THE EFFECTS OF MUSIC IN KINDERGARTEN LESSONS ON STUDENT ENGAGEMENT AND STUDENT LEARNING

A dissertation presented by
Paul M. Sullivan
to
The College of Professional Studies

In partial fulfillment for the degree of
Doctor of Education

In the field of
Educational Leadership

Northeastern University
Boston, Massachusetts
August, 2016
Abstract

Over the past many years public schools in the United States have seen a reduction in art and music-based programming. This emphasis toward standards-based public education with its increased focus on learning in the content areas has, in many ways, subjugated music to the classification of an extraneous or secondary concern. Many kindergarten teachers contest that notion and feel that music, for many and varied reasons, should serve as an important presence in early learning settings.

This research focused on the use of music in kindergarten classrooms to affect the engagement and learning of students in those classrooms. The qualitative study was conducted in an early childhood center which centrally houses all of the kindergarten programming within a suburban public school district in the northeastern United States.

Data was collected from three distinct sources; transcripts from a focus group interview of six kindergarten teachers, transcripts of the researcher’s interviews of eight kindergarteners, and a document review of the researcher’s protocols from his classroom observations of twelve kindergarten lessons - two each from the same six teachers who participated in the focus group interview. Emergent themes were discovered, identified and discussed from the triangulated data.

The key findings of this study strongly suggest that when music is used in kindergarten classrooms and included within kindergarten activities student engagement is enhanced significantly and the learning of those kindergarten children is positively affected.

*Keywords*: music, early learning, kindergarten, student engagement
Acknowledgments

The journey has been grueling glorious toward this hardest and most satisfying accomplishment of my professional life. And I did not go it alone. I know that. There are so many who were instrumental to this achievement and deserve recognition and thanks.

First, thank you to my wife, Clare, my best friend and the most talented teacher I have ever met. I LOVE you! You pulled me into this process then pushed me through it. I have often joked that my foremost talent in life was mate-picking.

It is no joke.

Thanks to my son, Paul, who personified the values of resilience and persistence (must have inherited them from his mother), taking a big disappointment in a young life and transforming it into a magnificent accomplishment. With a door blocked, he found the proverbial window and crashed on through. My pride swells. Hi, Sarah! Hi, Zach!

Thanks to my Mom. She loved music and she thought that maybe I could write something one day. Sensing the warmth of her 'I-told-you-so' smile almost compensates for the fact that she is not here to joyfully celebrate the culmination of the work she helped to start. Forgive the split infinitive in that last sentence, Mom; I miss my first proofreader, editor and typist.

Thanks, Dad. War robbed you of the prospect of higher education. Ironically, your military service rendered a profound collateral benefit to your children. Chuck, Steve, Pete, Carol, Gary, Mark, Jack and I recognize and understand that the patriotic detour in your life's path forged in you a relentless mindset that your kids would be better educated than were you. Better schooled, maybe. Thanks from all of them, for all of them and to all of them.
Thanks to Dr. Chris Unger, the advisor everybody wanted and I had. No one could have been more patient, insightful, helpful, motivating, encouraging, accommodating and expert through this process. My thanks to Chris are nearly as numerous as the missed 'deadlines' he graciously endured on my behalf. He is the best. Thanks also to Dr. Corliss Brown Thompson; my decades-long colleague, Dr. Mary Joyce, and, through them, to the entire Husky community.

Thanks to my friends in the Dedham cohort; Doctors and Prospective Doctors, all. Having taught with some of them and for some of them for so long, it was an enormous pleasure and honor to learn with all of them.

Thanks to my amazing staff and particularly to my longtime secretary and friend Amy Hicks for her unrelenting encouragement, cheerleading and confidence building.

Thanks to the hundreds of kindergarten students whom I have had the privilege to teach. I wish everyone reading this could, as I do, bask in the bright-eyed, optimistic countenance of the five-year-old each morning of his working life. Envy me, folks - the future smiles at me every day. Thanks, kids!

Thanks to all my colleagues, family and friends who buoyed me with kind words, thoughts, suggestions and exhortations. Thanks as well, and perhaps, strangely, more, to those who brazenly chided, "Haven't you finished that thing yet?"

So, finally...with humility and deep, deep gratitude...

Thank God.

It is finished.
# Table of Contents

ABSTRACT 2

ACKNOWLEDGEMENTS 3

TABLE OF CONTENTS 5

CHAPTER I: INTRODUCTION 7
  Statement of the Problem and Significance 8
  Research Questions 11
  Theoretical Framework 11

CHAPTER II: LITERATURE REVIEW 19
  Music and Human Response 19
  Music and Learning 21
  Music and Kindergarten 25
  Music and Student Engagement 29
  Summary 31

CHAPTER III: RESEARCH DESIGN 33
  Research Questions 34
  Research Design 34
  Site and Participants 34
  Data Collection 37
  Data Analysis 50
  Storing Data 53
  Limitations 53
  Protection of Human Subjects 54
  Conclusion 55

CHAPTER IV: RESEARCH FINDINGS 57
  Summary of Study Site, Participants and Data Collected 57
  Research Question 1 60
  Research Question 2 75
  Research Question 3 84
  Summary of Findings 91

CHAPTER V: DISCUSSION OF RESEARCH FINDINGS 94
  Revisiting the Problem of Practice 94
  Review of Methodology 95
  Discussion of the Major Findings 97
  Discussion of the Study Findings in relationship to the Theoretical framework 103
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion of the Study Findings in relationship to the Literature</td>
<td>107</td>
</tr>
<tr>
<td>Conclusion</td>
<td>111</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>113</td>
</tr>
<tr>
<td>Limitations</td>
<td>113</td>
</tr>
<tr>
<td>Validity</td>
<td>115</td>
</tr>
<tr>
<td>Future Research</td>
<td>116</td>
</tr>
<tr>
<td>Recommendations for Practice</td>
<td>121</td>
</tr>
<tr>
<td>Summary</td>
<td>120</td>
</tr>
<tr>
<td>Personal Thoughts and Reflections</td>
<td>120</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>124</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>134</td>
</tr>
<tr>
<td>Appendix A - Focus Group Interview Questions - Teachers</td>
<td>134</td>
</tr>
<tr>
<td>Appendix B - Interview Questions - Students</td>
<td>135</td>
</tr>
<tr>
<td>Appendix C - Researcher Observational Protocol</td>
<td>136</td>
</tr>
</tbody>
</table>
Chapter I: Introduction

I have worked in public school kindergartens since 1992: as a classroom teacher of kindergarten for almost twenty years and as principal of an early childhood center, housing ten kindergarten classes, for about two years. When I was a kindergarten teacher, I was called upon at the outset of each school year to make certain baseline assessments of the learning and skill levels of my students. Essentially all public school kindergarten teachers perform this type of student evaluation. Part of the data collection process involves determining the relative proficiency of students with the identification of the letters of the English alphabet.

One year not long ago, I summoned my students, one by one, to my assessment table and asked them to tell me the letters of the alphabet. Every one of the children - probably twenty-two in number - sang the ABC Song to me. Now, I did not ask them to sing it but that was the means by which they demonstrated their mastery of one of the most fundamental elements of early learning. They all sang the alphabet to me because that is how they all learned it.

Kindergarten is the traditional first year of official schooling for students in American public schools. Historically, a standard curriculum for public school kindergarten has included a variety of content; spanning a range of cognitive, social, emotional, motor and behavioral realms. As a longtime observer as of educational trends with decades of experience in kindergarten curriculum implementation I concur with Rentner, et al. (2006) that educational reform and the accountability and high-stakes testing movement has forced public school curricula to become increasingly compressed and focused on ‘academic’ areas with a corresponding subordination of other very important facets of child growth and development.

Miller & Almon (2009) chronicle some of what many contend are alarming changes in kindergarten programming over time,
kindergarten has changed radically in the last two decades in ways that few Americans are aware of. Children now spend far more time being taught and tested on literacy and math skills than they do learning through play and exploration, exercising their bodies, and using their imaginations. Many kindergartens use highly prescriptive curricula geared to new state standards and linked to standardized tests (p. 11).

Music can serve as a powerful force in early learning and can do so in many ways (Jensen, 2000). In my experience as a kindergarten teacher, I personally leveraged the properties and values of music to assist student learning, attract and gain student interest, adjust and orchestrate the mood in my classroom, and sometimes to just enjoy the ambience.

As a veteran teacher of kindergarten and now an administrator of kindergarten policy, I seek to improve the educational experiences and learning of students whenever and wherever I can. In order to better understand the role music can play in students’ learning and their engagement in learning, I propose to undertake a qualitative study collecting, synthesizing and analyzing the perceptions of the kindergarten teachers currently working in my school to determine their philosophies, attitudes, beliefs and opinions about the efficacy of utilizing music within their practice to enhance student engagement and improve student learning. A focus group will be conducted and utilized in order to discover and discuss these perceptions, to record them and to provide data for analysis. I will also interview kindergarten students for their perspectives and observe kindergarten teachers using music within their practices.

**Statement of the Problem and Significance**

The current emphasis on standards-based accountability at both the state and national levels has led to the reduction of music programs in schools (Miller & Almon, 2009). The concomitant push to have students achieve in a certain prescribed way has increased the pressure
upon administrators and decision-makers to eliminate or deemphasize certain types of educational programs like music and art. Further, increased attention to learning in the ‘content areas’ even for very young students - and the amount of time necessary for that devotion - has caused more and more early childhood teachers to reduce or minimize the use of music in their everyday instruction (Miller & Almon, 2009).

Some kindergarten teachers, however, believe that the incorporation of music in everyday instruction actually benefits students’ academic learning. In my roughly twenty years of experience as an early educator, I have observed that the role music can play in a child's developmental life can be powerful. The response of children to rhythm, melody and lyrics makes music an ideal tool for assisting them with instruction advised by interwoven elements of language, listening, speaking, reading and writing (Kohb, 1996). I have witnessed how young children typically respond cognitively and emotionally to music when it is judiciously used as a learning tool. Although responses to music are certainly not identical among and between children they are invariably apparent. Feierabend (1990) notes that a variety of music exposure and music-based activities in early childhood education tends to foster a variety of developmental skills in children. Conversely, when students are or have been deprived of music there appears to me to be an association between such deficiency and negative educational consequences.

I believe that this curtailment of music and music programs potentially compromises learning possibilities that could be rich and beneficial to the development of children. Also, beyond the actual cutbacks of resources lie, in my view, other subtle but equally serious pressures on early educators to scale back or eliminate elements of music from the curriculum in order to provide time for other academic exercises deemed by some to be more important. I
believe there are serious negative consequences when children are deprived of their rhythms, pacing, language, tonality and joy of music within their learning environments.

Reduction in music programming is one part of the larger problem but the effect extends deeper. The signal being communicated to teachers at the early childhood level by policymakers is that music is not as important as some other aspects related to early learning, particularly those in what could be termed ‘academic’ areas of kindergarten. Therefore, the problem as identified is exacerbated by the accountability drive of education reform and the strong influences inherent in that movement. Additionally, consistent external forces advocating thrift and budget reduction tend to compound the problem (Miller & Almon, 2009). These drives affect both the range and scope of curricular offerings within the public schools. Historically, music in particular and the arts in general suffer from a demonstrated tendency among policymakers to downscale or eliminate them from core curricula in response to financial challenges. In that vein, Diamond & Hopson (1998) defined music's place in schools as an increasingly peripheral one, noting that in most schools music is considered a curricular frill leaving it vulnerable to budget reductions and cutbacks.

It is my belief that if the simple and everyday use of music in the early childhood classroom becomes neglected and if the pressure for achievement within a narrow definition of that term continues to proliferate, there can be serious resultant consequences for student growth and learning. I believe that, should a broad diminution of music’s role prevail and remain unaddressed in early childhood education, the important contributions and connections that music can make to language and skill development of young children will suffer. Deasy (2002) suggests that connections between music, learning, musical experiences and fundamental cognitive capabilities of children are evident and important. It logically follows that the
reduction of music programs, music education and classroom-based instruction through music
would have a corresponding negative impact on the same capacities at a particularly crucial time
in the formative period of young children.

Research Questions

Three research questions will be the focus of this qualitative inquiry:

1. What are kindergarten teachers’ perceptions of the use of music in kindergarten
   lessons to enhance their students’ engagement and learning in the classroom?

2. How do kindergarten students perceive the use of music in kindergarten lessons as
   affecting their engagement and learning in the classroom?

3. How does the use of music in kindergarten lessons affect student engagement and
   learning in the classroom as observed by the researcher?

Theoretical Framework

Child Development Theory and Multiple Intelligence Theory will inform my qualitative
inquiry involving music and Kindergarten teachers and learners.

Child Development Theory. The constructivist paradigms of Jean Piaget and other
developmental psychologists, such as Jerome Bruner and Lev Vygotsky, are critical to the
framing of this inquiry. Their collective research and theories on human learning in early
childhood development lend important insight and direction to the intricacies and perplexities of
both the teaching and learning processes of young children.

Piaget is acknowledged as one of history's foremost psychologist in the realms of child
psychology and human intellectual development. Piaget posited that a young child's growth
could be described within the schema of the sequence of milestones and benchmarks that he
termed developmental stages. He identified four major stages in the development of the child:
the sensorimotor, pre-operational, concrete operational and formal operational stages (Piaget, 1972). In Piaget’s framework, these stages strengthened and supported each other and the maturing child needed to successfully pass through one in order to enter the next.

Piaget stated that children learn most naturally and effectively when their teachers or other authority figures allow and encourage them to interact with their environment, manipulate it to their needs and dispositions and experiment with it and challenge or question it – all within the scope and parameters of the developmental stage of growth they had attained. He felt that the primary role of the teacher was to realize children's development and arrange and provide opportunities for such exploration and discovery (Abrahams, 2005).

A functional understanding of the rationale, descriptors and specifications of Piaget’s stages, specifically the preoperational stage, is critical to the effective kindergarten teacher as the developmental growth process of most, if not all, kindergarten students is rooted in this category. Piaget viewed the preoperational stage as that in which students formulate their thoughts and ideas directly from personal experience (Mooney, 2000).

