and teacher-led activities. Student behavior is managed through extrinsic motivation (e.g., gold stars, prizes, etc.). Little attention is given to the individual differences and needs of each child. Teachers in this type of classroom generally use standardized testing practices in order to assess knowledge (Charlesworth, 1998). Perhaps in times past, these practices were considered to be necessary, but the needs of today’s society differ greatly from those of the past. Today’s society calls for problem-solvers, collaborators, and lifelong learners; therefore, it is imperative that we transition to a more nontraditional approach for educating young children (Schmidt, 2004).

Moving DAP to Primary Classrooms

In order to meet the needs of a diverse society, implementation of developmentally appropriate practice (DAP) in America’s education system is necessary. Teachers must collaborate in order to create custom teaching practices for children in each classroom. A strict set of practices for each teacher to follow and implement is unrealistic due to the variety of learning needs for children. A paradigm shift is needed in order for classroom teachers to move toward DAP. DAP cannot be implemented in a day. The shift from traditional practice to a more nontraditional, developmentally appropriate practice is a process, and many teachers require further training and understanding of the principles surrounding DAP before making the shift (Lubeck, 1998).

In order to effectively move toward DAP, educators must realize students’ current understanding affects future learning experiences. Classroom environments and activities may be designed to meet individual learning needs and allow for expanding understanding of
concepts. A sense of classroom community promotes an atmosphere of security, acceptance, and collaboration. Teachers can also limit or reduce the use of rating scales and undue reliance on standardized tests and incorporate more holistic, on-going assessments such as anecdotal records, running records, portfolios, checklists, etc. in order to gain a more in-depth and accurate representation of students’ understanding of certain concepts. The use of reflective practice allows teachers to gain insight into personal knowledge and experiences. Teachers may then identify appropriate and effective practices and apply this information to their personal and professional practice of teaching (Lubeck, 1998).

**Supporting Theory**

Nontraditional, constructivist beliefs place a great deal of relevance on activity and problem-based, social learning experiences for young children. Students require diverse viewpoints and opportunities to share their own knowledge and personal experiences. Students of the 21st century need social experiences in order to be successful learners and future collaborators. Many developmental tasks involving socialization were explicitly described by child development theorists Lev Vygotsky and Jean Piaget and have been identified to span across cultures (Carter, 2008).

Lev Vygotsky’s social development theory focuses on the importance of social interaction and exploration in the process of development. According to Vygotsky children’s development is influenced by the interactions between themselves and the individuals and objects within their environment. Children are active participants in these relationships and, therefore, are actively constructing their own knowledge and beliefs in regard to the world around them. Vygotsky further asserted children operate within the zone of proximal development (ZPD) in which they have not yet fully developed the skills and knowledge
necessary for task completion but may be successful with appropriate support (Leong & Bodrova, 2001). Therefore, Vygotsky’s social development theory supports a classroom environment rich in social interaction and movement opportunities. “What children can do with the assistance of others might be in some sense even more indicative of their mental development than what they can do alone” (Vygotsky, 1978, p. 5).

Similarly, Jean Piaget’s theory of cognitive development asserts children construct their own knowledge through direct interactions with the environment. Piaget maintained learners experience a sense of disequilibrium or a sense of conflict. Piaget defined disequilibrium as the ongoing process of resolving the discrepancies encountered by learners as they assimilate and accommodate new information with prior schemas. Piaget asserted learning could not occur without a state of disequilibrium as this experience of conflict moves the child's intelligence into a more mature understanding. An environment rich with materials that cater to a child’s natural sense of wonder and curiosity is key to spurning learning and development. As children explore the environment, the teacher embraces every learning opportunity and strives to provide the resources necessary for aiding learners in gaining understanding of a variety of concepts (Piaget, 1953).

John Dewey acknowledged education and daily life to be interrelated. Dewey proposed children learn best through active exploration of the world around them. Dewey proposed learning was a continuous process based on past knowledge, understanding, and new experiences. In other words, Dewey declared learning to be an active process. He asserted children came to school to participate and live in a classroom community of learners and this community provided real, guided experiences that ultimately enhanced their ability to contribute to society (Dewey, 1897). According to Dewey (1897), the role of the teacher is to observe
children’s interests and provide opportunities for their interests to be followed and further developed.

Gardner’s (1983) theory of multiple intelligences suggests children are smart in several ways and children exhibit their intelligence in a multitude of ways. Gardner named eight distinct intelligences including: naturalist, interpersonal, intrapersonal, linguistic, logico-mathematical, musical, bodily-kinesthetic, and visual-spatial. Gardner described the traditional classroom environment and the traditional teaching style as catering primarily to children with predominance for linguistic or logico-mathematical intelligence.

Becoming aware of multiple intelligences and learning styles allows educators to meet the needs of a diverse population of learning. Learning styles refers to the notion that a variety of approaches to learning exists and individual learning styles result from an individual’s interaction with and processing of environmental stimuli. Ideally, teachers will strive to address multiple intelligences and to assess students’ learning style. Teachers may use their knowledge of multiple intelligences and learning styles to assess students in order to adapt the classroom environment and teaching methods to best suit each learner’s needs (Sternberg, 1997).

Several learning styles exist including auditory, visual, and kinesthetic. Auditory learners most effectively gain understanding through listening to the presentation of information. Visual learners gain knowledge through visual presentation of information. Kinesthetic learners learn best though hands-on experience. The recognition of learning styles allows teachers to design an environment and implement practices which meet the learning needs of all students (Sternberg, 1997).

When designing developmentally appropriate classroom environments, educators must keep in mind the aforementioned theoretical views. Knowledge of developmental tasks and
educational theory allows educators to build programs based on general characteristics for groups of young children and take into account individual preference, development, and skills. The environment should be designed in a way that caters to the personal needs of the unique community of learners. Children respond to the materials within the environment in relation to their previous knowledge and understanding. The provision of developmentally appropriate materials aids in the learning process. The implementation of relevant and meaningful curriculum is key to the success of all learners (Charlesworth, 1998).

A constructivist teacher designs an environment that meets the needs of a diverse population of learners through the identification, development, and application of individual’s intelligences and unique learning style (Gardner, 1983). The incorporation of principles of early childhood theory into primary practice ensures that all students are prepared to meet the needs of 21st century society. Being aware of all developmental theories and applying these concepts to practice will ensure optimal learning experiences for all students (Charlesworth, 1998).

Developmentally Appropriate Practice

Development is defined as change in an individual across his or her lifespan (Feldman, 2007). Developmentally appropriate practice (DAP) is teaching designed to meet the needs of individual children at various stages of development across disciplines and learning domains. According to NAEYC (2003), DAP refers to an approach in which the instruction is child-centered and takes into account each individual’s culture and personal experiences. When teachers build reciprocal relationships with families and are familiar with the culture and history of the students, the task of providing developmentally appropriate materials is made simple. These materials can encourage exploration and knowledge acquisition as students build upon previous understanding. DAP allows children to make personal choices related to learning and
the teacher functions as a decision-maker and guide. Assessment is appropriate, authentic, and ongoing in a DAP classroom (Charlesworth, 1998).

There is a lack of research documenting the potential benefits of developmentally appropriate practice at the primary grade level. Previous research related to DAP has found that while many teachers support DAP in the primary grades, their teaching approach does not always reflect such beliefs. This being said, it is difficult for researchers to identify the benefits of DAP based on what teachers claim to practice in comparison to actual practice (Jones & Gullo, 1999).

A study conducted by Szente and Hoot (2002) claimed that children engaged in a developmentally appropriate, child-centered environment display advanced levels of creativity and language skills, in comparison with peers in a teacher-led classroom. Despite the fact that the studies were conducted in preschool and kindergarten classrooms, researchers generalize the same outcomes from primary students (Szente & Hoot, 2002). This information supports the hypothesis that children gain greater outcomes in an environment based on best practice versus a traditional classroom. Research conducted at the preschool and kindergarten levels have identified many short-term benefits of a developmentally appropriate environment while ongoing research seeks to identify long-term benefits for students engaged in classrooms based on best practices of education (Jones & Gullo, 1999).

Research has suggested children participating in more traditional preschool classrooms demonstrate an increased stress level in comparison with peers enrolled in a classroom using DAP (Burts et al., 1990). Research also showed that preschool-aged children rate lower on behavioral evaluations and tend to be less motivated in a more traditional classroom when compared with peers in a more DAP classroom. Results remained consistent when the study was
extended to include elementary grade children (i.e., kindergarten through third grade), suggesting that fewer DAP classroom experiences at the preschool level will lead to lower academic achievement, poor conduct and work habits, high distractibility, and fewer prosocial behaviors (Charlesworth, 1998).

Charlesworth (1998) defines developmentally inappropriate practice as primary teaching practices based primarily on direct instruction, paper-based assessments, extrinsic motivation to learn, and limited attention to the unique needs of each learner. In classrooms operating at a developmentally inappropriate level, the lack of culturally sensitive curriculum can damage diverse populations of students (Charlesworth, 1998). All children need active, engaging experiences; however, Charlesworth (1998) found that African American students are in greater need of freedom, activity, and innovative experiences in comparison with European American peers. DAP curriculum meets the needs of all students through the provision of concrete materials, child-directed learning, and exploration. Developmentally appropriate practices can then be directly cited as a contributing factor to high levels of student performance and achievement (Cunningham, 2006).

Developmentally appropriate practice (DAP) as outlined by NAEYC was developed by a diverse population of individuals in the field of early childhood education and is a set of values and beliefs that are supported by vast research in education. NAEYC’s position statement and guidelines are considered by many to be the “most influential document related to education in the last century” (Charlesworth, 1998, p. 274). Despite the complexity of the DAP guidelines, many individuals use them in classroom practice. While many classrooms claim to be developmentally appropriate, no two classrooms are the same. This may be due in part to the unique nature of each classroom population of students. The key to acceptance and accurate
implementation of DAP may lie in the need for collaboration among early childhood professionals (Lubeck, 1998).

NAEYC (2003) expanded the teacher’s role to be that of a decision-maker and guide in comparison to the more traditional role of sage and knowledge source. DAP classrooms are rich with manipulatives, social interaction, and activity versus a traditional environment of paper-pencil based activities, rows of desks, and limited interaction with materials and each other. Despite abounding evidence in favor of more developmentally appropriate practices, many continue to use the traditional approach (Lubeck, 1998).

Context must be taken into account in each situation. DAP cannot be implemented equally in all settings due to teacher development and knowledge, student characteristics, community, etc.; however, teachers must strive for optimal implementation of DAP. Collaboration among teachers, families, community members, and other professionals in the field is necessary in order to gain further understanding of the context of the environment in which children are growing and learning (Lubeck, 1998; NAEYC, 1993).

21st Century Model for Teaching and Learning and Educational Change

Educators of the 21st century hold the responsibility to provide programs that assist children in becoming effective and productive citizens. Specifically, society requires today’s learners to exhibit creativity, critical-thinking, innovation, communication skills, and collaboration in order to be successful (Evanshen, 2010). As previously stated, now is the time for educators to move from the traditional classroom approach to one that embraces the unique learning needs of each child in order to meet the needs of modern day society. Traditionally, primary classrooms are uninviting and cold. Children are passive in the learning process (e.g., lectures, paper-based assessment, rote learning) and adults experience stress due to demands for
achieving certain test scores. The 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010), which is based upon early childhood principles, makes provisions for the extension of early childhood beliefs and practices into primary grades. It addresses how teachers can implement classroom changes that will help students reach optimal development.

It is possible for quality learning environments to extend beyond early childhood and into primary classrooms. The 21st Century Model for Teaching and Learning and Educational Change focuses on the transformation of the environment, the engagement of the learner, and the academic enhancement of the learner. This change requires a great deal of dedication on the part of the leaders, teachers, and families involved. There are several elements that can assist in the formation of quality primary environments. A sense of shared leadership, long-term goals, professional consultation, integrated curriculum, and a change in school culture are all necessary components for change. The overall goal of change is to move from a traditional approach to education to one that is learner-centered and incorporates principles of early childhood best practices. The transformation of classroom environments from traditional to nontraditional, developmentally appropriate, and constructivist-based will assist students in developing the skills necessary for success in the 21st century (Evanshen, 2010).

**Transform the Foundation: Environment**

Experiences are the most effective way to learn. Allowing children the opportunity to engage in activity and problem-based learning experiences in a well-planned environment rich with manipulatives will provide opportunities for optimal development in all domains. Experiences with a diverse population of individuals allow children to gain knowledge and respect of other cultures. Indoor and outdoor experiences are also critical to the learning process.
Children must be allowed to explore the world in which they live in order to gain knowledge and understanding of various concepts (Brumbaugh, 2008).

One important element of a nontraditional classroom environment is the implementation of brain-compatible research related to education. Brain-compatible teaching strategies are designed with a basis in neuroscience or in layman’s terms what is known about the human brain and nervous system. Brain-compatible teaching is founded on principles based on current understanding of the brain and how it works in relation to knowledge acquisition. For example, educators who implement brain-compatible components must additionally create an environment that is free of threat and stress because research suggests that a positive classroom environment is more conducive to learning. Some brain-compatible strategies for creating a calm and positive classroom environment include stretching exercises, recess, and movement opportunities (Jensen, 1998).

Activity and problem-based learning experiences promote lifelong learning. The provision of ample time for both structured and reflective exploration and hands-on experiences allows optimal learning to occur. Social movement activities provide lessons in turn-taking, development of social skills, and creativity that are not usually provided by traditional classroom activities. The implementation of centers is a great way for teachers to promote meaningful learning experiences. The careful selection of materials and activities enhances learning for young children. Teachers can use activity and problem-based experiences as assessment opportunities. The use of observations, anecdotal records, checklists, etc. provides teachers insight into each developmental domain. These assessments are more authentic representations of learning as well as more developmentally appropriate methods of assessment (Brumbaugh, 2008).
A key element of an effective learning environment is the provision of an enriched environment. An enriched environment is designed to make students feel welcome and free to learn. This type of environment encourages learning through the provision of appropriate and meaningful materials and adequate time for students to become engaged in learning. A flexible classroom design and schedule contributes to the learning process. Seating choices and various work spaces accommodates a variety of learning styles and intelligences. Movement opportunities throughout the day keep the body and mind alert and ready for learning (Evanshen, 2010).

Transform the Classroom Culture: Engagement

The classroom culture focuses on engaging the learner, which is the second tier of the model. Creating a warm, nurturing classroom environment will ultimately lead to an atmosphere of respect and value in which all students feel involved in the learning process (Evanshen, 2010). Recent research suggests a connection between cognitive development and emotions (Goleman, 1995). Science has proven that a link exists between extended periods of stress and its effect on the learning process. Learning can become difficult or impossible in the presence of perceived threat or stress. The brain’s function includes memory, cognition, and emotions, all of which are used when interacting with the environment. Emotions associated with experiences have a direct influence on knowledge acquisition (Jensen, 1998). According to Vygotsky (1978) learning is a social process in which understanding is constructed in social context.

A climate in which children and teachers feel safe, secure, and valued ensures that learners engage in exploration, risk-taking, and hands-on learning. Students engaged in a positive learning environment feel encouraged to make choices, share ideas, and scaffold one another as they construct knowledge through active exploration of the environment. Teachers
may strive to create a classroom community of learners in which students feel free to explore, collaborate, and communicate, thus promoting optimal brain development and learning (Evanshen, 2010).

Today’s children must be given the opportunity to make mistakes and learn from them. A constructivist classroom provides children with such opportunities and encourages children to be educational risk-takers. The provision of hands-on, experiential learning activities allows students to learn cause-effect, scientific procedure, and trial and error. Children’s mistakes in this type of environment allow them to gain the experience and understanding necessary for future knowledge to occur (Carter, 2008).

Another important element of the environment is the provision of space and security that allows children to develop a sense of autonomy. Teachers can provide space through the implementation of child-directed learning, independence, and choices. Clearly defined centers with well-organized materials allow children to safely and easily work in the environment. Security is maintained when a classroom environment is warm, inviting, and safe. With space and security, children will feel comfortable and motivated to take risks and to learn from them (Brumbaugh, 2008).

Relationships, teachers with students, teachers with families, and students with other students, aid in the sharing of information, promote a sense of trust, and create a community of learners. The involvement of parents in the classroom helps to build strong relationships with children, peers, and teachers. Field trips provide students with authentic experiences and enhance learning through direct interaction with individuals and artifacts within the greater community outside the classroom (Evanshen, 2010).
Transform the Academic Approach: Enhancement

Once the second tier is achieved, the focus shifts to student enhancement. Within this tier, the teacher’s focus shifts to the development of meaningful content. Curriculum becomes directly aligned with student’s real-life experiences and learning expectations. A key principle of constructivist practice is the use of meaningful instruction in which students make connections between new information and previous understanding. Content must be relevant to the lives of the children. Meaningful content and instruction suggests that children’s efforts are making a significant contribution to the classroom, the community, and society. Activities hold purpose and meaning to learners as they demonstrate understanding of various concepts. Complex learning will occur when students feel that their efforts are valued and when an appropriate degree of challenge is presented (Evanshen, 2010).

In a constructivist classroom, the content challenges children to operate above their present level of thinking. Constructivist teachers introduce students to concepts that are challenging along with materials that hold the capability to be manipulated and investigated, thus challenging students to conduct research, collect data, and analyze their findings. Reasoning is promoted by the teacher in a constructivist classroom. Encouraging students to become aware of their own thinking processes and to become problem-solvers by providing time for self-reflection and the revisiting of various concepts and ideas is a key component of an effective learning environment (Cunningham, 2006).

In a constructivist classroom, assessment is viewed as a tool that is used to drive instruction rather than simply as a means to gauge children’s current level of understanding. The use of activity-based assessments is the most accurate, effective, and enjoyable method of collecting data on a child. These types of assessments are more accurate than paper-based
standardized tests because they include all developmental domains and knowledge areas. Developmentally appropriate assessments provide freedom and flexibility for the child to display his or her knowledge in a natural environment while aiding educators in discovering where a child is functioning developmentally, academically, socially, emotionally, and physically. When assessments are implemented and interpreted appropriately, the information provided is valuable in designing educational opportunities that promote student achievement and meet the needs of all learners (Kail, 2004).

When learning experiences are meaningful and assessment is appropriate, classroom peripherals will reflect student engagement and learning. Peripherals are the displays within the classroom (e.g., posters, signs, tabletop displays, etc.). According to Jensen (1997) peripherals are valuable learning tools as students use them to reference, review, and reflect upon various concepts. “The effects of direct instruction diminish, but the effects of peripherals often go up” (Jensen, 1997, p. 19). In this way the environment is used as a “teaching tool” that represents the planning and learning that takes place within the classroom (Evanshen, 2010). Meaningful peripherals, versus commercially bought décor, are linked to student learning and reflect students’ level of engagement and understanding. Students will view themselves as valuable contributors to the classroom community when learning is documented and displayed appropriately. Meaningful peripherals also guide the learning process as students reflect and build upon previous learning experiences (Evanshen, 2010).

Summary of Model

Those desiring to transform a primary school encompassing a shift from a more traditional classroom design to a nontraditional one based on constructivist principles must be aware that the process is long and requires full dedication of all stakeholders. The stakeholders include administrators, teachers, staff, parents, and students. It is necessary to spend time
engaged in conversation and reflection, reviewing test scores, participating in activities, evaluating classrooms, observing students within the environment, and determining goals for the future. Educators must also realize that change is not instantaneous. Depending on the size and needs of the school, the status of the environment and culture, the level of support from staff, and the knowledge of the leader, the change process can take between 2-5 years to occur (Evanshen, 2010).

Educators must also be aware that there is no “cure-all” philosophy or methodology of education that encompasses the needs of each learner. Remaining abreast of current research in regard to practices that are considered to be most appropriate for young children will aid educators in the implementation of developmentally appropriate practice. NAEYC’s (1993) position statement regarding developmentally appropriate practice is viewed as best practice in the field of early childhood education. Following DAP guidelines as a framework for teaching practice, educators may then tailor instruction to the children and families of the classroom in which they teach (Bredekamp & Copple, 1997).

Evanshen’s (2010) 21st Century Model for Teaching and Learning and Educational Change demonstrates that principles of best practice can be effectively extended beyond the preschool classroom and into the primary grades. The model is applicable to nearly every primary school setting but requires a great deal of dedication, support, and adaptability (Evanshen, 2010). This being said, it is unlikely that a curriculum or pedagogy can or will ever be developed that requires little or no adaptation to meet the needs of every learner (Lubeck, 1998). Our generation of learners is in dire need of constructivist education in order for our society to grow and prosper. As Piaget once said, “The principle goal of education is to create men who are capable of doing new things, not simply of repeating what other generations have
done; men and women who are creative, inventive and discoverers” (Piaget, as cited in Duckworth, 1964). The 21st Century Model for Teaching and Learning and Educational Change can be used as a guide for educational change in primary schools to strive to meet the needs of all learners (Evanshen, 2010).

Summary

There is ample evidence supporting nontraditional, developmentally appropriate, constructivist learning environments. A great deal of research conducted over the last century has found that children need active learning experiences in order to gain and retain knowledge (Bronfenbrenner, 1972; Brooks & Brooks, 1999; Carter, 2008; Dewey, 1998; Leong & Bodrova, 2001; Piaget, 1953; Stewart & Evans, 1997; Vygotsky, 1978). Children need opportunities for investigation, social interaction, and higher-order thinking in order to become fully capable citizens. Current research asserts that an environment based on constructivist teaching practices provides meaningful, activity-based experiences for all learners (Bredekamp & Copple, 1997; Brumbaugh, 2008; Burts et al., 1990; Cadwell, 1997, 2002; Carter, 2008; Charlesworth, 1998; Cunningham, 2006; Jones & Gullo, 1999; Lubeck, 1998; Szente & Hoot, 2002). Chapter 3 describes the methods and procedures used throughout this qualitative study.
CHAPTER 3

METHODOLOGY

Research Method

Rationale for a Qualitative Design

A qualitative design was chosen in order to effectively represent the teacher’s beliefs in regard to the learning environment based on his responses to the interview questions. According to Fraenkal and Wallen (2008), “Researchers wishing to obtain a holistic impression of teaching and learning should consider utilizing the qualitative research method as it provides a more complete picture of what goes on in a particular classroom or school” (p. 421). This phenomenological study focused on one participant’s attitudes and beliefs in regard to a pretransformation and posttransformation environment. This is a descriptive phenomenological study, meaning it is focused on the description of what a teacher experienced with regard to the physical transformation of a classroom and the perceived effect this transformation had on the day-to-day teaching practice. Due to the researcher’s interest in documenting a teacher’s perception of the physical changes and transformation of a classroom environment, a qualitative design was chosen.

Research Questions

The purpose of this study was to gain insight into a third grade teacher’s attitudes and beliefs in regard to the third grade classroom environment both pretransformation and posttransformation based on the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010). A review of the literature found a classroom based on developmentally appropriate, constructivist principles yielded greater outcomes for students as well as increased satisfaction in regard to professional practice due in part to the likelihood that
students were engaged in richer interactions with both the teacher and peers resulting in decreased behavior problems and increased engagement throughout the learning process. The researcher questioned whether the teacher’s attitudes and beliefs regarding the classroom environment differed in relation to the design of the environment pretransformation and posttransformation. In addition, the researcher assumed the participant’s philosophy regarding the environment would align with his personal philosophy of education.

Several questions acted as a guide for the research process. The following central question served as a focal point of the study: What was the third grade teacher’s perception of the classroom environment prior to and posttransformation according to the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010)?

The following served as study subquestions:

1. Does the teacher demonstrate an increased level of support or enthusiasm for the role the environment plays in the teaching and learning process?
2. How does the environmental design impact teaching and learning?
3. What role does the environment play in developing a classroom community that engages the learner?
4. In what ways does the environmental design enhance or transform the academic approach?

Research Design

Through interview, archival photographs, and observation, the researcher sought to obtain information in regard to the use of the classroom environment in relation to best practices in early childhood. The initial interview was intended to gain insight into the participant’s attitudes and beliefs in regard to the classroom prior to a transformation based on the contents of
21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010). The use of archival photographs aided in the elicitation of responses in reference to various aspects of the environment as well as reflection regarding the environment and professional practice.

The second interview focused on the teacher’s attitudes and beliefs in relation to his classroom environment after transformation based on principles of Evanshen’s (2010) 21st Century Model for Teaching and Learning and Educational Change and encouraged self-reflection in regard to professional practice. Observational techniques were also implemented in the participant’s classroom in order to gather environmental information for the study. Observational data were collected and recorded in the form of field notes and photography. These observations were conducted without the presence of the teacher or students after school hours in order to avoid disrupting the daily routine.