Given that the development of most kindergarten-age children falls within Piaget’s preoperational stage, a good part of their teacher’s calculated instructional focus should be on leading and guiding them through valid experiences that they can pursue through multiple and persistent exposures at their individual learning paces. Piaget referred to the child in this stage as a “little scientist, constantly constructing and reconstructing theories about the world and how it works” (Dimitriadis & Kamberelis, 2006, p. 174).

A basic tenet of the constructivist principles for which Piaget is known is that a young child builds or constructs his own knowledge through a defined and predictable model (Mooney, 2000). Piaget asserted that early learning was characterized chiefly by a child's interaction with
his environment. Although it is a popularly held contention today, that notion ran counter to the prevailing opinion of Piaget’s era that learning was derived from either intrinsic means (generated internally by the child) or extrinsic means (imposed upon the child by aspects of his environment beyond his control or influence, e.g. circumstances or adult authority) (Mooney, 2000). A child’s inner curiosity was also a major force in his learning process according to Piaget (1977).

Piaget wrote and spoke often of “pedagogical mania” (Pulasky, 1980). Pedagogical mania refers to the widespread (even today) practice where a teacher stands before a group of students and verbally instructs or directs them. Piaget believed that sensorimotor learning activities were essential to children in their self-discovery process. To Piaget, not allowing students to or not providing opportunities for students to be involved in these types of active and exploratory activities was counterproductive to the desired outcomes of optimal child development (Pulasky, 1980).

A major theoretical interest of Piaget was the development of structures of thought in the mind, essentially cognitive processes (Serafine, 1980). Structures are formed in the mind of the developing child through a process Piaget called “equilibration.” Serafine (1980) defined this notion of equilibration as the “complementary processes of assimilation, that is, the subject’s taking in of the environment or milieu, and accommodation – the reorganization of internal structures to meet the demands of the environment” (p. 1).

One of the isolated drawbacks of relating Piagetian theory to this inquiry is that music evokes emotions and deals deeply in the affective domain. Piaget’s work focused primarily on cognition and tended not to concern itself with considerations of emotional or affective processes. It has been argued by others, however, that emotional connections are important to
the learning process and can be activated simply and effectively through music. Bruner (1977) expresses tacit approval to capitalizing on elements of the affective domain within an educational context, theoretically questioning, “how do I know what I am until I feel what I do?” (p. 43).

Beyond Piaget, learning and child development theories began to move in new and divergent directions. The effects of social interaction and cultural exposure upon learners, and specifically young learners, became important considerations for developmental psychologists and other concerned intellectuals. In the minds of many, Russian psychologist Lev Vygotsky championed this movement. Dimitriadis & Kamberelis (2006) confirm that Vygotsky’s theories about conceptual development “marked a shift from the traditional developmental models of learning and development toward understanding individual mental functioning as situated within social and cultural activities” (p. 196).

Vygotsky’s theories are solidly grounded in the social and cultural context of learning. Perhaps the most popular and well-regarded component of Vygotskian learning theory among modern educational professionals is his identification of the Zone of Proximal Development (ZPD). The Zone of Proximal Development is a virtual span representing the temporal psychological positioning of a learner who is readying, typically with the assistance of external directional influence and through challenge or intellectual stretch, to advance along a continuum of learning toward acquisition and ultimate mastery of a new task or capacity (Vygotsky, 1978). Vygotsky himself defined the ZPD as the “distance between the actual development level as determined by independent problem-solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers” (Vygotsky, 1978, p. 86). Dimitriadis & Kamberelis (2006) feel that “learning in the ZPD
leads not only to the development of concepts and knowledge but also to the development of culturally appropriate practices” (p. 197).

Another interesting and relevant aspect of Vygotskian thought is his consideration of semiotic mediation, that is, the utilization of signs, symbols and similar and related mediators to assist and facilitate learning and development. This notion is particularly appropriate and exciting within this researcher’s specific inquiry. Dimitriadis & Kamberelis (2006) identify examples of semiotic mediation. These include, but are not limited to, language, (both spoken and written), maps, signs in the environment (street and warning signs, etc.) and mnemonic devices or memory aids that would predictably include music and musical elements. Indeed, Vygotsky (1978), true to his Marxist background and inclinations, offered an interesting parallel between semiotic mediators and other, more generally recognized, tools. He wrote:

the invention and use of signs as an auxiliary means of solving a given psychological problem to remember, compare something, report, choose, and so on is analogous to the invention and use of tools. The sign acts as an instrument of psychological activity in a manner analogous to the role of a tool in labor. (Vygotsky, 1978, p. 52).

Additionally, Vygotsky’s socio-cultural theories of constructivism represent another pertinent framework to support this study (Vygotsky, 1978). Vygotsky’s theory of social constructivism views learning as a highly social process and counts supportive and nurturing caregivers among the cognitive advantages the developing child would require for optimal growth and success. Within formal and informal learning settings, parents, teachers and connected adults provide benefit to the child by introducing and otherwise exposing him to important elements of a larger world and broader culture, including language which, by extension, would include songs, melodies and other forms of music (Vygotsky, 1978).
A detailed analysis of the individualized profile, needs and characteristics of the learner is key to optimal educational results for the early childhood educator. Bruner (1960, 1977) championed the process of “translation” – a careful and thorough consideration of the child's viewpoint – as a key element of the instructional process.

Bruner (1960, 1977) also considered the artful framing of experiences for a child to be a vital role of the teacher. He applauded the expert classroom use of devices, which he termed teaching aids, encouraging talented teachers to use them wisely and incorporate them with purpose to expand and clarify the experiential bases of their students. Although the technology behind today's electronic devices was nonexistent at Bruner's writings, it is a relatively safe assumption that the facile means to incorporate music either manually or electronically into the classroom would meet his criteria for beneficial teaching aids. Bruner specifically referred, in this context, to those aids to the teaching process that would otherwise be unavailable to the classroom teacher, specifically identifying “television, micro-photographic film, film strips, sound recordings and the like for such purposes” (Bruner, 1977, p. 81).

**Multiple Intelligence Theory.** Beyond the developmental theorists, the work of Howard Gardner regarding Multiple Intelligence (MI) theory is compelling in the consideration of this inquiry, particularly as it applies to what Gardner has termed “musical intelligence”. MI theory attempts to make sense of human intelligence in its many facets and manifestations and one of the categories of intelligence outlined by Gardner encompasses the concept of music and its special position in the consideration of a wider definition of intelligence (Gardner, 2004). Interestingly, Gardner (2004) contests the single view of intellectual models held by many of his theoretical predecessors including Piaget. Gardner (1993) suggests that such theories “failed to reconcile with higher levels of creativity and that they can be insensitive to the range of roles
highlighted in human society” (p. 24). Gardner (2004) justifies his argument for the classification of music as a predominant intelligence by noting that studying the interrelationship of music to broader intelligence may help us understand and appreciate the special flavor of music while underscoring its direct connection to other forms of human intellect. It is those connections and alignments, possible and probable, that this study will seek to explore.

Gardner (2004) also notes that all but the most naive or disabled individuals can appreciate the structures, keys, rhythms and tones of music. This observation serves as a commentary on the pervasive influence of music within modern society and, more generally, throughout the human condition. It is also illustrative of the widespread receptive capabilities of those who listen to or otherwise interact with music. Today, music is widely accessible, if not omnipresent; and it is overwhelmingly used to inform, edify, convince, persuade and entertain – all important aspects of learning and components of educational processes at all levels.

Gardner (2004) provides an observation specific to children of kindergarten age, recognizing that, by the time they enter school most children who have been raised within modern American culture have a mental framework for what a song should be like and they can produce a reasonably accurate facsimile of the tunes commonly heard around them. Remarkably, at this early stage of development, music intelligence often trumps linguistic facility (Gardner, 2004). Children in as early as the second year of life can begin to invent spontaneous songs exploring various small intervals, seconds, minor thirds, major fourths – sophisticated elements of musical theory and composition at a rudimentary but recognizable level (Gardner, 2004).

Although Multiple Intelligence Theory has been widely embraced in modern education, some theoreticians question aspects of the empirical strength of Gardner’s work and the practical
ramifications of his conclusions to teaching practices, or both (White, 1998). Gardner himself has expressed interest, concern and even agreement with some of those assessments, particularly those evidenced by practitioners who have fashioned or interpreted his theories to suit their own needs (Hatch & Gardner, 1993).

In some cases Multiple Intelligence Theory has been challenged because of the difficulty in measuring aspects of its classifications of intelligence or because some of the intelligences would be more accurately viewed as talents rather than intelligences (White, 1998). Where standard intelligence tests measure within finite and generally accepted terms the relative intellectual capacity of individuals, it is more difficult to measure competence within Gardner’s identified intelligences (Smith, 2002, 2008).

Still, education professionals are attracted to the recognition – inherent in MI theory – of divergent definitions of intelligence and the implications for teaching and learning. Today's educators are unwilling to embrace a single, definitive model of teaching and learning and, therefore, it should be unsurprising that they would welcome a broader and more inclusive definition of intelligence. Even with the highest of intentions, seeking out this type of diversification in learning and teaching styles, however, should not motivate or compel anyone to mold the tenets of MI theory into something they are not and were never intended to be (White, 1998).


Chapter II: Literature Review

The purpose of this chapter is to investigate and review what is currently known in the areas of music and human response; music and learning; music in the kindergarten context and music and student engagement. A brief, contingent review of literature around music therapy is included as well, as that specialty is becoming increasingly more prevalent even in typical educational settings.

The following issues were considered throughout this literature review.

1. How does music affect human response?
2. What are the connections between music and learning?
3. What is known historically about the utilizing of music in the kindergarten?
4. What information does the literature provide about music and student engagement?

Music and Human Response

Music is a language that kindles the human spirit, sharpens the mind, fuels the body, and fills the heart (Jensen, 2000). By its intrinsic nature, music is a social phenomenon promoting sharing and connection among groups and individuals. For centuries, evidenced by virtually all historical notes, writings and narratives; singing, dancing and playing music together has been a common and shared human experience (Parlakian & Lerner, 2010).

Evidence has long suggested that musical arts are central to human learning (Jensen, 2000). Music nourishes many human systems including those related to "integrated sensory, attentional, cognitive, emotional and motor capacity processes" (p. 3).

While some have intuitively believed music to be important in mental and cognitive processes, Jensen (2000) is excited at the prospect and development of recent sophisticated neuroimaging devices and protocols. The evolving technology allows medical professionals,
scientists and other concerned parties to 'see', what have been until now, the invisible internal mechanisms and functions of the human brain. Visual evidence of the changes within the brain when a human subject listens to analyzes or plays music is now possible (Jensen, 2000).

Modern brain scanning and imaging technologies enable examination and analysis of the particular areas of the brain which are activated when "recalling a noun versus a verb or when listening to music versus composing a song. We literally can look inside a brain and see which areas are most active while the person is engaged in various mental activities" (Wolfe, 2001, p. 1). Musical involvement, even the simple act of listening to music, tends to stimulate areas in the two hemispheres of the brain. Most would agree that recent brain science is suggesting that the utilization of both hemispheres of the brain relates to improved mental processes (Jensen, 2000).

Music elicits human response. Understanding this, commercial enterprises that appropriate staggering amounts of financial resources to activate positive consumer reaction to their products have come to rely on music as essential to their marketing strategies. Specifically, within the hugely competitive field of electronic media advertising, music has become the sine qua non for optimal consumer response. Huron (1989) describes a fascinating characteristic of music - its propensity to persist within the listener's consciousness, even (to the delight of advertisers) when the listener is apparently disengaged from it or apathetic to it. Advertisers understand that musically-influenced aural connections can trigger or sustain recall of the name, attributes or function of a product and that significantly strengthens the product's general marketability. It is not far-fetched to extrapolate and speculate that capitalization on similar associative and stimulative advantages of music in the context of human behavior can be imported to the discussion of musical applications in the educational realm.
Advertisers have long identified music as a key ingredient to the mental or emotional processes seeking to convince or persuade people to attend to and respond to the messages they seek to convey. Over 80 percent of television advertisements airing in the United States feature at least some musical content (Allan, 2008). Music can enhance attention and facilitate memory, two objectives very desirable to advertisers and others interested in persuading, alerting, informing or instructing (Allan, 2006).

Likewise, children can be both active listeners and consumers. The producers of the fabulously successful Sesame Street television program have strong experience working with and providing multimedia-based educational productions to young children. In their study of music in children’s television, Wolfe & Stambaugh (1993) express regret concerning the comparatively small amount of research that has been conducted on music as a factor in children’s learning. They quantified music’s incidence in Sesame Street programing, and found that over 71% of the analyzed program segments contained music (Wolfe & Stambaugh, 1993). This analysis represents a strong and convincing argument that music provides an incontestable benefit to the learning activities of small children.

In a similar way, Sell, Ray and Lovelace (1995) conducted a study wherein four-year-olds were given the opportunity to view a Sesame Street video on three separate occasions. Results showed that the repeated viewing of the videotape was the most important variable in the young children’s ability to comprehend the story’s plot and musical lyrics - even more than previewing with adult instructions. The implications of such findings are intriguing.

**Music and Learning**

Emerging research with brain imagery, and specifically with music synthesis, is captivating. Levitin (2007) allows that a great deal more study in this field can and will be
performed. He indicates, however, that neuroscience has come a long way over the last ten years and has arrived at a point where specific areas of the brain responsible for particular aspects of music processing can be isolated and studied. Cutting-edge researchers even believe that they can specify which part of the brain "causes you pay attention to things" (Levitin, 2007, p. 82).

Researchers at Stanford University's School of Medicine (Sridharan, et al., 2007) have gained valuable insight into how music influences brain mechanisms for processing information - revelations which have strong applicability to the discussion of music's alignment with student engagement, attention and learning. The Stanford research team demonstrated that music engages the areas of the brain involved with paying attention, making predictions and updating associated events in memory. The educational implications of those types of findings are obvious and exciting.

Groundbreaking research around the brain's plasticity and the intricacies of its development from birth through early childhood continue within the fields of medical and scientific research. Huttenlocher (1984) explains that network connectivity among the brain's one hundred billion neurons is formed with astonishing speed during the early years of life while the developing child experiences and makes connections to the external environment. Synapses which are routinely and repeatedly activated by the child's everyday experiences become reinforced and incorporated as part of the child's permanent neurological framework and infrastructure. Those not used repetitively, or frequently enough, diminish or are eliminated over time as the child ages (Huttenlocher, 1984).