Participant

The participant was recruited by convenience. He had volunteered his classroom for an environment transformation project for an early childhood doctoral level Learning Environments course. He volunteered to participate in the study and was willing to allow the researcher access to his classroom. The participant was informed of the purpose of the study prior to implementation. He was also interested in learning more about effective primary classroom environments in an effort to make a contribution to the field of education. The participant was 37 years old at the time of the study. He is Caucasian and rated his SES as middle-class. He holds a BA in English and Philosophy and an MEd in Early Childhood Education and has 6 years of teaching experience at the preschool level. The participant was in his 2nd year of teaching third grade at the time of this study.
Research Setting

School A is located in the Tri-Cities region of Northeast Tennessee with a community population of approximately 55,469 residents (of which approximately 11.01% are under 10 years of age). The 2000 Census reported a racial composition of 90.1% Caucasian, 6.4% African-American, and 2.2% as another race. There are 9,033 students within the school district of School A with 44% receiving reducing free or reduced lunch. The student-teacher ratio is 17:1. School A has a student population of 533 and includes grades kindergarten through 12th grade. Twenty children (7 boys, 13 girls) were enrolled in the participant’s classroom at the time of the study.

Instrumentation

The interview questions were categorized based on the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010) and were asked in “before” (Interview I) and “after” (Interview II) format. The three categories include: 1) physical environment; 2) engagement and classroom culture; and 3) academic approach. The first category (environment) consisted of five questions focused on the teacher’s perceptions and feelings in regard to the physical arrangement of the classroom (e.g., Can you briefly describe your feelings regarding the physical classroom environment prior to the transformation?).

Interview questions from the second category (engagement) also included five questions that focused on social interactions, discipline strategies, and classroom culture in response to the physical environment (e.g., Please describe the learning process in relation to choices.). Lastly, the third category (academic approach) included five questions each of which addressed the participant’s teaching style, assessment techniques, and impacts or benefits in relation to the physical arrangement of the classroom (e.g., Please describe student engagement in the learning
process prior to the classroom transformation). Questions were in “before” and “after” format, open-ended, and posed to gain information in regard to the teacher’s personal views in relation to the physical environment and the teaching and learning process (Appendixes B and C).

The implementation of face-to-face interviews demonstrates the researcher’s dedication and interest in the participant’s thoughts and ideas (Goodwin & Goodwin, 1996). Interviews conducted during the study were one-on-one in a relaxed setting. Open-ended questions were designed to allow increased opportunity for reflection and commentary. The first interview was scheduled to be in the participant’s classroom during winter break.

The second interview was scheduled approximately 1 month later and was held after school in the participant’s third grade classroom. The interview was conducted in the standing position so the participant could easily navigate throughout the room. During this interview, the researcher was able to observe the participant’s body language and to gauge his attitude regarding certain questions. The ability to observe the participant’s body language allowed the researcher to rephrase questions to elicit a response.

Archival photos (“before”) used during the interview process were taken as part of the completion of doctoral level project on learning environments. These photos were obtained from the learning environment course instructor prior to study implementation. A large poster of “before” photos was created and displayed during both interviews in order to elicit referencing and reflection. Photos were labeled (e.g., A1) for easy referencing.

The researcher conducted a 1-hour observation of the physical environment of the third grade classroom in order to document present elements of the physical classroom environment through photography. The observation was conducted after school hours without the presence of
the teacher or students. These photographs were representational of the current classroom environment.

**Description of Research**

**Data Collection**

The Institutional Review Board (IRB) at East Tennessee State University (ETSU) granted study approval prior to data collection. The aim of the IRB is to protect the rights and well-being of human subjects involved in research. Additionally, prior to the implementation of the study, the researcher met with the participant in order to describe the study, answer questions, and determine a mutually agreeable schedule for observations.

The founding assumption for qualitative research is that individuals assemble their own realities through their interaction with the world. Inquiry within qualitative research focuses on the personal perceptions and meaning assigned to an experience. Inquiry is a method of gaining a rich understanding of the perspective of the participant. The qualitative researcher is the primary agent for data collection and analysis of data, yet the qualitative researcher makes every effort to remove his or her personal interpretations and biases and communicate and analyze the perceptions of the research participant (Merriam, 1998).

This study has phenomenological focus, meaning it is a study focused on the description of what a teacher experienced with regard to the physical transformation of a classroom and the perceived effect this transformation had on the day-to-day teaching practice. Husserl, a German philosopher, initially used a phenomenological approach claiming that humans can only know and understand what they experience by attending to and reflecting upon their perceptions of the experiences and meanings they have assigned to their perceptions. Phenomenologists focus on how humans make sense of their perceptions and how humans develop broader views of
themselves and their world (Patton, 2002). The primary source of data for this study was two in-depth interviews with a teacher participant who experienced a physical transformation of his third grade classroom. Secondary sources were archival photographs and observation of the current environment.

Procedures

The researcher informed the participant of the research plan during a brief meeting in the classroom after school. The participant was asked to participate in two interviews and asked to allow for observation of the physical environment of his classroom. The participant agreed and signed an informed consent document (Appendix A) indicating his willingness to participate in the study. Risks of participating in this research study were minimal. The participant did not receive compensation for his voluntary participation.

A time convenient for both the participant and researcher was scheduled for the first interview. The second interview was scheduled pending the completion of the first interview. Due to inclement weather, the initial time for the second interview was postponed and rescheduled for the following week. Upon completion of both interviews, the researcher observed the physical environment of the classroom and documented observations via photos and field notes. For study purposes, the names (i.e., school and participant) have been changed and confidentiality has been kept in high regard. Protocol of the Institutional Review Board (IRB) at East Tennessee State University was closely followed throughout the implementation of this study.

The researcher conducted two in-depth interviews with the teacher participant. These interviews allowed the participant to relate his experiences, his perspectives, and interpretation of the effect of a physical change in the classroom on his teaching practice. A series of
semistructured questions was used to guide the interview (Appendix B). Interview questions were open-ended, but each interview meeting had a clear goal. Archival photos of pretransformation and posttransformation environment were used during the interview process to elicit reflection from the participant.

The interview questions were developed by the researcher based upon the contents of the 21st Century model for Teaching and Learning and Educational Change (Evanshen, 2010). The two sets (i.e., “before” and “after” transformation) of interview questions reflected the following topics: arrangement and use of the physical environment, types of large and small group instruction, organization and type of materials, extent to which the classroom climate facilitates engagement and learning, and teacher perceptions of the extent to which physical and learning environment influences the sense of classroom community. Two interviews were scheduled with the participant. Each was audiotaped. The first interview focusing on attitudes and beliefs in regard to the environment as it was prior to the transformation that had occurred prior to the beginning of the school year lasted approximately 50 minutes. Archival photographs of the classroom prior to transformation were arranged in large poster format, displayed, and used as a reference during the first interview, which was conducted on December 29, 2009.

The second interview, focusing on the participant’s perceptions regarding the posttransformation environment, was conducted on January 22, 2010. The second interview focused on the teacher’s attitudes and beliefs regarding the transformed environment and lasted approximately 1 hour and 35 minutes. The interview was conducted in the participating teacher’s third grade classroom after school hours. The interviewer and participant completed the interview in a standing position and moved about the room to areas related to questions. A
large poster containing archival photos of the room posttransformation was displayed, to be used as a reference during the posttransformation interview.

Each interview was audiotaped and transcribed by the researcher. Using Hycner’s (1985) guide, each interview was then analyzed. The researcher generated a summary of the interview themes. These themes were e-mailed to the participant. The participant was encouraged to review the summary of the themes and to determine if the summary reflected the overall spirit of the interview. The participant was encouraged to add comments or to identify themes with which he did not agree. Although these steps were time consuming, this process of member-checking enhanced the trustworthiness of the study and minimized researcher bias.

A second data source was photographs. Archival photos were retrieved from the learning environment course instructor depicting the third grade classroom prior to the transformation, which took place in the summer of 2009, six months prior to the study implementation, in a doctoral level learning environments class as part of a class project. The researcher used photos as a guide for determining complimentary photos of the posttransformation environment (e.g., comparison of classroom entrance “before” and “after” transformation) as well as for the creation of two large posters. The posters were displayed during the interview process and used as a reference to elicit a reflection from the participant.

Lastly, an observation lasting approximately 1 hour was conducted in which the researcher recorded field notes outlining the physical elements of the classroom. Photographs were taken in order to document physical aspects of the current environment including materials, organization, and the general physical arrangement of the classroom. Neither the participant nor the students were present during the observation. No photographs were taken of the participating teacher or students.
Findings regarding the physical environment were analyzed according to the categories of the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010). Interview information was analyzed and categorized based on guidelines set forth by Hycner (1985). Themes derived from analysis of interviews were analyzed and member-checked by the participant in order to ensure reliability and trustworthiness. Findings were described in relation to consistency with best practices for primary age children.

**Validity and Reliability**

In order to ensure validity and relevance of the interview questions, the questions were reviewed by a Nationally Board Certified early childhood teacher, an early childhood professor, and a licensed school psychologist. The interview questions were revised based on the recommendations of the reviewers. Interviews were audiotaped, transcribed, and member-checked for reliability and increased trustworthiness. Once transcribed, both transcriptions were member-checked. Member-checking occurs when the participant is asked to review data and comment in order to ensure accuracy (Lincoln & Guba, 1985). The researcher and participant met in order to review the transcription for accuracy. A check of the transcriptions was conducted to in order to address any discrepancies. Only one was identified by the participant (i.e., misspelling). Each page of the transcription was initialed by the participant, which indicated his agreement. Upon review, the participant agreed that no modifications or additions were necessary. Participant approval was indicated through the initialing of each page of the transcription. Additionally, the participant signed a member-checking letter indicating his approval of the information contained within each interview (Appendix D).

The researcher sought to ensure validity through the sharing of information with the participant throughout the data analysis process. Themes developed by the researcher were e-
mailed to the participant. The participant was asked to review the summary of the themes in order to ensure accuracy. The participant was encouraged to add comments or to identify themes with which he did not agree. Upon review of the data, the participant indicated no changes or commentary were necessary.

According to Robson (1993), “to come up with trustworthy answers, the analysis has to treat the evidence fairly and without bias, and the conclusions must be compelling, not least in ruling out alternative interpretations” (p. 372). The trustworthiness, or credibility, of the research depends primarily upon the data analysis (Robson, 1993). This study is aligned with criteria outlined by Shenton (2004) and includes an important aspect of trustworthiness is the method of data collection. Methods of data collection and analysis must be derived from comparable studies that yielded success. The methods of data collection for this study included interviews, photographic documentation, and observations. Each of these methods is implemented frequently and successfully within the field of research.

Another important aspect of trustworthiness is the triangulation of data. Triangulation of data involves the implementation of at least three methods of data collection, all of which are intended to yield a similar end result. This study’s data were triangulated through interview, photographs, and observation. This procedure validates the data through cross verification from multiple sources (Shenton, 2004). It is also critical to implement tactics that will ensure honesty from participants.

According to Shenton (2004), debriefing sessions allow for increased trustworthiness as the researcher shares his or her reflections, ideas, and vision for the research study. During a debriefing session, the researcher is given the opportunity to discuss alternative approaches, to reflect, and to develop ideas. Throughout the study, several debriefing sessions took place.
between the researcher and members of the thesis committee. This allowed for feedback, questioning, and shared ideas which helped to advance the study.

Research Perspective

Background of Researcher

The researcher holds a bachelor of science degree from East Tennessee State University with a concentration in Early Childhood Education and is licensed to teach PreK-4th grade in the state of Tennessee. The researcher is currently serving as the Child Care Director of a YMCA in Northeast Tennessee. This study was part of the requirements for completion of a Master of Arts in Early Childhood Education. No previous relationship between the researcher and participant existed prior to study implementation.

Guiding Theory

The primary basis of this study was developmentally appropriate practice (DAP) as outlined by the National Association for the Education of Young Children (NAEYC). Concepts of DAP that were fundamental to the study include the following (Bredekamp & Copple, 1997):

1. Creating a caring community of learners
   a. All participants consider and contribute to each other’s well-being and learning
   b. Positive relationships between adults-children and children-children that help children to feel valued
   c. Social relationships are an important context for learning
   d. The learning environment is designed to protect children’s health and safety and is supportive of children’s needs.
   e. Children experience an organized environment and consistent routine
      i. Environment is dynamic and changing, yet predictable and comprehensible
ii. Learning environment provides a variety of materials and opportunities for children to have meaningful experiences

2. Teaching to enhance development and learning
   a. Teacher respects, values, and accepts children and treats them with dignity
   b. Teacher creates an intellectually engaging, responsive environment to promote learning and development
   c. Teacher creates opportunities for children’s collaboration with peers
   d. Teacher facilitates the development of responsibility and self-regulation

Throughout the study, the researcher used the principles of DAP as well as theories of child development as a guide for the research. These principles enabled the researcher to identify developmentally appropriate aspects of the physical and learning environment within the third grade classroom. The theories of such child development authorities as John Dewey (1998) and Urie Bronfenbrenner (1972) also served as a guide throughout the study.

Dewey’s (1998) progressive education challenged educators to bring such aspects of learning as social interaction, inquiry, construction, reflection, and creative expression to the forefront of their teaching practice. Bronfennbrenner’s (1972) ecological systems theory outlined the interaction between human beings and the physical and social environments in which they develop. The Reggio Emilia Approach also aided in understanding the role of the environment in the learning process (Cadwell, 2002).

Summary

Chapter 3 outlined the methodology, description of the research, and summary. Interviews (Appendixes B & C) were designed to identify the beliefs and attitudes of a third grade teacher in relation to the learning environment. Data collection included interview
responses, archival photographs, and observation of the current classroom environment. Chapter 4 includes the results obtained from the data including teacher responses and photo analysis in an effort to answer the research questions.
CHAPTER 4
DATA ANALYSIS

Purpose of the Study

Chapter 4 provides a presentation and analysis of data collected through interviews, photographs, and observation. The purpose of the qualitative study was to examine an elementary teacher’s attitudes and beliefs in regard to the physical arrangement of the classroom environment prior and post classroom transformation based on principles of the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010). It was the goal of the researcher to investigate and describe one teacher’s perspective of best practices in relation to the physical classroom environment. The researcher was specifically interested in evidence of a correspondence between personal belief and values and the day-to-day practice of teaching.

Data

The process of data analysis included: 1) data from the first interview regarding teacher perception and attitude of the environment in “before” photos was summarized; and 2) data from the second interview regarding teacher perception and attitude of the environment in “after” photos was summarized; 3) data collected from both interviews were analyzed and categorized according to the components of the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010); and 4) data about physical environment captured in photos and narrative description from observations were analyzed and categorized according to concepts of the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010). Findings were described in relation to consistency with best practices for primary age children.

Once all data were collected, the researcher began analyzing the data. Hycner (1985) states, “unlike other methodologies, interview data cannot be reduced to a ‘cookbook’ set of
instructions. It is more an approach, an attitude, an investigative posture with a certain set of goals” (p. 279). With this in mind, the researcher attempted to approach the interview data with the mindset that meaning must emerge from the data, rather than sought out of data. To begin analyzing, the researcher inserted line numbering into the transcription documents and increased the margins to provide space for writing. The researcher then reread the transcriptions while listening to the audio several times in order to document any sounds, gestures, or emotions that were not captured within the first transcription. Several additions were made to the transcription, that included laughing, deep sighing, pauses, “ummm”, and background noises. The process provided context to the data as well as nonverbal information not provided by the hard data that aided in the emergence of units of meaning or themes later in the analysis process (Hycner, 1985).

The researcher then recorded personal perceptions regarding the interview data within the large margins of the document. This was done in an attempt to clear the thoughts and perceptions from the mind in order to truly focus on the words, feelings, and meanings of the participant that is aligned with the next step of interview data analysis (Hycner, 1985). According to Hycner (1985) one must eliminate personal bias from data analysis and attempt to elicit the true meaning of the data. In order to do this, one must rid himself or herself of presuppositions that may be present. At this point, the researcher met with a member of the thesis committee in order to orally share personal perceptions of the participant’s answers as well as to gain information regarding the next stage of data analysis. According to Shenton (2004) the debriefing process helps to ensure trustworthiness as the researcher shares his or her research experiences in order to gain further guidance. This also provides an opportunity for reflection and the recognition of biases related to the research (Shenton, 2004). Upon completion of this
process (i.e., written and oral reflection), the PI felt prepared to move to the next step of data analysis.

Next, the researcher read through the transcription (including contextual factors and personal reflections) in order to gather meaning and search for themes within the interview data. This was done without referencing and addressing the research questions in an attempt to gather the true “essence” (Hycner, 1985) of the participant’s words. Upon reading each line, the researcher attempted to label the content of the participant’s answers with a theme or meaning by reading each line of the transcriptions individually (e.g., Line 14: Interview I primarily addressed the role of environment and was therefore labeled “environment”).

After labeling each line of the transcriptions, the researcher categorized the data into core units of meaning. The main themes that emerged from the interview responses to the questions during Interview I and Interview II included: design of physical environment, effect of classroom organization, teaching and learning, student choices in learning process, assessment, discipline, classroom community and social interactions, personal practice and reflection, and transitions. These units of meaning or themes were applicable to both the pretransformation and posttransformation classrooms and emerged as a result of the rigorous process of data analysis.

Data were categorized based on the interview questions and the core units of meaning that emerged from the data analysis process. Both archival and observational photographs of the pre- and posttransformation environment used throughout the study were analyzed based on principles of the 21st Century Model of Teaching and Learning (Evanshen, 2010). The triangulation of data resulted in the following data analysis:
Interview Question #1

Please describe the physical arrangement of your classroom. The responses derived from the transcription that related to this open-ended question include:

Pretransformation.

1. “That was a plus of the traditional style; I didn’t use it in a traditional way” (#14, 15: Interview I).

2. “There is a grade when they’re going to be here (refers to picture #2d of rows of desks). Personally, I don’t care when it happens. It’s going to come with instruction” (#20, 21, 24, 25: Interview I).

3. “There was very little space in the classroom (#47: Interview I). So we ended up with a very traditional style classroom. There were rows…almost amphitheatre style, but they were rows. Left to right so there was a central point rather than a whole front of the room being the whole focal point. We used it non-traditionally most of the time, although it was a traditional style” (#53-58: Interview I).

4. “They [students] were very free and wanted to be up walking around…having that traditional environment for that class was probably beneficial for them to stop and smell the coffee. So getting them to sit down and focus was helpful (#148-151: Interview I). With the current class, that environment would have the opposite effect. They’re such a constructive and motivated group” (#153, 154: Interview I).

5. “The environment was not ideal due to space” (#168: Interview I).

6. “It was mainstream. It was a management tool. It was the only way to be environmentally effective and manage. It wouldn’t be my first choice for most classes. I would not do that. It was effective for what was going on then” (#268-271: Interview I).

Posttransformation.

1. “They [current students] are such a constructive and motivated group. Not haphazard. Not randomly wandering. They probably are much more in need of an environment which is open so they can see each other and is conducive to eye contact” (#154-157: Interview I).

3. “The space the way it is, even if I go back to a more behaviorist or traditional set-up, will make it an even better environment…It will be a lot easier to set things up; either traditionally or constructivist” (#276-280: Interview I).

4. “It’s a much more open environment, whereas the previous environment was very closed” (#40, 41: Interview II).

5. “This is a small classroom…the only place where it’s really tight is the rug. It’s rather small for meetings” (#48-50: Interview II).

6. “I still have a little chaos in some places, but the actual classroom is space where we work. It’s useful now” (#78-80: Interview II).

7. “I am getting used to the environment now. Maybe next year I will utilize the environment and the centers more” (#189-191: Interview II).

8. “You might start with a more behaviorist model at the beginning of the year because you’re not sure what you’ll get” (#200-202: Interview II).

Analysis. Based on the pretransformation interview responses, the researcher noted the participant viewed the space limitation of the classroom as an initial challenge. He described the classroom design as “traditional” and “not ideal.” Upon careful analysis, the researcher found a common theme of environmental design among the responses linked to the first interview question. The participant also shared his belief the classroom plays a vital role in the learning process and can be used as a tool for teaching, learning, and behavior management.

The responses from the participant demonstrate the use of a traditional style of teaching prior to the transformation. It is noted through ambiguous language during the postinterview that the participant is experiencing a state of disequilibrium in which he has assimilated new information, but has not yet accommodated the new knowledge into his teaching practice. Based on the participant’s responses, one can assume he is making attempts to incorporate constructivist pedagogy into his practice.

Photo Documentation. The photos on the subsequent page were used during the interview process as a means of eliciting reflection from the participant. The photos are
representative of the environmental design both pretransformation and posttransformation. According to Evanshen (2010) the traditional classroom environment design leads to passive learning from students as the teacher is the center of attention. Figure 1. illustrates this belief. The rows of desks are arranged in such a way that the teacher is the focus of the classroom during instructional time.

Figure 2. illustrates a classroom transformed according to principles of the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010) that offers opportunities through the physical design for cooperation, seating choices, and group work as part of the learning process. This allows students to gain communication skills, problem-solve, share ideas and information, and learn cooperation and collaboration, all of which are necessary skills for success in the 21st century (Schmidt, 2004). Evanshen (2010) asserts the environment is the foundation of learning. An environment rich in brain-compatible elements, seating options, choices, and movement is ideal for learning. Figure 3. illustrates the adaptations to the environment that were made by the participant after the initial transformation. The key principles (e.g., group seating, choices, etc.) of Evanshen’s (2010) model were maintained.

**Interview question #1: Please describe the physical arrangement of your classroom.**

Figure 1. Physical Before

Figure 2. Physical After

Figure 3. Current Physical
Interview Question #2

How were materials organized prior to transformation and how are materials organized now? The responses derived from the transcription that related to this open-ended question are listed below:

Pretransformation.

1. “I couldn’t find things I wanted for them very easily. And so…it was less [difficult] for the kids than it was for me. They may not be able to find what they want here (points to shelf), but they could find something of interest” (#90-93: Interview I).

2. “I hated the mess. I could never get a handle on it” (#283: Interview I).


4. “Photo 1i (photo of books stacked on shelf) shows how the books were organized…organized in the sense that they were standing on a shelf. No leveling or anything else. The thing I could never get a handle on. So many books and trying to get them into categories” (#316-319: Interview I).

5. “I had shelves dedicated to certain things, but I think because of the space and the amount of things in the room and the class of kids being about as organizationally dysfunctional as me (laughs), we all just made a mess” (#125-128: Interview II).

6. “Things had shelves, but weren’t in their places necessarily” (#129, 130: Interview II).

Posttransformation.

1. “I think I prefer the current set-up because of the organization that it allows” (#190, 191: Interview I).

2. “The kids are really good about putting things back where they found it. We went over that at the beginning of the year (#114, 115: Interview II). It’s pretty much a ‘put it back where you got it’ thing” (#118, 119: Interview II).

3. “When things are organized, make sense, and logical, then the kids are able to put it back” (#119-121: Interview II).

4. “It’s all [materials] very dedicated to the subject area now. That helps” (#132, 133: Interview II).
5. “The management is a huge factor. We can get things done faster. Certainly, having things dedicated to a particular place has helped” (#350-352: Interview II).

6. “The organization has been tremendous. It really helps out when things are where they need to be” (#367-369: Interview II).

7. “Right now, it takes one minute to find things. Everybody helps out. That is tremendous. Time is valuable” (#429, 430: Interview II).

Analysis. The unifying theme of the responses regarding question 2 was found to be classroom organization. The participant’s support for the posttransformation environment is obvious in his responses that indicate his enthusiasm for degree of organization within the transformed classroom. The lack of organization in the pretransformation environment led to a sense of “chaos” and left the teacher feeling as though the environment were “out of hand.” Whereas, in the posttransformation interview, the environment is described as “logical” and “organized,” which allows for more adequate use of teaching time and encourages learners to make choices and independently use the materials within the classroom.

Photo Documentation. The photos on the subsequent page were displayed during the interview process and are representative of the classroom environment both pretransformation and posttransformation. Figure 7. shows the organization in the classroom prior to the transformation. According to the participant the organization within the pretransformation environment was “organized chaos” that he could “never get a handle on.” Figure 8. demonstrates the use of natural textures and covered storage to maintain organization within a classroom environment transformed according to the 21st Century Model (Evanshen, 2010).

Figure 9. illustrates the adaptations to the environment that were made by the participant after the initial transformation. The key provisions (e.g., clear containers, labels, etc.) of the transformation based on Evanshen’s (2010) model were maintained. Notice that all materials are
held within clear containers (for visibility), the shelving is painted a neutral color, and materials are within reach of the children. Creating a classroom that allows for independent learning by students (e.g., finding, exploring, and returning materials) is an essential element of a developmentally appropriate classroom (Bredekamp & Copple, 1997).