It must be stated that it is beyond debate that the focus of learning in school (and elsewhere) should be on understanding. However, often necessary at the earliest levels of formal education is the simple dissemination of facts, rules, attributes and other information that
children must learn with automaticity or by rote. Perkins & Unger (1999) allow that young learners must memorize many varieties of practical, factual and routine content in the early childhood classroom, albeit with the expectation or hope that “surrounding these facts and routines will be larger understandings that make good use of them” (p. 95).

Background music has traditionally been considered as an effective milieu for studying. Some people cannot effectively study without the presence of some kind of music. Cockerton, et al. (1997) reported on a study whose findings suggested that those participants listening to background music outperformed those in a ‘silence condition’ on the second administration of intelligence test after the same thirty-five undergraduate students had taken a baseline test.

Music can act as a very reliable and potent message carrier. Jensen (2000) states that the value of "embedding lyrics in music is that learning this way activates emotional responses, as well as memory in the auditory cortex" (p. 84). Similarly, student learning in the classroom setting can be very much improved and enhanced by musical infusions. Music, musical elements and songs can serve as powerful pedagogical tools that tend to enthuse students, bring a liveliness and spirit to the classroom and enhance student learning in a pleasurable manner (Binkiewicz, 2006).

Good teachers attempt to provide optimal classroom learning experiences for their students. Toward this end, it is appropriate to integrate as many sensory stimulating activities - like music - as are warranted. This inclusion tends to increase student engagement in the classroom (Maroye & Uhrmacher, 2009).

Additionally, Barker (2008) has noted how the advantages of music in the classroom are multifaceted, reaching beyond the obvious properties of tonality, cadence and melody and referring specifically to the lyrics of songs. 'Catchy' lyrics can infuse joy, whimsy, happiness,
memorability and fun to classroom activities. Such positive aspects of school cultures and classroom climate should not be underestimated when considering issues of student engagement and learning (Barker, 2008).

An American Music Therapy Association's position paper entitled "Special Education: Music Therapy Research and Evidence-Based Practice" supports evidence of multiple and distinguishable connections between music and early learning even among typically developing student populations. Obvious parallels are identifiable between the vocal actions of speech and singing; between alertness to rhythm and motor skill development; between memory for tune and lyrics and memory for many cognitive aspects of typical early childhood curricula. Further, the ability of preferred music to enhance one's mood, focus and extend attention, and regulate behavior can contribute to improved student learning and social interaction. Rhythmic movement helps develop gross motor skills such as mobility, agility, balance, coordination as well as respiration patterns and muscular relaxation. Because music is reinforcing, it can be used to motivate and encourage body movement in space. (Register, 2001)

Indeed, a primary benefit of using music in instructional settings with small children is its effectiveness as a memory enhancer – a mnemonic device. The researcher's recognition of the phenomenon - that many young learners master the identity and sequence of the letters of the English alphabet through the learning of and the repetitive performance of the ABCs Song was a fundamental factor in the impetus for this study. Thaut (2008) confirms the obvious, that children learn to sing the ABCs Song with clear learning benefit, but goes a step further to proffer a plausible explanation for the ditty's longstanding efficacy. The song's basic structure, specifically its combination of melody and rhythmic phrases, serves as an "organizing element of chunking, breaking down the string of letters into smaller units coded in identifiable strings by
the melodic and rhythmic contour of the song” (p. 75). Perhaps that order of musical composition can be replicated with other melodies and other content.

Rauscher (1999) accepts that music can be a valuable tool for the enhancement of intellectual development in early childhood. Referring to her specific studies relating to the role of music exposure in the narrower realm of spatial intelligence, she contends that those studies and others inspired by them can potentially bring about a renaissance of music's status in public education curricula and policy.

Music and Kindergarten

The recognition that music should be an important and meaningful presence in the kindergarten is not a novel one. As far back as 1902, prospective teachers in Rochester, New York were expected to display proficiency in both piano and singing before they were allowed to teach in the kindergartens of that city. The 1902 Annual Report from the Rochester Public Instruction Department specifically mandates that "(e)very young lady in this department is required to play the piano and to sing before she is permitted to graduate, as musical ability is a prime requisite in the kindergarten teacher" (p. 77). The requirement was an obvious recognition of the value of music to young children and to the learning process. Fascinatingly, even at the outset of the twentieth century, at a time devoid of the accouterments of modern technology and without the availability and ease of use of today's digital audio devices the prominence of music in the kindergarten curriculum and its impact was considered advantageous and best practice.

Historically, one of the most fundamentally important parts of the kindergarten experience is the development of positive social relationships among and between the children. Godeli, et al. (1996) studied the specific behaviors of twenty-seven children exposed to folk music, rock and roll music and no music within an early childhood setting. Focusing on social
factors such as spatial location within the classroom, posture, and child-to-child interaction, they found that, generally, the presence of music in the setting favored positive social behaviors.

Yoho (2011) has discussed how, in the early grades and especially kindergarten, music is and should be an integral part of the classroom environment. In many ways music and musically related activities and exercises, including accompanying movements and pantomimes, are significant contributory enhancements to the physical, social, emotional, cognitive and language development of young children and these are major factors that influence literacy development in the kindergarten and throughout early learning (Strickland & Riley-Ayers, 2006).

Researchers have long considered and sought to identify practical links between music and learning and educators have instinctively introduced music to classroom activities. Soper (2010) touches upon his firsthand experiences and the multiple benefits of bringing music to his classroom, albeit with older students, arguing that its use can elevate student interest levels, reinforce important curricular material, and engage students in learning (Soper, 2010).

Decades ago Peterson (1958) wrote about what has become the historic connection between music and child development specifically in American kindergartens. She recognized an array of benefits from the important function of music within the kindergarten. The inclusion of music was considered best practice for the kindergarten classroom, even as far back as the mid-twentieth century, because it was believed to facilitate

- physical activity
- rest following strenuous activity
- re-living experiences in the form of dramatic play
- growing into cooperative relationships
- satisfying curiosity
- a wide range of experiences
- expressing their own feelings in many spontaneous musical ways
- feeling at home with things the grownups regarded as familiar

Bresler (1995) comments upon the prevalent use of music by teachers within early childhood classrooms in the modern era. She describes a 'subservient' approach where music is used to complement or enhance other types of subject matter and learning. Although to purists this is probably not the optimal exposure for children to artistic expressions such as music, nonetheless, these educational tactics do expose children to music, its beauty and its aesthetics as these properties are relevant to them (Bresler, 1995).

Ubel (2012) spotlights The MusikKindergarten in Berlin, Germany, representing an interesting model for using music for various learning purposes in a kindergarten context. This fascinating program frames the relationships between music and early learning within four distinct prepositional perspectives, incorporating divergent functions of music. Ubel (2012) identifies four distinct means by which music contributes to kindergarten learning and climate; education through music, education in music, education with music and education toward music. The four categories are summarized here.

**Education through music.** Here, music acts as the 'educational medium.' Teachers and staff introduce music from outside sources and, through it, encourage students to create music themselves using simple, sometimes primitive and homemade, instruments. Through these improvised songs, beats and rhythms and the active learning behaviors they elicit, children discover and examine an array of concepts ranging from the mathematical (length, proportion, time, measurement) to the physical (principles of sound generation) to the creative (Ubel, 2012).
**Education in music.** Ubel (2012) identifies this construct where music is the 'learning object' itself. Traditional musical instruments and how to play them are taught within this domain as well as vocabulary terms like 'soft and loud', 'high and low', 'short and long', 'bright and dark'. This perspective represents the closest connection to traditional American music education in the early grades where the broad topic itself could essentially be classified as a stand-alone subject in school.

**Education with music.** Education with music considers the use of music within the classroom as 'didactic' assistance. Examples in the typical kindergarten experience would include routine rhythmic chants, simple melodies or songs, and short episodes of tonality or music usually for 'extra-musical' purposes (Ubel, 2012).

**Education toward music.** Education toward music is the most complex and encompassing of the four realms. It recognizes the strong and unabating role that music does play and will play in the everyday life of the maturing child. Further, it addresses the higher-level aesthetic, cultural and artistic influences on the child (Ubel, 2012).

Brewer & Maal (2008) report that music that supports active classroom presentations can creatively introduce new information to young children and can stimulate and heighten their involvement in the activities in particular and in learning in general. Especially when dealing with young kindergarten children, where the transfer or memorization of snippets or small quantities of information is typical, a teacher's ability to attract and secure student attention is, in itself, critical to the learning process.

Researchers have identified other benefits to the liberal use of music in Kindergarten. Joyce (2011) concludes that music and, specifically, singing, bolsters many attributes that early childhood educators value in the developing child. Singing enhances 'self-esteem, promotes
teamwork irrespective of age, gender, and background, celebrates diversity, facilitates self-expression, and is just plain fun' (p. 130).

**Music and Student Engagement**

A key concern of this inquiry seeks to document, examine and interpret levels of student engagement. Skinner & Belmont (1993) explain that children's engagement in learning is influenced both by their own perceptions of teachers and, directly, by teachers' actual behaviors. Engagement is a multidirectional, or reciprocating, mechanism; both teacher and student perceptions are material to the discussion. Teachers who are perceived by their students as communicating unambiguous expectations, offering adequate responses, and extending help and assistance when needed or requested are more likely to find receptive and engaged students before them. In simpler terms, when children experience their teacher as warm, nurturing and affectionate, they feel happier and more enthusiastic in class. (Skinner & Belmont, 1993). Early childhood educators recognize and understand the essential importance of that type of affective relationship.

Teachers feel that the concept of student engagement is of paramount concern for student learning. (Appleton et al., 2008) Engagement refers to a process that has been described by researchers as either bi- or tripartite. Those embracing a two-component model (Finn, 1989; Marks, 2000; Newmann, Wehlage, &Lamborn, 1992; Willms, 2003 in Appleton et al., 2008) identify behavioral and emotional (affective) categories. The behavioral piece involves student conduct, participation, and effort. The emotional piece encompasses student interest, identification, belonging, and positive attitude about learning. Other researchers have sought to expand the paradigm to a third dimension. In such expansion a cognitive piece would include
student self-regulation, personal goals, and investment in learning. (Frederick's et al., 2004; Jimerson et al., 2003 in Appleton et al., 2008)

The interrelationships and collaboration of the teacher/practitioner and his students can result in a desirable community of learning and the outcomes of this relationship can be powerful and instructive (Wenger, 1998).

**Music therapy.** The burgeoning and evolving discipline of music therapy is a relatively new body of study and is mentioned here as an interesting and ancillary body of literature to support this study. Its proven positive outcomes with many patients being retrained on previously established activities and behaviors or who were forced to relearn skills and competencies lost to injury or illness renders music therapy an attractive allied field for exploration in this context. As this specialized therapy is effective in retraining and relearning processes, it may be logically to assume that, or, better, explore whether, similar or parallel principles and techniques might be efficacious in original or first-generational training and learning processes, too.

The American Music Therapy Association (2013) defines music therapy as the "clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program". The Association notes that the idea of music as a behavioral influence is as least as old as the writings of Aristotle and Plato.

According to the AMTA website, (2013) skillfully employing musical interventions within a therapeutic setting can lead to multiple and sweeping benefits for patients and subjects. The AMTA (2013) maintains that music can promote wellness, manage stress, facilitate the expression of feelings, enhance memory and improve communication.
Allowing that music therapy is a highly specialized and distinct field, still, much can be extracted from the careful research, conducted in its name, relating to the identification of properties and mechanisms of music (in both their essence and application) that can have extensive value in non-therapeutic settings as well. One notices legitimate and intriguing parallels to and interrelationships among the desirable affective and cognitive states and outcomes in both the therapeutic and early educational environments. Morton, et al (1990) agree that, generally, there are identifiable, positive, music-induced effects on attentional capacity, memory and reduced distractibility.

While working to identify a solid, workable connection in the connection between music therapy and effective traditional early childhood classroom environments, it is productive to heed the ongoing debate between educators and musical therapists over the efficacy and, indeed, the practical and legal appropriateness, of including such therapeutic interventions in Individualized Educational Plans of students with severe disabilities. Stephenson (2006) wonders whether an unnecessary redundancy might exist, noting that special educators have, historically, "embedded the teaching of functional skills in motivating activities and routines" through the use of musical activities which capitalize on the motivating and reinforcing effects of music in alignment with generally accepted and research-based pedagogy (p. 297). The obvious inference is that musical activities are commonly being effectively used for constructive purposes within early childhood classrooms for both special needs and typically developing students.

While more specific and focused examination and research must be conducted in this area, the similarities in usage for learning benefit are worthy of further discussion.

Summary

A review of the literature seems to suggest that music can be a powerful force to affect
human behavior in many and varied ways. Music is omnipresent in the human condition and a
strong presence in the daily lives of most people. Music can and has been used to elicit
responses and to influence human behavior. Traditionally, music has been incorporated in
kindergarten programming for the purposes of enhancing classroom aesthetics, to promote
student participation, to instigate group connections, to facilitate student cohesion and to create
an attractive, inviting and fun learning environment.

There appear to be very strong and distinguishable connections between music and
learning and the traditional use of music in kindergarten and early childhood settings appears to
be supported as an advantageous concept. The implications on human learning and specifically
on children's learning are clear.
Chapter III: Research Design

The purpose of this qualitative research study was to explore the effects of the use of music to enhance the learning and engagement of kindergarten students. A group of kindergarten teachers was interviewed in a focus group setting for the purpose of gauging their perceptions of the use of music in their practices to enhance student engagement and learning. A group of kindergarten students was interviewed, individually, to elicit their own perceptions of the use of music on their learning and engagement. Finally, the researcher made classroom visits to observe the focus group teachers’ use of music in their kindergarten classrooms to obtain data regarding students’ engagement and learning.

Research Questions

The central research questions for this qualitative inquiry are:

1. What are kindergarten teachers’ perceptions of the use of music in kindergarten lessons to enhance their students’ engagement and learning in the classroom?

2. How do kindergarten students perceive the use of music in Kindergarten lessons as affecting their engagement and learning in the classroom?

3. How does the use of music in kindergarten lessons affect student engagement and learning in the classroom as observed by the researcher?