**Interview question #2: How were materials organized and how are they organized now?**

![Figure 4. Materials Before](image1)

![Figure 5. Materials After](image2)

![Figure 6. Current Materials](image3)

**Interview Question #3**

Describe your teaching style and methods. The participant’s responses that related to this open-ended question are outlined below:

**Pretransformation.**

1. “Most of the social studies and science were more [teacher] directed (#127, 128: Interview I).

2. (concerning interactions) “I think that’s where the traditional set-up worked better, when we did the group work they would come around and sit behind the desks. So you had a desk that was 20 inches wide and that was the distance between the kids” (#135-138: Interview I).

3. “Was it the best or ideal situation? By far, no, but it worked out. We learned a lot” (#171, 172: Interview I).

4. “We did a lot more whole group instruction” (#201: Interview I).

5. “That class was well-engaged in whatever was going on. I maintained correct classroom instruction” (#252-253: Interview I).

Posttransformation.

1. “I got away from doing the whole-group instruction from the desks. We get down on the rug (#15, 16: Interview II). I realized it’s a lot easier to do whole group instruction there” (#19, 20: Interview II).

2. “I only have three kids that are struggling. Two are almost on grade level and one is not. So I work with that child individually each day” (#244-246: Interview I).

3. “I think the current class would be distracted by such focus [as before]…that traditional style would be too much for them” (#255-257: Interview I).

4. “They’re only seven or eight feet away from the teacher, and they’re hearing everything you’re saying” (#262, 263: Interview I).

5. “It’s very open” (#189: Interview II).

6. “It’s very conducive to learning. I think my kids last year did fine, but I think these guys are more free to determine their own learning. They’re able to be free and open. I think the more free you are with kids, if they can handle it, then they are able to manage themselves. They’re going to learn more like that. They’re more directed to learn on their own” (#252-258: Interview II).

7. “It [environment] has affected my teaching style. The open environment allows me to do more one-on-one. That’s less direct instruction. Less of sitting in their desks watching me. It’s more open, and they can see me. That has changed things” (#280-283: Interview I).

8. “I’m looking at changing my daily model so it’s more of a centered approach to reading. That way, I’ll be able to actually sit down and work directly on some things and see how they’re doing. That part of the environment makes that better” (#312-316: Interview I).

9. “Most of the work is small group…that’s how they’re learning. They’re going through the exploration process. Projects” (#326-329: Interview II).

Analysis. The common theme linked to responses to question 3 was found to be teaching and learning. The participant stated, “It [environment] has affected my teaching style. The open environment allows me to do more one-on-one. That’s less direct instruction [referring to whole group]. Less of sitting in their desks watching me. It’s more open, and they can see me. That
has changed things” (#280-283: Interview I). He now implements less whole group direct instruction in favor of a more child-centered approach to teaching and learning that includes small group and individual instruction. Each of the statements represents a shift from a direct instruction, traditional approach to teaching and learning to a more child-centered approach based on principles of constructivist practice such as interactions with others and objects within the environment.

Prior to the transformation, the environment did not allow for small group work, one-on-one interaction, or rug work. Once the environment was decluttered, a variety of work spaces were created that allow for small groups, learning centers, one-on-one instruction, and rug work. According to Evanshen (2010) this type of environment enhances social, emotional, and academic development as children take responsibility for their learning in a variety of ways including self-reflection, group projects, and quality interactions with the teacher.

**Photo Documentation.** The photos on the subsequent page show the class meeting or rug work area both pretransformation and posttransformation. In Figure 12., group work was not a part of the daily schedule. Much of the instruction was conducted as a whole group with students seated in rows at table desks. This is due in part to the limited amount of rug space due to the clutter. Figures 13. and 14. demonstrate the classroom after being transformed to be consistent with the principles of Evanshen’s (2010) 21st Century Model for Teaching and Learning and Educational Change. The removal of unnecessary materials allows for an enriched environment, one that is flexible and inviting to learners. The open rug area provides seating options, movement opportunities, and learning choices (Evanshen, 2010). The environmental change has altered the participant’s teaching style. The statement, “The other thing I got away from is doing the whole-group instruction from the desks. We get down on the rug…It’s a lot
“easier” demonstrates the shift from a traditional teaching style to a more nontraditional approach to teaching and learning that incorporates freedom to move and interact and problem-solve with one another.

**Interview question #3: Describe your teaching style and methods.**

![Figure 7. Teaching Before](image1)  ![Figure 8. Teaching After](image2)  ![Figure 9. Current Teaching](image3)

**Interview Question #4**

Describe the learning process in relation to choices. The responses derived from the transcription that relate to this question are listed below:

**Pretransformation.**

1. “We didn’t do centers everyday, so that wasn’t something we did” (#124, 125: Interview I).

2. “As far as directing the learning goes, most of the social studies and science were more directed” (#126-128: Interview I).

3. “In social studies they did a lot of group activities where the group decided what they want to do...so there was lots of choice in that. That was one of the highlights of last year; having that come out” (#128-132: Interview I).

**Posttransformation.**

1. “Things [materials] are introduced, put on the shelf, and they [students] explore them” (#142, 143: Interview II).

2. “When we do centers, I let them make that choice” (#183: Interview II).

3. “They have free choice” (#185: Interview II).
4. “During center time, they have freedom to get those things out. To explore them. And they do” (#139, 140: Interview II).

Analysis. The common theme derived from the aforementioned statements is student choices in the learning process. Prior to the transformation centers were not implemented as part of daily practice. Learning was more teacher-directed. In the posttransformation environment, learning centers are incorporated into the daily schedule, students are given the opportunity to choose which center materials to explore, and appropriate use of materials is modeled by the teacher. In a developmentally appropriate environment, children have opportunities to make choices in regard to their own learning, are actively involved in the exploration of materials, and engage in reflection (Evanshen, 2010).

Photo Documentation.

Figure 10. below illustrates the science center prior to the transformation. According to the participant the science center was more “directed” by the teacher. In the current posttransformation environment (Figure 16.), students are given freedom to “explore” the materials. An environmental design based on principles of constructivist practice (Evanshen, 2010) yields active learning experiences, choices, and reflection. Additionally, subjects are integrated as children implement critical-thinking strategies while participating in well-planned experiences with concrete materials.

Interview question #4: Describe the learning process in relation to choices.

Figure 10. Choices Before
Figure 11. Current Choices
**Interview Question #5**

What were your assessment techniques and what are they now? The responses within the transcription which related to this open-ended question are listed below:

**Pretransformation.**

1. “They did well on TCAPS, we came out ok (#84: Interview I). That made me feel really good because I felt like it was chaos all the time” (#86, 87: Interview I).

2. “Last year we did worksheets and then the kids took the worksheet and I’d have twenty kids turning in papers and only eight would have their worksheet” (#232-235: Interview I).

3. “It was very chaotic before. I had one journal, and they used it for everything. It was all very chaotic” (#287-289: Interview II).

**Posttransformation.**

1. “Now, instead of wondering where the social studies work is, everybody has a social studies journal and they take the journal, and record everything they’re doing that day. So that’s been really helpful, and I do it for everything” (#213-216: Interview I).

2. “Now, we actually have bins just for journals” (#220: Interview I).

3. “Another thing about this environment that’s helpful; I’m really able to go around while they’re working and see what they’re doing. Because I can get everywhere” (#293-295: Interview II).

**Analysis.** The common unit of meaning related to question 5 was determined to be assessment approach. In these responses, the participant described the assessment process he implemented in the pretransformation environment in comparison to the environment that was transformed based on principles of the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010). In the environment prior to transformation the participant relied primarily upon standardized assessments (e.g., worksheets) to gauge student understanding.
After the transformation, the environment allowed for more one-on-one interaction with students, small group projects, and reflective journals for each subject. The previously implemented assessment technique was formal (traditional), whereas the assessment in the posttransformation environment includes both formal and informal assessment (observations, projects, journaling, documentation of the learning process, etc.). This practice is directly aligned with a more developmentally appropriate approach of assessment (Bredekamp & Copple, 1997).

**Photo Documentation.** The photos on the subsequent page illustrate the peripherals that serve as a form of informal, on-going assessment in the environment prior to transformation and posttransformation. The peripherals before transformation (Figure 12.) are commercially bought and do not represent or advance the learning process. Figure 13. demonstrates the provision of bulletin board and wall space for displaying student-made peripherals. In contrast to the pretransformation peripherals, Figure 14. is a direct demonstration of the learning that is occurring in the classroom. Student and teacher-made peripherals are meaningful and appropriate for all learners within the classroom community as they are directly aligned with the learning that occurs daily. These types of assessment provide teachers with a more accurate representation of knowledge in comparison with standardized, paper-based assessments (Evanshen, 2010).

According to Evanshen (2010) “When the content is meaningful, the instruction integrated, individuals’ needs incorporated into curriculum planning and assessment drives instruction, a change in the environment becomes visible. The walls paint a picture of what the students are coming to know through their active learning experiences” (p. 20). This statement is applicable to the posttransformation environment with walls covered in student-made peripherals.
linked to learning. As assessment becomes varied and individualized, it can then be used to drive instruction. When teachers are knowledgeable of students’ individual learning needs, instruction becomes appropriate and meaningful for all learners (Evanshen, 2010).

Interview question #5: What were and are now your assessment techniques?

Figure 12. Assessment Before     Figure 13. Assessment After     Figure 14. Current Assessment

Interview Question #6

What was your discipline technique prior to the transformation and what is it now? The responses derived from the transcription which focus on this open-ended question are outlined below:

Pretransformation

1. “I had a very management heavy class, and I used checks like my teachers used. It’s a much more behaviorist system” (#100-101: Interview I)

2. “I started with a plain old checklist, which was you get your name on the board and that’s your warning. Your first check is five minutes off recess, which is very traditional (#106-108: Interview I). That way, anybody that keeps themselves on the straight and narrow is ok. It wasn’t fair to take [everyone’s] recess” (#112, 113: Interview I).

3. “That class had to have that behaviorist thing (#310, 311: Interview I). They’d sit down, think about reading for about a minute, read, come back and act like they were reading, go to the bathroom, come back…” (#314-316: Interview I).
Posttransformation.

1. “It [discipline] changes with the class. Now I’ll write names on the board, but I don’t actually have punitive action” (#168, 169: Interview II).

2. “I actually still am using that [checklist] now, but I don’t actually enforce anything with it. It’s more of a ‘let you know how you’re doing right now’ thing” (#101-104: Interview I)

Analysis. A common theme that emerged from the responses to question 6 was found to be classroom management and discipline. The use of a checklist and charts in the posttransformation environment was indicative of the participant’s belief that a behaviorist management system was not only necessary but effective. Traditional classroom discipline is based on extrinsic motivation such as stars, prizes, and charts. In this type of environment teachers implement strategies to condition student responses to rewards and punishments (Skinner, 1991) rather than promoting intrinsic motivation to learn.

Upon transformation of the environment, the behavior management charts and procedures were no longer implemented or visible. This physical evidence implies a possible shift from a traditional classroom management approach to a more nontraditional, constructivist-based approach of classroom management allowing children opportunities to self-regulate and problem-solve with one another. With a nontraditional approach the teacher strives to aid students in the development of intrinsic motivation by involving students in the process of planning classroom rules and procedures (Evanshen, 2010).

Photo Documentation. The photos on the subsequent page exhibit one discipline technique implemented by the participating teacher prior to the transformation. Figure 15. is evidence of a more behaviorist approach to classroom discipline. According to the participant, “That class had to have that behaviorist thing….it was the same kids walking out of the room
three times during reading. They’d sit down…act like they were reading, go the bathroom, come back…go to the bathroom” (#310, 316: Interview I).

As documented in field notes, in the transformed environment, appropriate behavior was determined and is maintained based on students’ beliefs about classroom behavior and management. Figure 16. shows a contract of rules written and signed by the class at the beginning of the school year. It reads, “Respectful. Safe. Responsible.” Allowing and encouraging students to take part in the development of classroom procedures gives them ownership and responsibility that promote intrinsic motivation and builds a sense of classroom community (Evanshen, 2010).

Interview question #6: What was your discipline technique and what is it now?

Figure 15. Discipline Before             Figure 16. Current Discipline

Interview Question #7

What types of interactions occurred in the pretransformation environment and what types occur now? The responses derived from the transcription that related to this open-ended question are outlined on the subsequent page.

Pretransformation.

1. “The student-to-student interactions were kept somewhat to a minimum with proper zoning and spacing because the kids would get off in their own world” (#175-177: Interview I).
2. “Before, with the more traditional style, the backs were to one another. They [students] couldn’t see each other” (#236-238: Interview I).

3. “It was difficult for the teachers to interact with the kids. It was very prohibitive in that environment when trying to be accessible to all the kids” (#140-143: Interview I).

4. “Although appropriate and we did plenty of it, it was hard because you were stepping or tripping on somebody” (#143, 144: Interview I).

5. “They needed buffers where they didn’t have three kids that could distract them. Even one was too much. They needed to have less interaction” (#216-218: Interview II).

Posttransformation.

1. “The kids are more apt to socialize and that’s one really nice aspect…” (#178, 179: Interview I).

2. “It’s much more social” (#198: Interview I).

3. “You might begin with a more behaviorist model, and then as you see how they handle it, you would move toward a constructivist model which allows more social interaction and more peer collaboration” (#207-210: Interview II).


5. “There’s a sense of togetherness and openness” (#229, 230: Interview II).

6. “It’s so much more open like this. Everybody can see everybody and know what’s going on. It’s much better” (#238-239: Interview II).

7. “There’s much more direct interaction. I can get there quickly. It’s faster. I can just walk over. It’s much better” (#265-267: Interview II).


Analysis. The common units of meaning that emerged from the participant’s responses to question 7 were classroom community and social interactions. Classroom culture is a key element of the engagement tier of Evanshen’s (2010) model that asserts an organized, well-planned classroom environment increases and enhances social, emotional, and academic growth.
though quality interactions with the people and materials in the classroom. After undergoing a transformation based on Evanshen’s (2010) model, the participating teacher experienced a change in the type of student-to-student and teacher-to-students interactions occurring in the third grade classroom.

Prior to the transformation, “The student-to-student interactions were kept somewhat to a minimum with proper zoning and spacing…” (#175-177: Interview I). Whereas after the transformation, “It’s so much more open like this. Everybody can see everybody and know what’s going on. It’s much better” (#238-239: Interview II). This demonstrates a shift from a more traditional approach to education in which work was done in isolation with minimal interaction between peers and between students and the teacher to a more nontraditional and constructivist-based environment where cooperation and collaboration help to build a sense of classroom community as evidenced in the following responses: “It’s much more social” (#198: Interview I), “It [classroom] fosters a sense of classroom community” (#223: Interview II), and “It’s quality interaction” (#273: Interview II).

**Photo Documentation.** The photos on the subsequent page are representative of the classroom community and social interactions in the pre- and posttransformation environment of a third grade classroom. Figure 17. represents limited social interaction between students. Rows of desks prevented interactions. According to the participant, “It was difficult for the teachers to interact with the kids. It was very prohibitive in that environment when trying to be accessible to all the kids” (#140-143: Interview I). This type of traditional environment limits the quality and amount of student interaction and inhibits the sense of classroom community.

According to Schmidt (2004) children of the 21st century require skills such as critical-thinking, problem-solving, communication and collaboration, social and cross-cultural
interaction skills, and productivity in order to be successful and productive citizens. According to Evanshen (2010), these skills can be developed and enhanced through the provision of a classroom environment that allows students to work collaboratively with peers in small groups or pairs, as well as individually with the teacher. By doing this, students will learn to understand, accept, and embrace the unique ideas and viewpoints of others while demonstrating their own strengths.

Evanshen (2010) asserts, “If we transform our environments to better engage and enhance our teaching and learning we create learning communities. In these communities, we can assist children in becoming responsible learners, ready and open to the many learning and life experiences to come” (p. 21). A sense of classroom community is developed when students experience quality interactions with peers and adults in the classroom. These principles are evident in the photos (Figures 18. and 19.) of the classroom environment posttransformation.

**Interview Question #7: What types of interactions occurred prior to transformation and what types now occur?**

![Figure 17. Interactions Before](image1.png) ![Figure 18. Interactions After](image2.png) ![Figure 19. Current Interactions](image3.png)

**Interview Question #8**

How has the transformation impacted or benefited you as a professional? The responses found within the transcription that related to this open-ended question are outlined below:
**Pretransformation.**

1. “It was hard for me to do my job in that class” (#96, 97: Interview I).

2. “The environment, although not ideal, was fostered by my teaching. My strength as a teacher is my kids know how much I care about them, and if your teacher cares about you, you’re more willing to learn” (#163-166: Interview I).

3. “It was very hard to come into someone else’s environment that was very restrictive with so much stuff and be a new third grade teacher and try to figure out how to do anything in that environment” (380-383: Interview II).

**Posttransformation classroom.**

1. (referring to feelings toward environment) “It’s much more pleasant” (#78: Interview II).

2. “Being a preschool teacher for five years, I’ve always taken pride in my environment. Doing a good job to make it the third teacher” (#377-378: Interview II).

3. “It [transformation] showed us [teachers] that our principal was willing to invest in the environment” (#416, 417: Interview II).

4. “My philosophy was aligned with the change. I just didn’t have the means. So it’s impacted tremendously the way I can teach” (#424-426: Interview II).

**Analysis.** A common theme related to question 8 was environmental impact on personal practice and reflection. In his responses to question 8, the participant reflected and shared in regard to his feelings concerning the pretransformation and posttransformation environment and those feelings affected his professional practice. According to Evanshen (2010) a transformation based on the 21st Century Model for Teaching and Learning and Educational Change requires a shift in thought for most traditional teachers. Prior to the transformation the participant stated, “It was hard for me to do my job in that class” (#96, 97: Interview I). As noted in his responses as previously discussed, the participant’s attitudes and practice in the pretransformation interview were more aligned with a traditional approach. He stated, “It was a management tool” (#268: Interview I), “We did a lot more whole group instruction” (#201: Interview I), “That
class had to have that behaviorist thing” (#310: Interview I), and “The student-to-student interactions were kept somewhat to a minimum with proper zoning and spacing because the kids would get off in their own world” (#175-177: Interview I).

After the transformation, in spite of the participant’s more traditional attitudes pretransformation, the environment has led him to be more developmentally appropriate posttransformation. His feelings concerning the environment’s impact on teaching and learning were clear in the statement, “My philosophy was aligned with the change. I just didn’t have the means. So it’s impacted tremendously the way I can teach” (#424-426: Interview II) and “It’s very conducive to learning. I think my kids last year did fine, but I think these guys are more free to determine their own learning. They’re able to be free and open. I think the more free you are with kids, if they can handle it, then they are able to manage themselves. They’re going to learn more like that. They’re more directed to learn on their own” (#252-258: Interview II).

Shifting from a traditional to a nontraditional and more constructivist design can be challenging for some educators; therefore, it is important to begin with environmental changes and connect those changes to student outcomes (Evanshen, 2010). The participant was willing and open to change and has maintained the environment since the transformation, making minor changes to fit his personal needs and those of the current students. In order for a quality learning environment to be sustained, the culture and climate of the transformed classroom must be consistently reinforced and maintained (Evanshen, 2010). In addition to interview responses, after and current photos of the environment after and current are representational of an environment that aligned with principles of nontraditional, constructivist practice.

**Photo Documentation.** The photos on the subsequent page are indicative of the classroom prior to and posttransformation. At the time of the transformation, the participant was
a first-year third grade teacher who inherited a great deal of materials from the previous teacher. The participant stated, “It was very hard to come into someone else’s environment that was very restrictive with so much stuff and be a new third grade teacher and try to figure out how to do anything in that environment” (380-383: Interview II). Figure 20. shows the classroom entrance that was cluttered with unused materials and behavior management charts. During the transformation process, the materials that were not needed were removed from the classroom and replaced with materials that were meaningful to both the teacher and students.

According to Evanshen’s (2010) model the creation of a welcoming classroom absent of threat aids in the creation of a positive classroom climate. The classroom entrance prior to the transformation conveyed an unclear message to those who were entering. Figures 21. and 22. demonstrate the environment after the transformation. In the posttransformation environment student photos, warm tones, live plants, a family information board, and a suggestion box give students and the teacher a sense of ownership and comfort while inviting visitors into the room. The transformational changes created a welcoming and relaxed learning atmosphere for all who entered.

**Interview question #8:** How has the transformation impacted or benefited you as a professional?

Figure 20. Professional Before  Figure 21. Professional After  Figure 22. Current Professional
Emerging Theme

Throughout the data analysis process a theme emerged from the responses to the questions. Although no interview questions were asked that related specifically to transitions, transitions became a common theme throughout the content of the interview.

Pretransformation.

2. “It was very prohibitive. You couldn’t get around at all. It was very tedious” (#65, 66: Interview II).

3. “I spent more time waiting for them to get up and get out of their desk to try to find things during the day” (#85-87: Interview II).

Posttransformation.

1. “The arrangement now really helps in transition of activities. The kids are spread out” (#27, 28: Interview II).

2. “Before, it was hard for the kids to get around, to transition. Everybody had to wait. Everybody was just trying to get out and up. Now there’s room for the kids to move around the room” (#36-39: Interview II).

3. “The environment is conducive to speeding up transitions” (#87, 88: Interview II).

Analysis. The participant is especially enthusiastic of the posttransformation environment due to the amount of time saved by reducing or eliminating trouble spots within the classroom that increased transition time. He stated, “Time is valuable. No teacher says, ‘I’ve just got too much time.’ Unless they don’t want to teach” (#430, 431: Interview II). In the pretransformation environment, much time was lost when transitioning from one activity to the next. According to the participant, “It [pretransformation environment] was very prohibitive. You couldn’t get around at all. It was very tedious” (#65, 66: Interview II). The posttransformation environment encourages learning through the provision of adequate time for students to become engaged in learning. This is consistent with Evanshen’s (2010) model regarding the foundation; the environment. A flexible classroom design and schedule
contributes to the learning process. Seating options and various work spaces allow for easy transitioning while also providing needed movement opportunities throughout the day.

**Photo Documentation.** The photos below are demonstrative of the classroom design before and after being transformed based on principles of the 21st Century Model of Teaching and Learning and Educational Change (Evanshen, 2010). In the pretransformation environment (Figure 23.), “It was very prohibitive. You couldn’t get around at all. It was very tedious” (#65, 66: Interview II). Valuable teaching time was lost due to the amount of time it took for students to move from their desk to other areas within the classroom. Additionally, the teacher was unable to participate in one-on-one interactions with students due to the limited space between rows.

In the transformed environment, “The environment is conducive to speeding up transitions” (#87, 88: Interview II). The provision of small group work areas, a rug area, centers, and spaces between the computers allows for easy transitions from activity to the next. Figures 24. and 25 demonstrate the ease with which transitions can occur within the transformed environment.

**Emerging Theme: Transitions**

![Figure 23. Transitions Before](image1)

![Figure 24. Transitions After](image2)

![Figure 25. Current Transitions](image3)
Final Analysis

Throughout the process of analyzing interview data, it appeared the participant defended traditional methods he employed pretransformation. Upon completion of the initial coding process and throughout the data analysis process, the researcher noted a distinct shift in language throughout interview responses within the transcription. A shift from a traditional approach regarding the teaching and learning process to a more nontraditional, constructivist approach was evident in the language the participant used when responding to interview questions.

In addition to analyzing interview responses of each individual interview question both pretransformation and posttransformation, axial coding was conducted. Axial codes linked to themes based on the open codes resulted in the formation of a more precise phenomenon. Axial coding is the process of relating codes (i.e., units of meaning and themes) to each other through the use of both inductive and deductive reasoning (Strauss & Corbin, 1998). The coding process produced open codes within the interview transcripts revealing the results as summarized in Table 1.
Table 1.