Research Design

Creswell (2007) states that qualitative research has become more accepted as a legitimate mode of inquiry in the social behavioral and health sciences. This qualitative inquiry sought to elicit, collect, organize, synthesize and analyze information from a triad of data sources including, interviews of kindergarten teachers through a focus group method, the perceptions of kindergarten students through individual student interviews, and observational notes collected by
the researcher from classroom lesson observations of kindergarten teachers. The study was best addressed by a qualitative approach, acquiring its data through a triangulation from the above-stated aspects.

**Site and Participants**

The venue for this research study was a public, early childhood education center in a middle-to-upper socioeconomic suburban community in the northeastern United States. The school is a centralized facility that provides educational services to all public preschool and kindergarten students within the geographical bounds of the school district. In 2016, the total school population was approximately 305 students with approximately 190 in the kindergarten program and the remainder in the preschool. The average size in the kindergarten program was approximately 20.

The facility itself, constructed in 1931, is a retrofitted, bricks and mortar elementary school that, for a brief time, also functioned as a commercial property. In the early 1990s, the building was repurposed as an early childhood education center in order to focus on the specific educational needs of the community’s youngest learners. Grade stratification remains now as it was designed then – preschool and kindergarten.

Because this school serves as the centralized facility for preschool and kindergarten within the school district; the busing of many kindergarten-age children across town is necessitated. When our students move ahead to Grade One, they are assigned placement at the district elementary school in the neighborhood where they reside.

The researcher currently serves as principal of this school. At present, there are nine traditional, general education kindergarten classrooms at the center and two others that focus to varying degrees on meeting the identified special needs of children with disabilities. While half-
day kindergarten is the free and official kindergarten program for the school district, a tuition-supported full-day kindergarten option was initiated several years ago. Over time, this program has become so popular among parents that the majority of kindergarten programs are now full-day programs with the exception of two sessions of half-day kindergarten.

The students at the center come to the school from every neighborhood of the community. The composition of the town is interesting and somewhat unique in its social and ethnic heterogeneity. The school serves a community of about 25,000 residents in a town that borders a major city to its north and east. Within the town are neighborhoods of extremely upscale properties as well as neighborhoods comprised significantly of government-subsidized housing. Children from a wide range of economic backgrounds attend the center. Additionally, there is an appreciable array of native languages spoken by the children or the families of children attending the center – although the large predominance of students is English-speaking.

The kindergarten students in this study are both male and female students with a mean age of slightly more than five years. Kindergarten classroom rosters within the center are administered and managed by the school principal using input derived from various sources including the observations and professional judgments of preschool teachers, both in our center and in the greater community, parent perceptions and requests, Kindergarten Screening data and other pertinent information. Additionally, classes are thoughtfully designed with the following student profiles and characteristics in mind: gender equity, age distribution and other demographics and concerns ranging from student interrelationships to the specific geographic neighborhood within the district in which the student resides.

The focus group of educators for this study was comprised of kindergarten teachers at the school. These teachers all volunteered to be part of this research project. The
researcher/practitioner is the current principal of this school and, therefore, serves in a supervisory capacity over all of them. It is worthy of note that, prior to his appointment as school principal, the researcher was a longtime member of this specific cohort of teachers and a colleague to almost all of them.

Marczak & Sewell (1998) note that well-designed focus groups for research purposes typically consist of less than ten responding participants. Prior to the study, the researcher sent a general email to the kindergarten staff requesting participation in the study. Six kindergarten teachers responded in the affirmative to the researcher’s request for practitioner volunteers. Five of the six voluntary members of the focus group had several years experience teaching at the kindergarten level and, specifically, at this school. One of the volunteer teachers was in her first year of teaching. With the exception of that first year teacher, the kindergarten teachers had been colleagues of the researcher for many years prior to his promotion to the position of school principal in May 2014.

In this iteration of focus group, the researcher depended upon the participants to put forth their absolute freest responses to the questions asked. While the researcher is in a position of authority over the teachers who participated in this exercise, it was made very clear to the teachers that the value of this research depended upon their absolute truthfulness, forthcoming statements and deeply-held sentiments related to all of the issues and topics involved.

It was important to the researcher that no teacher/participant felt that she was viewed negatively or differently due to anything stated in the focus group setting. The researcher made sure that all of the panelists understood that there would be no negative consequences, attitudes or opinions based upon their truthfully stated attitudes, beliefs, philosophies and viewpoints.
All of the teachers willingly and with enthusiasm agreed to participate in the focus group segment of data collection. Most had been known by the researcher for a considerable amount of time; most of them were his colleagues when he was a teacher and they had expressed happiness and satisfaction upon his promotion to the position of Principal in their school. The researcher is generally well-respected by his colleagues and staff.

Many of the kindergarten teachers were veteran teachers of ten or more years. Whether there is more focus and concentration on using music within content areas and in pedagogy now as opposed to many years ago is a topic worthy of attention, consideration and study. One of the outcomes of this research could potentially be a comparison of methods, philosophies and such of teachers who were trained several decades ago versus those more recently graduating from teacher training programs. This will be interesting to assess and analyze.

**Data Collection**

The primary forms of data collection for this research study included:

1. Teacher interviews acquired through a focus group of kindergarten teachers
2. Interviews with a small sample of kindergarten students
3. Researcher observations of kindergarten classes where music has been explicitly included

In qualitative research, the strength and value of compiled information is rendered more rich, compelling and reliable when such data can be triangulated (Maxwell, 2005). Within this specific research inquiry triangulation of data will result from three identified factors. The first factor of the triangulation is the interview process with the Kindergarten teaching staff; to be accomplished through a focus group design. Factor two will consist of the transcribed results of one-on-one interviews with selected students from the classrooms participating in this study.
Finally, factor three will be the researcher’s own records and notes from his observations of the musical interventions.

**Focus groups in sociological research.** Focus groups have been commonly and successfully used in sociological research for a significant period of time (Krueger & Casey, 2015). Krueger and Casey (2014) note that focus groups very much resemble other types of group experiences. However, they have a "distinctive cluster of characteristics; they collect qualitative data from homogeneous people in a group situation through a focused discussion. They been found useful to during and after programs events and experiences they've been helpful in assessing needs generating information developing plans to improve existing programs" (p. 16).

Historically, academicians have tended to reject the use of focus groups in the context of traditional research (Krueger & Casey, 2015). Widespread arguments that the information acquired in the focus group context falls short of a standard of research quality cited concerns about the threat of data contamination or perceived degraded information attributable to the influences of group dynamics (Krueger & Casey, 2015). Since the 1980's however, opinion has shifted and awareness has increased that well-constructed focus groups carry the potential to provide rich input to advise problems of practice within the social sciences (Krueger & Casey, 2015).

Kitzinger (1995) informs that “focus groups are a form of group interview that capitalizes on communication between research participants in order to generate data” (p. 299). The conversations and interchanges arising within focus group settings have been described as "somewhere between a meeting and a conversation” (Agar & MacDonald, 1995, p. 80). Focus groups fill a valuable and underrated role in identifying fact and evidence within a research
effort. Over many years in social science research, interested parties have noticed how valuable focus groups and the data and information derived from them can be (Krueger & Casey, 2015).

The organization and execution of properly designed and developed focus groups can lead to the compilation of a significant amount of detailed, rich and appropriate data for specific research purposes. The crafting of the questions and the monitoring of the interchanges between the participants in the focus group are critical to the ultimate success of that group in providing research grade information (Krueger & Casey, 2015).

A considerable amount of thoughtfulness and care must be taken in comprising the focus group. There are many prior notions that must be addressed in the group construction process. These include identification of the roles, potential biases and preconceived notions attitudes of the participants. It is also very worthwhile in creating a schema by which the participants in the focus group are judged. Theoretically, the focus group should not be constructed to frontload or confirm it previously held bias as identified or understood by the researcher (Krueger & Casey, 2015).

**Focus groups for this inquiry.** As principal of the early childhood education center where this research was conducted, I enjoy the good fortune of having all of the school district’s kindergarten teachers, and hence, kindergarten students, assigned to the school under my authority. That is a huge advantage to a researcher in my position. That the entire population of a single elementary grade is housed in one building is fairly unique in a public school district of our size.

A single focus group of six kindergarten teachers was assembled for this aspect of the qualitative study. The focus group interview was convened and held in private conference space
at the school during a time when the teachers were not obligated to be on duty or even at school. The focus group interview lasted approximately forty-five minutes.

The group of participants who agreed to join me in this research study included teachers with a significant amount of experience working with children of kindergarten age. They have worked closely with these children and know a great deal about early childhood development, education and pedagogy. All of them have attained at least the degree status of Masters level. All have, therefore, been extensive trained in early childhood education and theory, pedagogy and curricular content.

Barbour (2008) states that the utilization of a pre-existing group in focus group research is advantageous because of a commonality of experiences that can trigger, stimulate, facilitate and fuel discussions. There can be a more natural discussion in this type of process and certain knowledge gaps that might exist among strangers are preempted.

**Creation and development of interview questions.** A primary objective of a focus group is to gather data in the form of ideas, attitudes, reactions, philosophies, opinions, behaviors, tendencies, experiences and frames of reference around a specific topic for the purpose of improving a practice or purpose (Krueger & Casey, 2015). The careful creation and crafting of interview questions to elicit and facilitate such feedback is a critical necessity toward the attainment of that goal. Interview questions should be specific enough to trigger relevant and on-target responses while flexible and equivocal enough to allow for a dispersion of responses to stimulate areas of tangential yet connected discussion (Krueger & Casey, 2015).

The objective of the focus group portion of this research is to generate raw data. The richness of the collectible data is related to the spontaneity, depth and direction of the discussions and conversations. The moderator is charged with the management of that exercise. A skillful
and tactful focus group leader understands the wisdom and value of posing open-ended questions and delving deeper into warranted issues and topics and adding incisive follow-up and follow-through questions (Krueger & Casey, 2015).

Questions focus on the problem of practice and are designed to investigate issues pertinent to it. As such they must be carefully constructed and framed. However, arguably the most important characteristic of the moderator is to guide the process in the direction it seeks to progress. The unpredictability of potential excursions in focus group discourse can be exciting and carries with it the possibility of unveiling innovative ideas and concepts and other unexpected outcomes.

A common error of inexperienced focus group researchers is their tendency to fashion and ask too many questions (Krueger & Casey, 2015). The number of questions should be comfortably proportionate to the amount of time devoted to the focus group session. Researchers should avoid eliciting only superficial, top of the mind information. More time should be devoted toward more in-depth questions (p. 68).

Within the context of focus group time management, a template for preparing questions should consider carefully the following (Krueger & Casey, 2015, p. 68):

- The complexity of the question.
- The category of questions.
- The level of participants’ expertise.
- The size of the focus group.
- The level of discussion you want related to the question.
- The amount of time required to complete an activity if any activities are involved.

Krueger & Casey (2015) also make it a point to inform what a focus group is not:
A focus group isn't just getting a bunch of people together to talk. A focus group is a special type of group in terms of purpose, size, composition, and procedures. The purpose of conducting a focus group is to better understand how people feel or think about an issue, idea, product, or service. Focus groups are used to gather opinions (p.2). In many ways, social scientists found themselves stymied by the limitations of closed-ended, question-oriented questionnaires. Krueger & Casey (2015) explain that they began exploring strategies whereby the researcher would take on a less directive and dominating role. As they write, “Respondents would be able to comment on the areas they thought were most important. In effect, the emphasis of nondirective interviewing was to shift attention from the interviewer to the respondent, placing considerable emphasis on getting into with the reality of the interviewee” (p. 3).

Even though originally academics were not interested in focus groups, market researchers embraced them beginning in the 1950s. Business was booming after the war and market researchers were charged with finding out how to make their company's products attractive to potential customers. Academics rediscovered focus group interviewing in the 1980s, often learning from market researchers. People are more likely to share when they perceive that they are alike in some ways. It may be that they have one or more characteristics in common, such as age, gender, occupation, marital status, or whole similar attitudes on a topic of discussion.

Jourard (1964) has found that individuals decide to reveal based on their perceptions of the people they are with. Homogeneity is the guiding principle for focus groups and the researcher must determine the nature of that homogeneity based upon the purpose of the study (p 98). He cautions the focus group moderator to always remember the purpose of the study:

The purpose will guide the direction, depth and intensity of analysis. Difficulties emerge
in both qualitative and quantitative analysis when there is a mismatch between analysis resources and the problem. This can result in an elaborate analysis of trivial data or inadequate analysis of a complex problem of major concern. The researcher must remember the intent of the study and regularly weigh choices against two factors: available resources and the value of more depth analysis. (p 138).

In examining the efficacy of focus group research, it is resoundingly clear that the most effective focus groups are overseen by talented interviewers and, most of the time, by unassociated or disinterested moderators (Krueger & Casey, 2015). Unfortunately, in this study that was not the case as the researcher is connected to the participants in the work setting. This is classified as an inherent weakness of this particular study.

A critical component of a superior focus group based research study is the construction of directed questions and the utilization of high-quality interviewing techniques (Krueger & Casey, 2015). Often it is excellent interviewing practice to allow focus group participants to elaborate on points and speak more fully and for a lengthy period of time on issues they initiate or seek to broaden. Obviously, this could lead to redirection of the focus of a question. However, in the interest of deriving as much information related to the issue this diversion may yield interesting, positive and important data.

Following this through to its logical conclusion, the interviewer or moderator must be talented enough to allow the discussion to go in alternative directions without losing the ‘focus’ of the group.

The following are some important factors and concerns relating to the construction and implementation of productive focus groups in the research effort.
Gathering spoken, conversational data can be challenging especially in a setting where thoughts, ideas and utterances are flying - as a researcher would appreciate and encourage in a focus group. Recording devices could be extremely helpful in this aspect of data collection but prior permission to record their participation should be granted by the participants. If such permission and allowance is not forthcoming, the researcher must be careful to record very careful notes with fidelity to the responses and attention to the details of the discourse.