Participant’s Description of Pretransformation and Posttransformation Environments

<table>
<thead>
<tr>
<th>Before Transformation</th>
<th>After Transformation</th>
</tr>
</thead>
<tbody>
<tr>
<td>limited space</td>
<td>room for movement</td>
</tr>
<tr>
<td>traditional-style</td>
<td>open environment</td>
</tr>
<tr>
<td>rows of desks</td>
<td>pleasant</td>
</tr>
<tr>
<td>closed environment</td>
<td>useful</td>
</tr>
<tr>
<td>tedious</td>
<td>conducive to learning</td>
</tr>
<tr>
<td>prohibitive</td>
<td>better</td>
</tr>
<tr>
<td>difficult to navigate</td>
<td>freedom</td>
</tr>
<tr>
<td>chaotic</td>
<td>opportunities to explore</td>
</tr>
<tr>
<td>disorganized</td>
<td>choices</td>
</tr>
<tr>
<td>behaviorist</td>
<td>organized</td>
</tr>
<tr>
<td>management heavy</td>
<td>social learning</td>
</tr>
<tr>
<td>minimum interactions</td>
<td>quality interactions</td>
</tr>
<tr>
<td>direct instruction</td>
<td>engaging</td>
</tr>
<tr>
<td>distractible</td>
<td>togetherness</td>
</tr>
<tr>
<td>whole group instruction</td>
<td>easy transitions</td>
</tr>
<tr>
<td>messy</td>
<td>direct interactions</td>
</tr>
<tr>
<td>out of hand</td>
<td>one-on-one instruction</td>
</tr>
<tr>
<td>submarine-like</td>
<td>individualized instruction</td>
</tr>
</tbody>
</table>
Summary

Chapter 4 provided an in-depth analysis of the interviews, the observational data, and photographic data. After reviewing the findings of the interviews, observation of the current classroom environment, and archival photographs results were analyzed in relation to the components of the 21st Century Model (Evanshen, 2010) and the researcher’s initial research questions. Findings were described in relation to consistency with best practices for primary age children. Chapter 5 includes a summary of the study, findings, conclusions, recommendations for further research, and study limitations.
CHAPTER 5

SUMMARY

Introduction

The purpose of this study was to examine an elementary teacher’s attitudes and beliefs in regard to the physical arrangement of the classroom environment prior to and after transformation based on principles of the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010). Qualitative research requires inductive data analysis theories surrounding a certain topic. Such theories are developed throughout the research process rather than initially tested. In other words, the intent of qualitative research is to gain in-depth understanding related to the ideas and behaviors of those involved (Goodwin & Goodwin, 1996). This descriptive phenomenological study focused on the description of a teacher’s experience regarding a physical transformation of the classroom and the perceived effects of the transformation on the daily classroom practices. It was the researcher’s goal to provide one teacher’s perspective of best practices as compared to Evanshen’s (2010) 21st Century Model for Teaching and Learning and Educational Change in relation to the primary classroom environment.

Based on a review of the literature, many educators feel the environment plays an important role in the teaching and learning process. Through rigorous data analysis the researcher found an increased level of support for the transformed environment that was analyzed according to the principles found within Evanshen’s (2010) model. The researcher assumed the participant’s philosophy regarding the environment would align with his personal philosophy of education; however, it became apparent throughout the interview process there existed a lack of consistency between practice and philosophy. This is not uncommon.
According to Airasian and Walsh (1997) many teachers express a certain degree of support for constructivist practice yet lack such principles in their practice. This may be due in part to school mandates that may not align with the personal philosophy and values of teachers, yet they are required to follow them.

Summary of Findings

Central Research Question

What was the third grade teacher’s perception of the classroom environment prior to and after transformation according to the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010)?

Responses to interview questions concerning the participant’s perception of the pretransformation environment revealed a shift in perception of the classroom environment before and after transformation. The participant described the pretransformation environment using the following terms: “traditional,” “not ideal,” “closed,” “semi-organized,” “chaotic,” “whole group instruction,” “directed,” “worksheets,” “behaviorist,” “minimal interactions,” and “prohibitive.” These descriptions align with a more traditional approach to education. The statement, “It was hard for me to do my job in that class” (#96, 97: Interview I), indicates the participant’s feelings of dissatisfaction with the traditional classroom design prior to the transformation.

The participant’s support for the posttransformation environment was evident when he described the transformed classroom as, “flexible,” “organized,” “very conducive to learning,” “exploration,” “journaling,” “more social,” and “fosters a sense of classroom community.” The posttransformation interview revealed a shift in the participant’s attitude and perception of the classroom as well as his professional practice, which is indicated by the statements, “It’s much
more pleasant” (#78: Interview II) and “It’s impacted tremendously the way I can teach” (#426: Interview II). The participant’s statements demonstrate a shift from an adverse viewpoint to a more positive and enlightened perception concerning the classroom environment before and after transformation.

Subquestion 1

Does the teacher demonstrate an increased level of support or enthusiasm for the role the environment plays in the teaching and learning process?

The data analysis process revealed an increased level of support and enthusiasm for the role of the environment in the teaching and learning process in a classroom transformed according to principles of the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010). The participant’s willingness and support for an environmental transformation is evident from the participant’s interview responses in which he reflected upon and shared his feelings concerning the pretransformation and posttransformation environment and how those feelings affected his practice. When reflecting upon the environment prior to transformation, the participant stated, “It was hard for me to do my job in that class” (#96, 97: Interview I), “The environment, although not ideal, was fostered by my teaching” (#163-164: Interview I), and “It was very hard to come into someone else’s environment that was very restrictive with so much stuff and be a new third grade teacher and try to figure out how to do anything in that environment” (#380-383: Interview II).

His feelings concerning the posttransformation environment demonstrated an increased level of enthusiasm and support for the transformed environment, which is evident in the statements, “My philosophy was aligned with the change. I just didn’t have the means. So it’s [environment] impacted tremendously the way I can teach” (#424-426: Interview II), “I’ve
always taken pride in my environment…to make it the third teacher” (#377-378), and “It’s much more pleasant” (#78: Interview II). According to Evanshen (2010), if the culture and climate of the transformed environment are consistently reinforced and expected, a quality learning environment emerges. Without consistency the teacher and students will not experience a successful transformation (Evanshen, 2010). The participant’s willingness to undergo the classroom transformation is a contributing factor to success.

Subquestion 2

How does the environmental design impact teaching and learning?

The environmental transformation based on Evanshen’s (2010) model impacted the teaching and learning process of the participating teacher. This is evident in the statement, “It [environment] has affected my teaching style. The open environment allows me to do more one-on-one. That’s less direct instruction [referring to whole group]. Less of sitting in their desks watching me. It’s more open, and they can see me. That has changed things” (#280-283: Interview I). A child-centered approach to teaching and learning has taken the place of the traditional method used prior to the transformation. The use of small group and individual instruction indicates a shift from a traditional teaching style (e.g., whole group direct instruction) to a more child-centered approach (e.g., one-on-one interactions) or nontraditional style, incorporating principles of constructivist practice.

Subquestion 3

What role does the environment play in developing a classroom community that engages the learner?

The environmental transformation based on Evanshen’s (2010) model enhanced and increased the student-to-student and teacher-to-student interactions occurring in the third grade
classroom, thus promoting a stronger sense of classroom community according to the participant’s responses. Prior to the transformation, “The student to student interactions were kept somewhat to a minimum with proper zoning and spacing…” (#175-177: Interview I), “With a more traditional style, the backs were to one another…” (#236-237: Interview I), and “It was difficult for the teachers to interact with the kids. It was very prohibitive…” (#140-142: Interview I). These statements indicate an environment based on a more traditional design in which social interaction is kept at a minimal as the teacher directs the learning process.

The participant indicated the posttransformation environment promoted the sense of community and asserted his belief in the following statements: “It’s so much more open like this. Everybody can see everybody and know what’s going on. It’s much better” (#238-239: Interview II), “It’s much more social” (#198: Interview I), “It [classroom] fosters a sense of classroom community” (#223: Interview II), “It’s quality interaction” (#273: Interview II), and “There’s so much more direct interaction” (#265: Interview II). These statements demonstrate a shift from a more traditional approach to education in which learning occurs in isolation with minimal social interactions to a more nontraditional and constructivist-based environment designed to promote cooperation and collaboration in an attempt to build a sense of classroom community.

Subquestion 4

In what ways does the environmental design enhance or transform the academic approach?

According to Evanshen (2010) the traditional classroom design promotes passive learning by students as the teacher is the center of attention. In the pretransformation environment, the rows of desks were arranged in such a way that the teacher was the focus of the classroom during
whole group instructional time that was the main instructional teaching strategy. The posttransformation environment encouraged active involvement in the learning process, hands-on exploration, choices, and reflection. Additionally, subjects were integrated as children implemented critical-thinking strategies while participating in well-planned experiences with concrete materials. The participant stated, “During center time, they have freedom to get things out. To explore them. And they do” (#139, 140: Interview II). Practices in the posttransformation environment are aligned with developmentally appropriate practice that asserts it is the responsibility of educators to enhance development and learning of all children through the implementation of curriculum which meets learning goals (Bredekamp & Copple, 1997).

Environmental changes based on Evanshen’s (2010) model additionally affected the types of assessment in the posttransformation environment. The primary form of assessment prior to the transformation was paper-based, formal or standardized assessment. The participant stated, “Last year we did worksheets and then the kids took the worksheet, and I’d have twenty kids turning in papers and only eight would have their worksheet” (#232-235: Interview I). After the transformation, the academic approach was altered and assessment included more authentic methods. Assessment in the posttransformation environment included journaling, project work, observations, documentation of the learning process and one-on-one interactions with the teacher. The academic approach was transformed as authentic assessments were visible in the environment and aided the teacher in developing meaningful and relevant curriculum.

Conclusions

Based on findings one can conclude that a classroom environment based on principles of the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010)
enhances teacher attitude in relation to role of the environment in the teaching and learning process. However, when making a transformation from a traditional approach to teaching and learning to a practice based on principles of constructivism, Evanshen (2010) advises educators to be aware that change is ongoing and requires a shift in thinking in addition to changes in the classroom environment. Educators must develop an appreciation for the natural curiosities of children and build upon this curiosity in order to elicit engagement throughout the learning process (Evanshen, 2010).

Descriptive words used by the participant in the interviews conducted in this study regarding the pretransformation and posttransformation classroom environment indicate a shift from a traditional approach to a more nontraditional or constructivist approach to teaching and learning. Table 1. represents the participant’s description of the differences between a traditional (pretransformation) and nontraditional (posttransformation) classroom. The following terms (as outlined in Table 1.) were used by the participant to describe the pretransformation environment: closed environment, tedious, prohibitive, difficult to navigate, chaotic, disorganized, behaviorist, management heavy, minimum interactions, direct instruction, distractible, whole group instruction, messy, out of hand, and submarine-like. Each of these terms implicates the traditional approach that was implemented prior to the transformation. Additionally, the researcher noted negativity surrounding the terms used to describe the pretransformation environment.

Descriptive terms used to describe the nontraditional (posttransformation) environment included: useful, conducive to learning, better, freedom, opportunities to explore, choices, organized, social learning, quality interactions, engaging, togetherness, easy transitions, direct interactions, one-on-one instruction, and individualized instruction. The terms used to describe
the transformed environment are consistent with the principles outlined in Evanshen’s (2010) model, which represents best practices. The terms used to describe the posttransformation environment are noticeably more positive than the descriptive words assigned to the pretransformation environment. This is further demonstration of the participant’s increased enthusiasm and support for the environmental transformation based on principles of the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010).

Results of the study indicate that the participant views himself as a constructivist educator, while his practices and environmental design during the first interview (pretransformation) indicated a behaviorist philosophy and style of teaching. The findings indicate teachers may have difficulty correlating personal philosophy of education and beliefs with their practice regarding the role of the environment in the teaching and learning process. His responses during the second interview (posttransformation) represented his emerging constructivist philosophy and additionally included indications of continuing to grow his practice of teaching to include more constructivist elements.

Despite the transformation of the environment from traditional to one based on the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010), the participating teacher continues to implement some traditional and behaviorist methodologies. This is not surprising. An environment based on a more traditional teaching approach is likely to yield increased elements of behaviorist practice (Airasian & Walsh, 1997). It is evident from the participant’s responses he is transforming and adapting his practice from a more traditional approach toward a more nontraditional or constructivist approach. It is clear the changes in the environment have afforded him the opportunity to do such. As he becomes more comfortable with the transformed environment, it is likely he will increase implementation of teaching
practices that are more closely aligned with constructivist principles as indicated in his response, “I am getting used to the environment now. Maybe next year I will utilize the environment and the centers more” (#189-191: Interview II).

Recommendations

The process of developing and implementing this study was a learning experience. Having completed the study, I can make several recommendations that would improve its significance and broaden its relevance in the field of Early Childhood Education. It has become evident that students in teacher education programs are in need of information related to the role of the environment in the teaching and learning process. Early childhood professors should dedicate more time to the study of theory linked to the role of a well-planned environment in the learning process. Additionally, it is recommended that administrators and teachers in the field attend workshops focusing on the importance of well-planned school and classroom environments.

Teachers should take the opportunity to visit classrooms of peer teachers for ideas and inspiration concerning the environment as well as partake in self-reflection on the use of the environment as a teaching tool. A great way to do this would be through a self-survey or a classroom observation tool. Perhaps student input could also be a factor in the process of making changes to the classroom environment (e.g., What classroom changes would help you learn?).

Ideally, a larger sample size should be studied. This could be a long and potentially costly venture. Many schools are limited in resources and would not be willing to undergo such an endeavor (i.e., transformation of classroom environments). However, transformational work on classroom environments and use of the environment as a teaching tool could be accomplished
through on-site professional development in individual schools. The study of numerous teachers and their attitudes and beliefs toward the environment has the potential to drastically affect the field of early childhood. Designing a study that includes quantifiable academic achievement scores with positive results would provide additional support for a classroom environment based on principles of the 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010).

Further research could also be conducted concerning certain variables that impact teacher beliefs and attitudes about their practice in relation to the environment. Variables could include age, level of degree, professional development, school district, gender, etc. A study including these elements would require more in-depth questioning strategies and would most likely yield a more reliable representation of the overall teacher population. Examination of the leadership in schools where teachers are involved in transforming their environments is another area of study.

**Study Limitations**

Although a relationship seems to exist between an environmental design based on 21st Century Model for Teaching and Learning and Educational Change (Evanshen, 2010) and teacher attitude and beliefs concerning the environment, possible flaws exist within research, and this study is no exception. As with any research, certain limitations may affect study outcomes. Study limitations are outlined on the subsequent page.

- **Defining constructivism** - One of the major difficulties with this phenomenological study was concisely defining the term constructivism or constructivist. This is due in part to the fact that constructivism is a theory of knowledge and not a specific pedagogy.
- **Human variation** - The perceptions and experiences of the participant are unique. His beliefs and attitudes concerning the environment’s role in the teaching and learning
process are likely a result of a variety of factors that may include but are not limited to:
age, gender, educational and teaching background, personal and professional experiences,
and personal philosophy of education. Additionally, the variation of the student
population each year may have also affected the teacher’s attitude toward his personal
and professional practice within the pretransformation and posttransformation
environment.

- Size of study group- Implementing a study with a large test group provides a more
  accurate representation of the overall population. This study included one male
  participant; therefore, study outcomes cannot be used to make generalizations about the
effects of an environmental transformation based on principles of the 21st Century Model
for Teaching and Learning and Educational Change (Evanshen, 2010).

- The participant’s previous relationship with faculty in the College of Education where he
  obtained his Early Childhood degree may have impacted his responses to interview
  questions.
REFERENCES


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November 11, 2009

Dear Participant:

This Informed Consent will explain about being a participant in a research study. It is important that you read this material carefully and then decide if you wish to be a volunteer.

PURPOSE:

The purpose(s) of this research study is/are as follows:

Project Third Grade Environment is a descriptive study of a third grade classroom at School A that was transformed in late spring 2009 to be consistent with the principles incorporated in the 21st Century Model for Teaching and Learning (Evanshen, 2010). The physical and learning environment were changed to be consistent with best practices for primary age children. The objectives of this study are 1) to document the current physical and learning environment and 2) interview the classroom teacher. Information will be compiled and analyzed in relation to early childhood best practices for primary age children. There is no intervention with the teacher and students. No individually and identifiable information will be collected on students and no investigational and/or marketed drug of device will be used during the study.

DURATION

Prior to initiation of the study, PI will meet with you (study participant) to describe the study, answer questions, and agree to a schedule of activities that do not disrupt or alter student instruction at any time. Data collection forms for documenting the physical and learning environment will be designed and the interview questions determined. A mutually agreeable schedule for observations and the teacher interview will be established. PI will first observe the physical environment including photographs and a narrative description of the environment, materials, and physical arrangement of the room. 2-3 observations will be conducted lasting 1-2 hours each. You will be interviewed two times at your convenience.

PROCEDURES

Interview questions will reflect the following areas: arrangement and use of the physical environment, types of large and small group instruction, organization and type of materials, extent to which classroom climate facilitates engagement and learning, and your perceptions of the extent to which physical and learning environment influences the sense of classroom community. Demographics collected about you as a teacher include years teaching, education
level, current licensure, and professional development activities within last three years. Data analyses: 1) information about physical environment captured in photos and narrative description. This information will be compared with artifactual photos documenting the physical environment which were collected prior to transformation of the classroom. 2) interview data will be summarized by interview questions. Findings will be described in relation to consistency with best practices for primary age children.

ALTERNATIVE PROCEDURES/TREATMENTS

The alternative procedures/treatments available to you if you elect not to participate in this study are:

There are no alternative procedures/treatments.

POSSIBLE RISKS/DISCOMFORTS

The possible risks and/or discomforts of your involvement include:

Project Third Grade Environment poses minimal risk to you. Unanticipated school schedule changes could pose brief minor alterations to planned classroom observations. Project Third Grade Environment is a descriptive study that incorporates qualitative components. There is no intervention with students or the teacher. The only potential risks are minor inconveniences in scheduling activities. During observations the PI will not be interacting with the teacher or students that would possibly cause interference or interruptions. The teacher interviews are scheduled at a mutually convenient time to avoid disrupting planning or instruction throughout the schoolday.

POSSIBLE BENEFITS

The possible benefits of your participation are:

Upon completion of the study, findings will be communicated to you in writing and in a meeting. Any questions will be answered and suggestions for continuing professional development will be provided. At the same time, you will learn the extent to which the classroom's physical and learning environment reflects best practices for serving primary age children.

FINANCIAL COSTS

There are no additional costs to you that may result from participation in the research study.

COMPENSATION IN THE FORM OF PAYMENTS TO RESEARCH PARTICIPANTS

There is no compensation of payments to research participants.
VOLUNTARY PARTICIPATION

Participation in this research experiment is voluntary. You may refuse to participate. You can quit at any time. If you quit or refuse to participate, the benefits or treatment to which you are otherwise entitled will not be affected. You may quit by calling Charity Hensley whose phone number is 423.388.5729. You will be told immediately if any of the results of the study should reasonably be expected to make you change your mind about staying in the study.

CONTACT FOR QUESTIONS

If you have any questions, problems or research-related problems at any time, you may call Charity Hensley, PI at 423.388.5729 or Dr. Pamela Evanshen, Co-PI at 423.439.7694. You may call the Chairman of the Institutional Review Board at 423.439.6054 for any questions you may have about your rights as a research subject. If you have any questions or concerns about the research and want to talk to someone independent of the research team or you can’t reach the study staff, you may call an IRB Coordinator at 423.439.6055 or 423.439.6002.

CONFIDENTIALITY

Every attempt will be made to see that your study results are kept confidential. Only the PI will record, maintain, and analyze the study data. All electronic data will be password protected while hardcopy information will be stored in a locked storage cabinet on East Tennessee State University campus within Warf-Pickel Hall. No individually identifiable information will be collected on you or children in the classroom. The results of this study may be published and/or presented at meetings without naming you as a subject. Although your rights and privacy will be maintained, the Secretary of the Department of Health and Human Services, ETSU IRB, and personnel particular to this research have access to the study records. Your records will be kept completely confidential according to current legal requirements. They will not be revealed unless required by law, or as noted above.

By signing below, you confirm that you have read or had this document read to you. You will be given a signed copy of this informed consent document. You have been given the chance to ask questions and to discuss your participation with the investigator. You freely and voluntarily choose to be in this research project.

__________________________________    ________________
SIGNATURE OF PARTICIPANT           DATE

_____________________________________________________________________    ________________________________
PRINTED NAME OF PARTICIPANT             DATE

_____________________________________________________________________    _________________________________
SIGNATURE OF INVESTIGATOR                   DATE
APPENDIX B

TEACHER PARTICIPANT INTERVIEW QUESTIONS: BEFORE

I. Environment
   a) Please describe the physical arrangement of your classroom prior to the transformation.
   b) Can you briefly describe your feelings regarding the physical classroom environment before it was transformed?
   c) How were materials organized prior to the transformation?
   d) Do you feel this was an effective means of organization? If so, why?
   e) How did students utilize materials prior to the transformation?

II. Enhancement
   a) Describe your classroom discipline technique prior to the transformation.
   b) Describe the learning process in relation to:
      1. Choices
         a. What types of choices did children have in the learning process?
      2. Social interaction & peer collaboration
         a. What types of interactions occurred?
      3. Community of learners
         a. Would you describe the pre-transformed classroom as a community of learners and, if so, what specific aspects of the physical environment provided for such?
   c) Prior to the transformation, did you feel that the classroom encouraged learning?
d) How would you describe the classroom culture (i.e., student-to-student interaction & teacher-to-student interaction) prior to the transformation?

II. Academic Approach

a) Describe your teaching style and methods prior to the transformation.

b) What were your assessment techniques pre-transformation?

c) How did you utilize whole & small group instruction?

   a. Approximately how much time did you spend engaged in small group, individual, and whole group instruction?

d) Describe student engagement in learning in the environment before it was transformed.

e) What were the strengths/weaknesses of the pre-transformation environment?
APPENDIX C

TEACHER PARTICIPANT INTERVIEW QUESTIONS: AFTER

I. Environment

a) Please describe the physical arrangement of your classroom now.

b) Can you briefly describe your feelings regarding the physical classroom environment after it was transformed?

c) Which environment would you consider to be most effective?

   1. Pre-transformation environment?
   2. Post-transformation environment?

d) How are materials organized in your classroom now?

e) Do you feel that this is an effective means of organization? If so, why?

f) How do students utilize materials within the classroom?

g) How does this type of organization affect the use of materials by students?

III. Enhancement

a) Describe your classroom discipline technique as it is now.

b) Describe the learning process in relation to:

   1. Choices

      b. What types of choices do children have in the learning process?

   4. Social interaction & peer collaboration

      a. What types of interactions occur?

   5. Community of learners

      a. Would you describe the classroom as a community of learners and, if so,
what specific aspects of the physical environment provide for such?

c) Do you feel that the classroom encourages learning?

d) How would you describe the classroom culture (i.e. student-to-student interaction &
   teacher-to-student interaction)?

II. Academic Approach

a) Describe your teaching style and methods since the environment was transformed.

b) Have your methods/styles changed?

c) What are your assessment techniques?

d) How do you utilize whole & small group instruction?
   a. Approximately how much time do you spend engaged in small group, individual,
      and whole group instruction?

e) Describe student engagement in learning in post-transformation environment?

f) What are the strengths/weaknesses of this environment?

g) How has the transformation impacted and/or benefited:
   1. You as a professional
   2. Students in your classroom
   3. Students’ families
   4. Peer teachers
   5. University School

h) How much/many of the classroom changes do you feel is/are a result of the
   transformation?
APPENDIX D
MEMBER-CHECKING LETTER

February 9, 2010

Dear Participant:

Thank you for taking time to complete two interviews with me. Please review the attached transcription. This process is known as member-checking, in which a research participant is asked to check for accuracy of data obtained through the interview process. This will ensure credibility by preventing mistakes and bias. If you feel that the transcription is accurate, based on your interview answers, please sign on the line below. Thank you for your participation and time. Your contribution toward the completion of my thesis is appreciated. Thank you!

Sincerely,

Charity Hensley

*Yes, the attached transcription is accurate and true: _____________________________

Date: ___________________________
VITA

CHARITY G. HENSLEY

Personal Data: Date of Birth: September 9, 1985
Place of Birth: Johnson City, Tennessee
Marital Status: Single

Education:
M.A. Early Childhood Education, East Tennessee State University, Johnson City, Tennessee, 2010
B.S. Early Childhood Education, East Tennessee State University, Johnson City, Tennessee, 2007
Unicoi County High School, Erwin, Tennessee, 2003

Professional Experience:
Child Care Director, Unicoi County Family YMCA; Erwin, Tennessee, March 2008-present
Graduate Assistant, East Tennessee State University, Johnson City, Tennessee January, 2008-present
Child Care Counselor, Unicoi County Family YMCA, Erwin, Tennessee, May 2002-March 2008
Student Teacher: Mountain View Elementary School, Johnson City, Tennessee, October 2007-December 2007

Honors and Awards:
Dean’s List every semester, East Tennessee State University, Johnson City, Tennessee, 2003-2007