The practice of interviewing professional practitioners with questions regarding their service, experience, viewpoints and expertise plays an important role in the data collection process for qualitative research efforts (Seidman, 1998). The nature of focus group interviews is typically informal or “chatty” in nature. This should result in a relatively comfortable atmosphere conducive to relaxed interchanges, give-and-take conversations and more comfortable participation and discussions. Six Kindergarten teachers at the center will be interviewed in a focus group setting. Those teachers displayed collective enthusiasm and willingness to participate in the researcher’s project.

One objective of this study included the perceptions of the efficiency and effectiveness of music in the kindergarten classroom as an aid to learning and student engagement. The following questions were designed to evoke responses that are germane to this topic.

• There is common sentiment among educators that, for very young students, music can be a powerful tool in the learning process. Do you agree or disagree? Why?

• Conversely, there is widespread opinion among early educators that, within the traditional school delivery of services, music is best left to the trained music educator. Do you agree or disagree? Why?
• Describe the best lesson in which you used music as a catalyst to learning. Describe the worst. What would you identify as impacts on student learning and engagement in those lessons?

• Student engagement is critical to the learning process and to the true understanding of content which all educators strive to effect. Within your experience have you noticed that the use of music in a kindergarten lesson affects student engagement? How?

• How can you tell when a student is engaged?

• Does the insertion of music in the kindergarten classroom impact the socio-emotional state of students? If so, how?

• What properties of music would you describe as being advantageous to learning and engagement?

As can be expected through focus group data acquisition, these basic questions evoked and stimulated responses that took the discussion through detours to several interesting and pertinent destinations. This phenomenon is actually an identified benefit of focus group research, as there can arise during the conversations issues and discussion topics that may not have been anticipated by the researcher (Krueger & Casey, 2015).

Although all of the kindergarten teachers in our community work in the same building, that is not to say or even imply that they all utilize the exact same methods of instruction, pedagogy and philosophy. While they are all female, that is about the only single distinguishing quality pertinent to them all. Some are only a few years in the profession, others have taught for decades in Kindergarten. However, they are a cohesive group, most have worked as a group for at least two years and, in the opinion of the researcher, represent some of the best instructional methodology in his experience.
I have known many of these teachers for a long time. Therefore, it stands to reason that I might suspect knowledge of some of their answers to the questions I am designing to present to them. However, it is also quite possible that the researcher might be surprised by some of the responses he elicits. It should again be noted that I have been a colleague of many of these teachers from many, many years. Only relatively recently did my job description change when I became their principal.

Creswell (2007) states the challenges in qualitative interviewing focus most often on the mechanics of the interview. The challenges are typically related to the inexperience of the interviewer with the questioning and organizational processes.

**Teacher pre- and post-observation remarks.** Kvale (1996) reports that researchers in qualitative studies have long recognized many and varied benefits of employing interview methodology in their work. Direct responses from interview subjects will often prove valuable as they emanate from the experiences and insights of identified key contributors to the inquiry process. The inherent flexibility of the interview exchanges can allow the skilled questioner to probe for additional information and can encourage greater depth in responses. The potential clearly exists for researcher opportunities to stimulate elaboration or to quickly and pointedly request clarification wherever necessary.

**Teacher observations.** Subsequent to the focus group exercise, the researcher visited the classrooms of these teachers to observe lessons including musical implementations. Of course some of the teachers do this more than others and some do it better than others. An appreciable segment of the data collection in this qualitative inquiry is connected to the observation of kindergarten teachers in their instructional roles. The researcher observed select lessons that incorporated music or musical elements as a component of their instructional design.
The observation of teachers by school principals has long been recognized and established as necessary in both supervisory and professional development functions. Most principals have had significant training and experience in the observation of teachers and therefore recognize the importance of regular classroom observations, what to look for in instructional delivery and how to record their notes and observations in manners which will stimulate and facilitate later discussion and reflection with those observed teachers.

The researcher will conduct teacher observations as a part of this inquiry. These observations will take place during lessons where the participating classroom teachers are using music as part of their instructional delivery. In order to record what he has witnessed through these classroom observations, the researcher will record and compile descriptive observational notes including narratives of the actions and behaviors of the teacher and the students as well as reflections and inferences that can be drawn from those observations. Creswell (2009) suggests a simple, two-column format to suit such a recording purpose. The researcher took the liberty to construct a third column for the purpose of this research.

The observation protocol is displayed here.

**Pre-lesson Discussion:** A summary of the pre-observation discussion.

<table>
<thead>
<tr>
<th>Teacher and Musical Element</th>
<th>Music</th>
<th>Observations</th>
<th>Inferences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Post-lesson Discussion:** A summary of the pre-observation discussion.
The researcher performed two observations each across the six participating kindergarten classrooms. The researcher met with the individual kindergarten teachers in anticipation of these classroom observations. Questions posed to the kindergarten teachers in these pre-observation discussions sought to elicit responses pertinent to the nature and structure and objectives of the lesson and the teacher's rationale for using music within it. Further, the pre-lesson discussions afforded the teachers the opportunity to predict or anticipate outcomes, results and the overall impact of the lesson relevant to improved student engagement and student learning.

Post-observation conferences with the kindergarten teachers are also prudent and were conducted. Through these teacher retrospections, the researcher gained information regarding the respective teacher’s reactions and overall summation and assessment of the lesson. Additionally, the researcher determined whether or not the teacher concluded that music enhanced or did not enhance; augmented or did not augment both the engagement level of the students and their and learning.

During the researcher’s observations it is vitally important for him to carefully notice and observe randomly selected individual students for their reactions to the music of the lesson. It is critical that the researcher be thorough and meticulous in his observations and to record precise notations of the observations. In all observations, the researcher keenly watched for indicators of student comportment, behavior, attitude, reactions, gestures and other outward signs of connection, engagement, learning or lack of same. These observations were shared with the classroom teachers in the appropriate post-observation conferences.

**Student perspectives.** Data from student interviews of eight kindergarten students was collected during this research inquiry. The students were randomly selected from a group of students whose parents had provided informed permission for them to participate in the study.
All were members of the classes of the teachers who participated in the study’s focus group. The questions used in the student interview process were as follows:

- What do you like about having music in school?
- What do you do when you hear music?
- How do you think you learn things when you sing about them?
- How do you learn the words to new songs?
- Have you ever thought about a song when music wasn't playing?

**Interviewing young children.** There appears to be an emerging reflective spirit in today's educational world with an accompanying appetite to ask students themselves about their learning processes and the activities connected to them. The questioning of very young children for research purposes must be carefully and thoughtfully planned and designed.

One does not approach a verbal interchange with a kindergarten student in the same manner he would with an older and more mature child. Graue & Walsh (1998) recommend an array of planning considerations for successfully interviewing children for data collection; contending that, generally, good interviewing practices for children mimic those for adults. However, there are peculiarities to the child interview process and researchers should understand and respect them to potentiate the best outcomes. Children's attention spans are comparatively limited. Children frequently and typically seek to please adults and will tend to answer questions accordingly. Children of kindergarten age are concrete thinkers and often believe that their answers to questions are either 'right' or 'wrong'.

The best possible interview outcomes occur when the interviewer is well-known and unequivocally trusted by the child. When the child is comfortable he is more apt to respond freely and without the hindrance of anxiety or concern related to attempts to please or satisfy the
needs of a stranger, especially one assumed to represent some type of authority (Graue & Walsh, 1998).

All eight of the kindergarten students participating in the student interviews were well known personally to the researcher, and, of course, they all had seen him countless times in multiple functions performing his duties as school principal. Additionally, as the research was conducted relatively late in the school year, the children all knew him very well, had interacted with him both formally and informally, have had personal conversations with him throughout the course of their kindergarten year and were extremely comfortable with him.

**Data Analysis**

The analysis of collected data in a qualitative research project is multilayered, multidimensional and dynamic (Corbin and Strauss, 2008). Through his work in this aspect of the research the investigator attempts to gain information about a topic, question or phenomenon and to probe to divulge inner workings and mechanisms.

**Coding interview transcripts.** It is predictable and understandable that the researcher will accumulate an enormous and sometimes overwhelming amount of narrative input and data through the interview processes. In order to make sense of all of this information the researcher must take careful and calculated steps to interpret and analyze it(Saldana, 2009).

Coding is a key analytical and organizational component of qualitative research (Saldana, 2009). The categorization of information through keywords or short, descriptive phrases enables a more thorough, careful and reliable evaluation of accumulated data (Maxwell, 2005). Recurrent patterns and repeated occurrences and connections can result in the recognition of themes. Saldana (2009) notes that a theme is a derivative of coding and is "a phrase or a sentence that identifies what a unit of data is about or what it means” (p. 139).
The coding process offered the researcher a framework for organizing, synthesizing and understanding that information (Krueger & Casey, 2015).

Generally, there are three sources of information that become available with the use of interview methodology in qualitative research; transcribed notes, the researcher's own memory and often audio or video recordings of the focus groups proceedings (Bloor, et al., 2001). Through examination and synthesis of these sources, the researcher began to notice and recognize the recurrence of specific words, phrases and ideas. Where similar or identical thoughts are presented and reinforced through repetition, the researcher acquired a better understanding that these words, phrases, insights, experiences and ideas were substantive and important in responding to the inquiry's research questions.

Krueger & Casey (2015) define coding as a mechanism for the sorting of acquired research data. The researcher had the opportunity to review and analyze transcripts of the narratives from the interviews involving the participating kindergarten teachers as well as the kindergarten students. Close and careful scrutiny and analysis of that information revealed shared or recurrent observations, insights, attitudes or beliefs. Review and inspection of that data identified themes; commonalities in responses which lend themselves to categorization.

Bogdan & Biklin (1998) offered a range of coding categories, stressing that a specific problem of practice and particular research questions will and should influence the researcher’s preferred coding structures. The categories include the following:

- Setting/Context codes which highlight general background information on the setting, topic, or subjects
- Defining the situation codes which categorize the worldview of respondents and how they see themselves in relation to a setting or your topic
Perspectives held by subject codes capture how respondents define a particular aspect of a setting

Respondents' ways of thinking about people and objects codes capture how they categorize and view each other, outsiders, and objects

Process codes categorize sequences of events and changes over time

Activity codes identify recurring types of behavior, both formal and informal

Event codes are directed at infrequent or unique happenings in the setting or lives of respondents.

Strategy codes relate to the ways in which people accomplish things.

Relationship and social structure codes inform of alliances, friendships, and adversaries as well as about more formally defined relations such as social roles.

Method codes identify your research approaches, procedures, dilemmas, and breakthroughs.

In his data analysis of interview transcripts, the researcher’s coding of data utilized in vivo coding methods. Saldana (2009) informs that in vivo coding, sometimes referred to as 'literal' or 'verbatim' coding, is appropriate for virtually all qualitative studies, but particularly for beginning qualitative researchers learning how to code data. In vivo coding is also particularly useful in educational research to "give voice to children and adolescents" (p. 74).

Development of themes. The derivative data from the interviews was reduced to a set of transcripts of responses, discussions and narratives. As a direct consequence of the coding process the researcher began to identify repetitions and recurrences in responses. Some clear and interesting commonalities resulted from the coding activities. The researcher explored these to analyze the impact of the music implementation on student engagement and learning in the
kindergarten classroom context. The evaluation of that information pointed to shared or common attitudes, beliefs, observations, frames of reference and experiences among the interview subjects. Analyzing qualitative coded data involves essentially an identification, organization and categorization of themes, which are indicated by repetitive words, phrases, concepts or insights (Saldana, 2009).

The coding process led to the identification and development of themes. Saldana (2009) defines a theme as the outcome of coding, categorization and analytic reflection (p. 139). A theme functions as a means to categorize a set of data into "an implicit topic that organizes a group of repeating ideas" (Auerbach & Silverstein, 2003, p. 38). A reflection on the relationship between outcomes and findings and the inquiry's theoretical framework and review of literature followed. Finally, a qualitative analysis and a formal, summative data interpretation of the researcher's results and findings was rendered. The researcher's summary, recognition of study limitations and suggestions for further exploration appear in Chapter V of this report.

**Storing Data**

Creswell (2007) suggests some important principles about data storage and handling:

- Always develop backup copies of computer files
- Use high-quality devices and tapes/files for audio recording
- Develop a master list of types of information gathered
- Protect the anonymity of participants by masking their names in the data
- Develop a data collection matrix as a visual means of locating and identifying information

**Limitations**

I am very excited about having conducted this inquiry to determine if and how including
music into a kindergarten curriculum can serve as a means to (1) increase student engagement in their learning and (2) increase student learning. This qualitative research project provided me with a comprehensive and structured opportunity to do that. At the same time, I am keenly aware of the limitations of this project and the implications for possible future research.

Admittedly, there were possible negative consequences of activating this particular focus group in this research. Unlike other focus groups where there is no or only a limited familiarity between the moderator and the participants; this group, by its nature, included participants who were well known to each other, if not incredibly friendly. The principal/researchers/moderator had established and enjoyed professional relationships with all of the group participants, some for several years. Further, all of the participants are subordinate to the school principal within the hierarchy of educational authority. The potential that participant responses might be blunted, sculpted, modified or affected in any number of ways because of that relationship has to be noteworthy.

Attempting to identify universal truths or to draw incontestable conclusions from such a small study in such a limited setting is admittedly problematic. This setting and the small sample of students it provided within a single, relatively small American public school represents but a glimpse of a much larger picture.

**Protection of Human Subjects**

**Ethical issues.** Those conducting research involving human subjects must carefully consider any and all ethical issues that may relate to or affect the study's participants and must vigilantly protect the interests of those parties (Fraenkel, Wallen, &Hyun, 2010). In this study, I served as the researcher/investigator and, therefore, was responsible for its data collection, monitoring, storage and security. I was charged with understanding and enforcing all of the
necessary and foreseeable precautions and protections associated with those roles. The activities of this study posed no risk of harm to any of its subjects or participants.

The specific lessons that were planned, executed and observed during this research study were aligned with those which could normally be found in a typical kindergarten curriculum and, further, are routinely used by many, if not all, of the teachers at this school. The young kindergarten students recognized no deviation from their expected day-to-day classroom experiences as a result of any aspect of this study. Written permission to allow the study to take place at this school with kindergarten teachers and students was requested of the district's Superintendent of Schools. The practitioner/researcher made conscientious judgments and purposeful actions that served to alleviate any sense of substantive change of routine or normalcy from the perceptions of the children.

No student was purposefully excluded from any class endeavor or grouping. The students involved in this inquiry consisted of both males and females, as well as White, Hispanic and Black Americans and students representing a range of socioeconomic groups from lower middle-class to upper-middle-class.

**Conclusion**

The researcher has observed throughout his extended tenure in public education, and specifically, at the early childhood level, that music can serve as a powerful and frequently underrated positive force in the education of young children.

Creswell (2007) has noted that qualitative research approaches have, over time, become appreciably more accepted as a legitimate mode of inquiry in the social behavioral and health sciences. The qualitative nature of this study was very well-suited for an inquiry of this nature.
because, as Carroll (2014) reminds, "the emphasis on depth and context found in qualitative studies provides rich source knowledge for future researchers and practitioners" (p. 64).

The study provided an opportunity to obtain and chronicle valuable information and pedagogical, philosophical and experiential insight from the contributions of a strong group of talented kindergarten teachers. Results from this study may provide evidence that music can serve as a very worthy and valuable educational tool to the astute early childhood educator; providing rationale and, beyond that, practical applications for the use of music in the kindergarten to enhance student engagement and improve student learning. As a result, this study should serve as a worthwhile resource to others desiring the best student results and outcomes for young learners in school.
Chapter IV: Research Findings

The purpose of this qualitative research study was to explore if and how the use of music in kindergarten lessons impacted student learning and student engagement. In consideration of the goals of this research project, its theoretical framework and its methodology, the following three research questions were developed:

1. What are kindergarten teachers’ perceptions of the use of music in kindergarten lessons to enhance their students’ engagement and learning in the classroom?

2. How do kindergarten students perceive the use of music in kindergarten lessons as affecting their engagement and learning in the classroom?

3. How does the use of music in kindergarten lessons affect student engagement and learning in the classroom as observed by the researcher?

This chapter presents a summary of the study site, the participants, the data collected, and a thematic analysis of the emergent themes as identified in the data in response to each of the three research questions.

Summary of Study Site, Participants and Data Collected

As reported in Chapter III, the participants for this study included six kindergarten teachers currently teaching at an early learning center which serves as a centralized kindergarten for a public school district in a suburban community in the northeastern United States.

The teachers for the study were selected based upon their availability and desire to participate in the research. There are nine kindergarten teachers in the subject school and six volunteered to be part of this research effort.

The great majority of the teachers in this study have been teaching at the kindergarten level for more than a few years. Conversely one teacher was in her first year of classroom
teaching experience. The average years of teaching for the participants in this study was 11.6, with the most experienced teacher having 19 years of teaching experience, and the teacher with the least experience having less than one year. Considering the first year teacher as an outlier and removing her experience from the calculation, the average years teaching for the remainder of the participating group becomes 15.6 years.

In gaining the perspective of the teachers to answer Research Question One, it is highly beneficial to this research process to have a body of knowledge represented by such advanced tenure within the teaching profession. Table 1 provides a graphic and descriptive representation of attributes of the kindergarten teachers participating in the focus group aspect of this research.

Table 1

*Teachers by Years Taught, Gender and Classes Taught*

<table>
<thead>
<tr>
<th>Name</th>
<th>Years of Experience</th>
<th>Gender</th>
<th>Classes Taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1</td>
<td>19</td>
<td>Female</td>
<td>Full Day Kindergarten (General Education)</td>
</tr>
<tr>
<td>K2</td>
<td>15</td>
<td>Female</td>
<td>Full Day Kindergarten (General/Special Education)</td>
</tr>
<tr>
<td>K3</td>
<td>16</td>
<td>Female</td>
<td>Full Day Kindergarten (General Education)</td>
</tr>
<tr>
<td>K4</td>
<td>18</td>
<td>Female</td>
<td>Full Day Kindergarten (General Education)</td>
</tr>
<tr>
<td>K5</td>
<td>10</td>
<td>Female</td>
<td>Full Day Kindergarten (General Education)</td>
</tr>
<tr>
<td>K6</td>
<td>1</td>
<td>Female</td>
<td>Full Day Kindergarten (General Education)</td>
</tr>
</tbody>
</table>

The table includes gender, level of teaching experience and current teaching assignments of the teachers participating in the study. All are female. Three of the six teachers are certified by the State of Massachusetts to teach young children with specialized learning needs. One of
those teachers is currently leading an integrated kindergarten class comprised of several children with identified special needs and several others who are classified as typically developing.

For this investigation, data was collected through several means. A focus group of kindergarten teachers was assembled and convened in order to best address the issues suggested by Research Question 1.

The focus group for the collective interviewing of the kindergarten teachers in this study was convened in a private conference area at the school which served as the site of the study. All six of the teachers agreed to voluntarily participate in the focus group which was conducted outside of school hours and during the teacher's’ own time.

The focus group discussion and activity lasted for approximately 45 minutes. During that time the discussion among the teachers was active, spirited, collegial and energetic. The teachers seemed to be uniformly enthused about their participation in the research effort and they were open, forthcoming and reflective in all of their responses to the questions posed in this portion of the research effort.

The questions providing the framework and serving as starting point for the focus group discussion were as follows.

- There is a fairly common sentiment among educators that, for very young students, music can be a powerful tool in the learning process. Do you agree or disagree? Why? Based on what evidence or observations that you have had?

- Conversely, there is widespread opinion among early educators that, within the traditional school delivery of services, music is best left to the trained music educator. Do you agree or disagree? Why?
• Describe the best lesson in which you used music as a catalyst to learning. Describe the worst. What specific incidents, happenstance or occurrences transpired within those lessons to make them so. What would you identify as evidence of impact on (1) student engagement and (2) student learning in these lessons?

• Student engagement is critical to the learning process and to the true understanding of content which all educators strive to effect. Within your experience have you noticed that the use of music in a Kindergarten lesson affects student engagement? How? Cite specific behavioral changes or improvements.

• What have you found can be identifiable consequences of musical use in the kindergarten setting?

• How, if at all, does the insertion of music in the kindergarten classroom impact the socio-emotional state of students?

• What properties of music would you described as being advantageous or effective within a pedagogical framework?

Research Question 1: What are kindergarten teachers’ perceptions of the use of music in kindergarten lessons to enhance their students’ engagement and learning in the classroom?

Through an iterative analysis of the transcripts, several themes were identified in relationship to Research Question 1. Those themes are presented in Table 2 and discussed at some length below.
Table 2

Themes emerging from the question: What are kindergarten teachers’ perceptions of the use of music in kindergarten lessons to enhance their students’ engagement and learning in the classroom?

Teachers observed music as having a positive impact on student learning and acquisition of information.

Teachers recognized the impact of music on attention, focus and participation - student engagement.

Teachers noticed that their students had a strong emotional response to music in their classrooms.

Teachers commented on student body positioning, movement and action as a result of introduction of music in lessons and activities.

Teachers reported music connections to student regulation.

**Teachers observe music as having a positive impact on student learning and acquisition of information.** During the focus group teachers identified several ways in which they felt the use of music impacted their students’ learning and acquisition of information. These include:

Kindergarten teachers within the focus group spoke about many issues regarding their music usage in the kindergarten classroom to enhance student learning and engagement. The overarching theme about student general affinity for music was captured in the following distinct observations by two veteran teachers. Reflecting upon the favorite song of her students, *The Big Numbers Song*, Teacher K2 spoke excitedly about its most engaging features,

- It's interactive. It's fun, it's repetitive, it's the whole component. The numbers flash up on the screen. It's repetitive, it's got a catchy tune to it. But (the students) also think they are really, really smart because they can count up to a trillion in that song!
Teacher K2 continued in the same vein, “We also do a whole, another piece with the sight words, but they get them…you hear them singing them all the time!”

Another specific example from the focus group of a classroom activity which was compelling and engaging to kindergarten students while increasing their learning was the introduction of the “Vowel Bat” Song. Teacher K2 again explained that,

We found a song entitled *Vowel Bat*; it teaches the vowels. We had been working on vowels all year long. They (students) would still mix them up. Then *Vowel Bat* came on. It goes to the theme of *Batman*. And they all got the vowel sounds! We found that one and it actually also goes with the bats we got from the Kindergarten Conference. So they (the students) can fly them around as we’re singing. But we just found the *Vowel Bat* song by chance and, like that, they all got the vowels.

Within the conversation about the use of classical music to promote increased student focus and engagement in kindergarten activities, Teacher K4 added,

Don't quote me because I don’t exactly know where I read this, but when you’re learning to read, there is a rhythmic pattern in the brain which is very similar to classical music - hearing the sounds of classical music. I definitely remember hearing that.

Teacher K1 addressed a different type of classroom musical interaction, but one to which she attributed real value as, in her view, it is indicative of how music captures the interest and spirit of young children and invites and entices them to initiate self-directed activities and, thereby, learn.

My kids love when Jimmy Fallon did that ‘Star Wars’ a cappella number, and it's on YouTube and it has silly sounds and the kids love it and they watch it so much - so now
they try, during choice time, they try to do it, like, you say the bababas. It’s a lot of fun to watch.

A basic and recurrent theme derived from the group focused on the topic of memorization and the phenomenon of repetition in early learning. K1 related a story of her student who could not remember how to sequence the letters to form his first name. K1 indicated that when she “put the letters of his name into a song, he quickly learned how to write his name.” When asked the particular music she used, she responded that she just “made it up from a nursery rhyme”, but the child remembered the order well enough from the musical intervention and K1 reported that she would hear him subsequently using the music to cue himself on the letters of his own name.

A fascinating part of the discussion centered around repetitive exposure to facts and content in the early learning environment. Teacher K3 related,

Well, if your objective is to have (students) learn something I think clearly repetition (is good) because sporadically and inconsistent doesn’t work.. I've done a lot of the repetitive songs and that really has helped kids because after a while I will say, you know, you can't use the original words you have to make up your own and for the kids that do struggle just the repetitive appearing with other kids and coming up they get the ‘oh, this is the ending chunk’, so I guess with that whereas me just drilling them or doing worksheet after worksheet they really grow much more to the song.

Teacher K3 continued, on the properties of music to improve the palatability of repetitive language and notions through songs and their lyrics. “It's like with a really good book...the more you read, the variety...it's just like a good song, they will get it over and over, over time. It's a good way to do vocabulary.”
While teachers seemed to be in agreement that repetition in lessons through music can be an important contributory factor to the learning process, they offered a caveat about the ‘shelf life’ of musical interventions. Teacher K4 suggested that, “after a while, you talk about the shelf life, we were doing the hip-hop alphabet and we had to move back a little bit for a while because we were doing it over and over and it was still effective because we were learning it but you do have to change it up.”

Several of the kindergarten teachers in this focus group lamented what they considered to be a decrease in the exposure of young students to songs, music, chants, nursery rhymes, etc. in modern home settings and even in some preschools.

Teacher K2 offered,

I feel like skills such as rhyming have been lost because there used to be so many nursery rhymes that they were singing as part of the curriculum. A lot of it used to be taught in the preschool programs, like the *Itsy, Bitsy Spider* with all the movements and *Twinkle, Twinkle Little Star* and inherently they (the children) would hear the rhymes and learn them and so many programs, because of the standards have, that’s all been cut out.

Teacher K3 echoed the sentiment, “I think with the evolution of time, we are dating ourselves, but kids would come in knowing the songs and nursery rhymes, but people today just don’t do it, they don’t do the classics. But I find now, if you hit the right preschool, they will teach them that but most kids don’t have that foundation.”

Teacher K2, who has earned state certification in teaching children with Special Needs, expanded the discussion, “You know, what’s interesting - on the new *Woodcock-Johnson*, when I was assessing the children, the nursery rhymes and the old *Snow White* and *Pinocchio*, both
questions are on the assessment and the kids don’t know the answers and it’s not their fault because they are not exposed to (it anymore)”.

Teacher K1 echoed the sentiment that students seem not to be learning songs and rhymes before they reach her kindergarten. In reference to a favorite activity that she has developed over time with her practice, she reported, “I have an activity with different words to *I’m A Little Teapot* and they could see those words and that creates a connection…it’s such a waste that (the students do not know the song).”

The kindergarten teachers in the focus group reacted enthusiastically to the phenomenon of mnemonics for the memorization of retention of data, facts and instructions. Teacher K1 boasted to the group that she remembered the Preamble to the United States Constitution from her school days as she sang “We, the People, in order to form a more perfect union”, then admitted to the group that, “I can’t say it, I can only sing it.” Teacher K4 referred the group to a Rhode Island concern, Gem Plumbing. “Remember the song Jenny 867-5309? Well, Gem Plumbing - I don’t know if that’s just Rhode Island - Gem Plumbing has that phone number and they sing (the number) at the end of their (radio commercial). Teacher K2 reminded of the popular Kars for Kids media campaign with the singing of, “1-877-KARS4KIDS”. Then Teacher K6 related, “I just sang for my students the other day the fifty states in alphabetical order. They were so impressed. (I learned it in) fourth grade music...and I still remember it.”

These recounts and anecdotes from the focus group interview solidify a general agreement and conclusion that music can be artfully used as a mnemonic device for the memorization and mastery of facts, data, instructions and other important information that young students and children need to just ‘know’. It was similarly agreed upon that, at the kindergarten
and early learning level, a significant part of the curriculum deals with the memorization and mastery of letters, numbers, information, rules and facts.

Those memories can be long-lasting and deeply rooted, Teacher K4 explains,

Ray Lynch’s *Deep Breakfast* is a great, great clean-up song and I'll never forget, I think it was (name withheld), about 20 years ago, her daughter, they were somewhere and she said, “Mom, this is the cleanup music, and it was Ray Lynch’s *Deep Breakfast* and it is something she probably might've heard in a restaurant because it was instrumental, but as soon as the kids would hear that song, their body, they would even like move to it while they were cleaning and she said that she couldn't believe it and people were all looking around and said they thought that she was this like a musical Einstein but she just remembered it from the cleanup music.

Teacher K5 connected the subjects of memory, mnemonics and the assessment of learned information and skills. “(The students) also remember the things or, whatever, the lyrics and stuff a lot better when they sing it and they can sing it back to you when you are assessing them.”

Similarly, Teacher K1 contributed,

So, when I teach my *Sentence Song* and then (the students) are writing, if I'm walking behind them and they don't have that period at the end of the sentence, all I have to do is (humming, “Don't forget the period at the end!)... I don't even have to say or sing the words, I just have to hum it.

Teacher K1 explained that her students would “hear the lyrics in their heads” and apply the rules embedded in the music to their work when she would cue them by simply humming the ending melody of her *Sentence Song*. 

Teacher K3 agreed that watchful kindergarten teachers are able to make observations and assessments of student behavior and actions to determine the extent of the impact of music on learning processes of a variety of kindergarten students.

I do find that, where we do a lot of writing in class and I do find that you can hear some of the kids singing to themselves if we have like, you know, vowel, consonant songs and stuff like that actually you can pick the kids out that musically go to that because clearly that’s how their brains work. Some kids really rely on that musical (connection).

When asking kindergarten teachers to describe the connection between learning and music, the aforementioned assessment piece can be an important consideration as are the kindergarten teachers’ observations of student growth and development in many areas and developmental realms. Teacher K4 offered,

And I think, too, it helps - I am not saying it identifies everything - but two of the kids in my class this year who came up on the testing with motor planning issues, crossing the midline, organizing things, couldn't do something like Head, Shoulders, Knees and Toes. They couldn't put the words and the movements together at the same time and something like that, sometimes - it doesn't mean that everybody who can't do it has an issue - but these two particular children couldn't sing the words and perform the movements at the same time, they could only do one or the other.

Teacher K4 revealed that she gained important insight into her students’ developmental capacities in motor skills through their interaction with the musical intervention.

**Teachers recognize the impact of music on attention, focus and participation - student engagement.** A review of the focus group transcript yielded several comments related to how the teachers felt music impacted their students’ attention and participation in learning.
All six of the kindergarten teachers participating in the focus group agreed that music in their classroom has a positive impact on student attention, focus and participation. Teacher K2 pointed out that “(the students) are much more engaged, they are moving, it brings in the whole kinesthetic thing, moving, tactile, that kind of learning.”

Teacher K4 added a point relating specifically to kindergarten or young students, the other thing, too, where I think music really works with young children is because they are so uninhibited. Where you might get, I know, like maybe kids in junior high kinda sing a song to learn something, they are going to be a little bit, you know, embarrassed in front of their friends, they might not want to do it that way where children at this age are still so young and influential that I think they’re really comfortable with singing. You know as an adult, I won’t sing around other adults but I will in front of the kids because they don’t know what a good voice is or what a bad voice is they just think it’s great to sing.

Sometimes engaged students can be ‘passively’ engaged rather than ‘actively’ engaged, noted teacher K2. “When I went over to (a district elementary school) during their writer's workshop, the teacher put on very soft, classical music. You could hear a pin stop in that classroom. It was amazing to watch. They all whispered, it was very calming; they were all very engaged in their work. It was really neat to see.”

Teacher K5 noted the effective use of music within her practice for the purpose of engaging her students and connecting them to an assigned task, “There is also that writing, there is that ‘Tools (Of The Mind)’ writing thing where (the students) have their whiteboards and you do like numbers and letters and it’s like musical chairs where you write and practice printing
strokes in time to the music.” She notes that her students are very attentive to that task because of the use of background music.

Finally, Teacher K1 connected her engaged students to a crucially important learning task in kindergarten, understanding the relationship of language to the words which represent it.

If you have the music and then you put the song, the words up with lyrics up - the words up, with the lyrics, so Frozen, that *Let It Go*, it has all the words with it, the kids love it so they can all see (the displayed lyrics) so they can read the words (as they sing). They are really building that connection (to written language).

**Teachers noticed that their students had a strong emotional response to music in their classrooms.** Another strong theme clearly evident in a review of the teacher focus group and post-observation conversation was the strong emotional response their students had to music in their classroom.

Teachers in the focus group collectively agreed that a significant component of the kindergarten curriculum relates to building socio-emotional capacity. Furthermore, the teachers agreed strongly that music impacts the affective environment of the early childhood classroom. Teacher K2 generalized, “(The students) are smiling, they’re singing, it's appropriate. They are not being silly, you can actually hear that they’re learning and they are excited to learn.” Continuing, she informed, “I have one student with low arousal who, like, the music stimulates him and he'll come back and join us.”

Teacher K6 commented on music's perceived powers as an assistive agent for both student arousal and, conversely, sedation.

Can I just say that today we did our “Treasures” assessment and it was right after snack so I used ‘GoNoodle’ and we did some yoga with calming music and it really got them
calm to do the assessments. They were really focused. And then, after that, they sat for a very long time so I used ‘GoNoodle’ again to get some of their energy out so then they could focus on social studies and (the next classroom activity).

‘GoNoodle’ is a website containing music-centric, interactive videos geared toward young children and early learners.

Teacher K3 compared the school-based musical learning experiences of her own childhood with those of current students, particularly those in her kindergarten. “It absolutely does (music makes the learning environment for children joyful and free) and so I go back to my experience as a kid I went to Catholic school and there was no music, I mean, so I was not exposed to it. I was exposed to it at home.”

It was suggested during the focus group interview that comedy, humor, silliness and whimsy all contributed to a more relaxed kindergarten classroom atmosphere and culture and that humorous music could play a major role in that environmental upgrade. From the focus group transcript:

Moderator: Is humor part of it (engagement), then?

All: Yes. Absolutely!

Moderator: So funny songs are memorable?

All: Yes!

K4: How many kids know “I Am A Pizza”? It’s just a song, but how do you ever forget “I Am A Pizza”? and the thing goes plop!

Teacher K6 reiterated that humor and comical content in music can heighten student mood, curiosity and, thereby, engagement. “I love Down by the Bay because a lot of (students) already know the song and it’s all about rhyming so when they hear the rhymes in the song they
are more able to come up with their own rhymes.” The rhymes sung in *Down by the Bay* are generally silly and laugh-inducing for small children. Sample lyrics include, “did you ever see a fish eating from a dish, did you ever see a bear combing his hair, and did you ever see a creature kissing your teacher” and all of the frivolity occurs “down by the bay”.

Deepening the discussion about the modification of the atmosphere within the kindergarten classroom, Teacher K6 indicated that a key component in the expression of a classroom culture is the attitude, affect, enthusiasm and personality of the teacher herself. She then linked all of those considerations to the subject of musical interventions and their effect on classroom culture, mood, setting and atmosphere. “Maybe it's YOUR attitude towards (music), like if you're not having fun with it, they're not going to have fun”

The kindergarten teachers in the focus group agreed that some songs and music appear to be more effective for the purposes of enhancing learning and student engagement and others less so. Teacher K2 attempted to provide reasoning and context for the observation. “I think it's the key or the octaves because I think if it's dreary sounding (it doesn't work). But if it's upbeat and ‘twinkly’ (it seems to be more effective).”

Teacher K5 offered an observation regarding the complexity or simplicity of the musical intervention. “If there are too many words, like, too many lyrics, they can get confused. Like it has to be repetitive and simple, too.”

Teacher K2 supplied the group an anecdote to demonstrate that young kindergarten students can be tough reviewers and critics of any music used within their classroom setting. Student displeasure with the musical intervention could be explained by a question of collective taste, familiarity, or adherence to established classroom routines.
Once, we pulled up the wrong sight word rap song. There is the one that they love, that (my assistant) found; they love it. We pulled up another one, it was heinous. And the kids were like, this isn’t the right song and like, no it’s not…they had absolutely no interest (in it).

On the other hand, Teacher K4 recognized the energizing creativity of using new songs in her kindergarten classroom, or even playing around with and modifying lyrics to familiar or established melodies and tunes. She termed these ‘Zipper Songs’.

With ‘Zipper Songs’ you just take a song and change it - put different words to it. Sometimes (I do that in my practice) I had, something like *Birds of a Feather Flock Together*, with animals and changing the words around like that. It's neat and creative!

**Teachers commented on student body positioning, movement and action as a result of introduction of music in lessons and activities.** Teachers readily commented on their students’ physical response to the playing of music in their classrooms. Many of the kindergarten teachers in the focus group noted music’s facilitation of body activation and movement as classic and reliable indicators of student attention and engagement. Teacher K1, “We use like modern songs, they teach them dance moves. They love that. Teacher K5 added, “And the movement, too. When you add movement to it, it gets better.”

Teacher K3 explained and elaborated,

For me the best, ‘cause I have the best time, is when you can be engaged with your body movement. If I just have them sing - I don't know how much - I would lose a bunch of them. But if I can incorporate it with a full body song, they absolutely love it, but if I just had them do an alphabet song without any movement, I would have a lot of misbehaviors.
In other words, this teacher believed that the incorporation of music and movement helped engage students in a way that reduced problem behaviors.

Teacher K2 emphasized the importance of “dovetailing”, that combination and coordination of music and movement within her classroom, “And it's not one or the other, it's both. I think you have to have both, the music with the movement.” Teacher K3 completely agreed, “(the effectiveness lies with) the coordination, it’s not just the music, it’s the rhyme, the memory, and the coordination with your body (movements).”

Teacher K2 also contributed that the movements and gestures connected to or suggested by some classroom musical injections can be especially helpful for children who might not be as verbally developed or gifted or who might have a background where English is not their first language.

With the non-verbal kids, what's interesting, though, like in “A is for Apple”, you have the movement with it, they will do the movement, they might not do the singing. Then by the end of the year they are singing it. I've had kids that were nonverbal or ELL (English Language Learners) and then you do it enough times and they are singing it by the end of the year.” Teacher K3 agreed. “It’s that multisensory approach.

**Teachers reported music connections to student regulation.** Interestingly, all of the teachers commented on how music helped their students to regulate their behaviors in a number of ways.

Within the focus group interview, several of the kindergarten teachers mentioned or acknowledged properties of music to help promote and develop student regulation within their classrooms. Teacher K3 noted that, “I use music for self-regulation. I find that it helps them (students) have nice movement but also in a way that they are able to express themselves and to
control themselves as well - so there’s different songs for different usage.” Teacher K3 steered the discussion slightly toward an interesting phenomenon about the use of music as a de facto "authority figure” in the classroom. “Because they (students) can tune a human voice out completely… they are so used to hearing (your voice).” Teacher K4 concurred, “It keeps you from being that ‘Charlie Brown’ teacher. It’s the music that’s telling them that it’s time to clean up. It is not the teacher that’s telling them to ‘come on, clean up’. Because they tend not to hear you.” Several of her colleagues in the focus group agreed strongly with this observation, nodding their heads in approval.

She continued,

I have a very hyper class and, when you talk about self-regulation, instead of me saying, “Shh, it's too noisy, it's too noisy”, I'll say, “I can't hear the music” - we then know it's too noisy and the kids, instead of going “Shhhhh” to each other will say (whispers) “I can't hear the music”. So it definitely helps, you're not always the bad guy. You're not always telling them to be quiet - it's, the music’s controlling the whole atmosphere. I do that a lot with the instrumental (music).

Kindergarten teachers recognize that transitions within their classrooms can sometimes be difficult and challenging for their young students. A ‘transition’ in the context of the early childhood classroom is the discontinuation of one lesson or activity and the immediate onset of a subsequent one. Often, young children have not yet emotionally mastered the practice of ceasing a high-interest activity in favor of one which may not hold a similar fascination or attraction. Teacher K3 commented upon her use of music within the transition process.

(Music also helps with) transition things as well. Like with songs and chants you get them (to attend) immediately. I’ll do my transitions and I always put the music on and,
you know, when it’s time to stop and clean up and it doesn’t matter if it’s really loud or really soft, they are trained to hear it and once they hear it they know it’s time to stop and clean up.

She provided an example, “I was going to say that, so transitions like, ‘One, two, buckle my shoe, three, four something…’, they're so stunned, they’re just listening and I have their attention. Sometimes they are stunned and I get their attention.

**Research Question 2: How do kindergarten students perceive the use of music in kindergarten lessons as affecting their engagement and learning in the classroom?**

In order to best address Research Question 2, several interviews of kindergarten students were conducted. Upon the securement of their parents’ permissions, eight randomly selected students from the rosters of the kindergarten teachers participating in this research were interviewed by the researcher. Table 2 categorizes these students by age, gender and class assignment.

Table 3

*Students Interviewed by Age, Gender, Class Assignment*

<table>
<thead>
<tr>
<th>Student</th>
<th>Age</th>
<th>Gender</th>
<th>Assigned Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>6 years 7 months</td>
<td>Female</td>
<td>Full Day Kindergarten</td>
</tr>
<tr>
<td>S2</td>
<td>6 years 5 months</td>
<td>Female</td>
<td>Full Day Kindergarten</td>
</tr>
<tr>
<td>S3</td>
<td>6 years 9 months</td>
<td>Female</td>
<td>Full Day Kindergarten</td>
</tr>
<tr>
<td>S4</td>
<td>5 years, 9 months</td>
<td>Male</td>
<td>Full Day Kindergarten</td>
</tr>
<tr>
<td>S5</td>
<td>5 years, 11 months</td>
<td>Female</td>
<td>Full Day Kindergarten</td>
</tr>
<tr>
<td>S6</td>
<td>6 years, 2 months</td>
<td>Male</td>
<td>Full Day Kindergarten</td>
</tr>
<tr>
<td>S7</td>
<td>6 years, 8 months</td>
<td>Female</td>
<td>Full Day Kindergarten</td>
</tr>
<tr>
<td>S8</td>
<td>5 years, 10 months</td>
<td>Female</td>
<td>Full Day Kindergarten</td>
</tr>
</tbody>
</table>
Each of the eight kindergarten students was interviewed by the researcher in comfortable and familiar spaces adjacent to the students’ respective classrooms. The interview format and questions were designed to maximize the comfort level of the students while respecting and attending to the typical attention span of five and six-year-old children. The questions posed to the students appear below. The interviewer/researcher allowed all student interviews to proceed in an ad hoc, organic, conversational direction so as to appear to the students as normal interchanges and not artificial and formal inquisitions.

The student interview questions were:

- Do you like having music in school?
- What do you do when you hear music?
- How do you think you learn things when you sing about them?
- How do you learn the words to new songs?
- Have you thought about a song when music wasn’t playing?

The student interview questions listed directly above served as a framework and starting point for the interviews with the students. The researcher did allow the interview process to be somewhat flexible with these young students to allow them to be as forthcoming as possible with answers and insights that would better, more completely and more appropriately respond to
Table 4

*Themes emerging from the question: How do kindergarten students perceive the use of music in kindergarten lessons as affecting their engagement and learning in the classroom?*

<table>
<thead>
<tr>
<th>Students report an affinity and taste for music.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students report an emotional response to hearing music.</td>
</tr>
<tr>
<td>Students display an ability to recall and acquire information through musical lyrics.</td>
</tr>
<tr>
<td>Students report actions and behaviors caused, triggered or facilitated through music.</td>
</tr>
<tr>
<td>Researcher notes difficulty, awkwardness in the student interview process.</td>
</tr>
</tbody>
</table>

**Students report an affinity and taste for music.** All of the kindergarten students interviewed responded, to one degree or another, that they "liked" music. Their individual responses to the researcher’s question, “Do you like having music in school?” were:

- **S1:** Yes.
- **S2:** Yes.
- **S3:** Yes.
- **S4:** Yes.
- **S5:** Yes.
- **S6:** A little.
- **S7:** Yes. Yes. Yes.
- **S8:** Yes.

Although very short, typically yes/no answers were elicited from the students throughout the interview process, there were snippets of elaboration from some of the interviewed students with regard to the question, what do you do when do you hear music. Student S1 explained, “I like to dance to it. I like to sing. Because I really want to be a rockstar when I grow up.” Student
S2 added, "I like to listen to (music)." Student S3 indicated his enjoyment with having music in school, “Because you get to learn music.”

The fact that music in school can be ‘fun’ was mentioned multiple times by students.

Researcher: Do you like having music in school?
S3: Yes.

Researcher: Is it fun to learn that way (with music)?
S7: Yeah. Yeah. Yeah!

The researcher delved a little deeper in conversation with Student S5 to provide insight to the scope of the student’s experiences with music. This student’s relationship with music beyond the walls of the school and classroom was revealed.

Researcher: Do you like music?
S5: Yes!

Researcher: Do you like it in school?
S5: Yes!

Researcher: Do you like it at home?
S5: Yes!

Researcher: Do you ever play it in the car?
S5: Yes!

**Students report an emotional response to hearing music.** Keen attention to student socio-emotional capacities is significantly important to kindergarten teachers. It is generally accepted that the establishment of a basic student comfort level within the learning setting must occur before any real learning does. The following exchange between the researcher and Student S7 is instructive in this discussion.
Researcher: What do you like about (music)? What does it make you feel or make you do?
S7: Happy!
Researcher: Um. You told me that you were happy when songs came on, how would (your teacher) know that you were happy? What would you look like?
S7: Smile.
Researcher: Smile? What else? Would your body move or would you be still?
S7: Move.

A similar exchange with Student S5:

Researcher: When, if you're in a classroom and music comes on, do you like that?
S5: Umhum.
Researcher: How would you let (the teacher) know that you like it? What would you do?
S5: I would stand up and dance!
Researcher: You would stand up and dance? Wow! ‘Cause that means you're happy, right?
S5: (nods).

In a different vein, but still another example of the use of music in the kindergarten classroom to promote emotional stability and regulation is reflected in this interchange with Student S6:

Researcher: Do you ever use music in school? Do you ever hear music?
S6: Yeah.
Researcher: Like when?
S6: When it's rest time sometimes.
Researcher: Oh, you put it on for rest so that when… is that soft music or loud music?

S6: Soft.

This unsolicited comment from Student S1, was proclaimed with much pride and is demonstrative of feelings indicating a solid connection with music and an understanding of its importance in her life. “I have lots of favorite songs!”

**Students display an ability to recall and acquire information through musical lyrics.**

An interesting finding which presented within many of the discussions which occurred beyond the specific interview questions with the kindergarten students pertains to the memorability of song lyrics. None of the kindergarten students could spontaneously and specifically identify items, information or other proof of their learning specifically through music. However, within the more impromptu and deeper discussions beyond the formal interview questions and, when prompted by the researcher to lyrics of familiar songs, all of the students were able to display memory and lyric retention capabilities and learning which had occurred through songs and music.

Researcher: When you hear a song on the radio can you remember some of the words so you can sing the next time

S2: Yes.

Researcher: Ok. When you were a little kid do you remember learning the ABC's?

S1: Yeah. You sing them.

Researcher: Do you think you can learn about things with music?

S2: Yes.

Researcher: Like what?

S2: Like with some of the songs we sing in music class with (Music Specialist).
Researcher: What is your favorite song?

S3: The songs in music.

Researcher: The songs that (Music Specialist) sings?

S3: Yes.

Researcher: Is it easy to remember words to songs, or hard?

S1: Easy and hard.

Researcher: Is it easy for you to learn the words in your new songs? Do you remember them?

S2: Yes.

S3: I can remember songs when I just hear them.

Researcher: Let me ask you this question - tell me the ABCs.

S3: (Begins to recite alphabet)

Researcher: Wait a minute. Wait a minute! Is there a song that goes to that? Can you sing it? Go ahead...

S3: (Sings the entire alphabet song)

Researcher: Stop there. You got them all.

Researcher: What's your favorite song that (teacher) uses in class?

S4: The song about the numbers.
Researcher: Do you know the ABC’s?

S5: Yes.

Researcher: How did you learn them? When you were a little kid?

S5: I don't remember.

Researcher: Did you ever sing a song?

S5: Yes.

Researcher: What song?

S5: I forget.

Researcher: Did you ever sing it in a song?

S5: I forget.

Researcher: (begins to sing ABC song)

S5: (joins in with 100 percent accuracy)

Researcher. Do you think you can learn things by listening to songs?

S3: Yes.

Students report actions and behaviors caused, triggered or facilitated through music. Through the extent of the kindergarten student interviews the researcher observed and noted repeated student responses which were indicative of the fact that the children enjoyed hearing music because it stimulated them and enabled or licensed them to move their bodies about the classroom. The following quotations are illustrative of that finding.

Researcher: Do you like music?

S1: I like to dance to it. I like to sing. Because I really want to be a rockstar when I grow up.
Researcher: Do you like to move and to dance? When, sometimes when the music comes on, do you start to dance? Do you like music?

S2: Yeah.

Researcher: Do you like music?

S8: Yes.

Researcher: Why?

S8: Well, you know, I got a pretty high singing voice when I sing the Social Skills song

**Researcher notes difficulty, awkwardness in the student interview process.** A telling general observation made by the researcher throughout the student interviews is that these children, as is a normal tendency for many of their age, seemed to be overly concerned with gaining the approval or approbation of the adult within their situation – the researcher. The researcher gained a strong sense that the children were trying to arrive at perceived “correct” responses. It was as if their points of reference for expected behavior and response were prior interchanges with their teachers in such a one-to-one school setting. Unfortunately, in the minds of many students, those interactions are perceived as evaluative in nature. The researcher believes that it is possible, if not likely, that these children braced themselves for an encounter of assessment rather than a pleasurable, evocative, thoughtful and edifying conversation.

Throughout the student interview process the researcher noticed a proliferation of the answer, “I forget”. Most of the student utterances and responses were short in length. Single-word and single-phrase answers like, “yeah”, “yes”, “no” and “I don't know” were extremely common.
Research Question 3: How does the use of music in kindergarten lessons affect student engagement and learning in the classroom as observed by the researcher?

To complete the triangulation of data sources for this research project, the researcher conducted classroom observations of two lessons, classroom activities or exercises for each of the six teachers - twelve observations in total. Each of the observed lessons utilized music, songs, or musical elements as foci for the lesson or classroom activity. For each of the observed lessons, the researcher participated in both pre- and post-lesson discussions with the respective classroom teachers.

Table 5

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Musical Lesson</th>
<th>Purpose</th>
<th>Key Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1</td>
<td>&quot;Hello Neighbor&quot;</td>
<td>Social Conventions</td>
<td>Routine in classroom</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Facilities Student Interaction</td>
<td>All children respond with high energy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Language Patterning</td>
<td>At &quot;circle &quot;children move from classmate to classmate for social interaction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Following Instructions</td>
<td>All mastered words and gestures</td>
</tr>
<tr>
<td>K1</td>
<td>&quot;Sentence Song&quot;</td>
<td>Rules of Basic Sentence Construction</td>
<td>Sound effects at ending are humorous, anticipated and memorable</td>
</tr>
<tr>
<td>K2</td>
<td>&quot;Big Numbers Song&quot;</td>
<td>Rote Counting</td>
<td>Students showed high excitement when teacher initiated song. Some students in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number Recognition</td>
<td>group take behavioral and lyric cues from others. Benefit of repetition and pat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Choral Participation</td>
<td>terning in song is obvious.</td>
</tr>
<tr>
<td>K2</td>
<td>&quot;Sight Word Song&quot;</td>
<td>Sight Word Recognition</td>
<td>Upbeat &quot;rappy&quot; tune; high participation and connection, 100% involvement. Tough</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Letter Exposure and Recognition</td>
<td>to keep up but all try!!</td>
</tr>
<tr>
<td>K3</td>
<td>&quot;Musical Printing&quot;</td>
<td>Pacing</td>
<td>Fascinating use of music as timing and focusing device to assist practice of wr</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Timing</td>
<td>iting strokes. Soft music, classical, no lyrics. Not a sound in class (except</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Connecting Sound to Action</td>
<td>music)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Writing Stroke Practice</td>
<td></td>
</tr>
<tr>
<td>K3</td>
<td>&quot;The Freeze&quot;</td>
<td>Regulation</td>
<td>High energy, high engagement. Lots of movement around</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gross Motor Planning</td>
<td>classroom until song stops at</td>
</tr>
<tr>
<td>Grade</td>
<td>Song</td>
<td>Activity/Activity</td>
<td>Details</td>
</tr>
<tr>
<td>-------</td>
<td>--------------</td>
<td>-------------------</td>
<td>---------</td>
</tr>
<tr>
<td>K4</td>
<td>&quot;Pirates' Song&quot;</td>
<td>Sequencing Narrative Events from One to Ten</td>
<td>Vivid lyrics and narrative begin with sequence of events from one to ten. Rhyming patterns mastered. Lots of lyric memorization.</td>
</tr>
<tr>
<td>K4</td>
<td>&quot;Macarena Math&quot;</td>
<td>Skip Counting Practice Choral Participation Body Expression Gesture/Movement Recall</td>
<td>Dancing is engaging. Much motor planning and movement as students count by ones, twos, fives and tens to the Macarena dance.</td>
</tr>
<tr>
<td>K5</td>
<td>&quot;Alphardy&quot;</td>
<td>Alphabetic Recognition Initial Phoneme Practice Student Regulation Embedded Movements</td>
<td>Long standing class routine. Obvious that some are weary of the activity deep into the year. Some distractedness.</td>
</tr>
<tr>
<td>K5</td>
<td>&quot;School Rules&quot;</td>
<td>Learning Rules and Behavioral Expectations</td>
<td>Good focus point for upcoming lesson. Attention focused. Embedded vocabulary words (respect, responsible).</td>
</tr>
<tr>
<td>K6</td>
<td>&quot;Social Skills Song&quot;</td>
<td>Precursor to Social Skills Lesson</td>
<td>Introductory portion of lesson. Sung by class in front of weekly social skills lesson. All students have mastered lyrics and gestures of all three verses.</td>
</tr>
<tr>
<td>K6</td>
<td>&quot;Colors&quot;</td>
<td>Learning Correct Spelling of Color Words</td>
<td>Sung to Bingo. Every color word spelled in lyrics. Repetitive, sung as part of daily exercises.</td>
</tr>
</tbody>
</table>
Table 6

*Themes emerging from the question: How does the use of music in kindergarten lessons affect student engagement and learning in the classroom as observed by the researcher?*

<table>
<thead>
<tr>
<th>The researcher noted the power of music as attention gathering device.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The researcher recognized a modification of the atmosphere of the classroom in virtually all of the lessons observed.</td>
</tr>
<tr>
<td>The researcher noted that use of music as a facilitator of memory and rote learning - mnemonic properties were important and evident</td>
</tr>
<tr>
<td>The researcher noted the efficacy of music as a tool for the positive self-regulation of the students.</td>
</tr>
<tr>
<td>The researcher noted the non-universality of the musical interventions.</td>
</tr>
</tbody>
</table>

*The researcher noted the power of music as attention gathering device.* It became indisputably clear to the researcher very early in the observation process that the attention-gathering properties of music in the kindergarten classroom were significant and substantial.

A common theme through all of the observed lessons is that children are generally affected by the initial notes or opening strains of a musical number. It seems that, in general, Music provokes an immediate response, student attention is acquired or held; students sense a change in the school environment, if not in the learning environment.

There is also a noticeable sense of anticipation or, if the song or music is used routinely or ritualistically, a clear student understanding of what will be the next classroom occurrence, activity or lesson.

It was commonly observed that students naturally gravitate toward the source of the music, whether that is the teacher herself or an artificial audio or audio/visual aid, i.e. computer, monitor, television, radio, or similar sound source. This phenomenon was especially prevalent in some of the routine or daily activities within the observed classrooms. In many cases classroom
routines were buttressed or in other ways improved by the use of music. For example, in Teacher K1’s classroom, a morning routine called “Hello, Neighbor” was a repetitive, social-skill building activity. This musical inclusion allowed the children to perform their greeting rituals in a fun way, learn and master defined social skills, and to practice and learn to understand the common language contained in typical human greetings and interactions.

The researcher recognized a modification of the atmosphere of the classroom in virtually all of the lessons observed. In any every observed musical activity the atmosphere and tone of the classroom were affected and modified. Upbeat tunes generated student action, movement, dancing, twirling, singing, participation and other signs of emotional arousal. Calmer, more sedate, ‘classical’-style music brought with it an appreciable and noticeable dissipation in student movement, vocal articulations, general classroom volume and student activity.

It is probably incontestable that healthy young children love to move about. Almost across the board through these many classroom observations it was noted that kids seem to feel that music in the classroom provides them the license to move and gets them away from their seats and tables. Whether such movement is unconscious or subconscious is part of a different discussion. However, the researcher’s observational notes are rife with indications of children moving their hands, arms, legs, fingers, clapping, swaying and nodding.

Music was observed as a calming factor during resting times or other, more sedate dayparts. Conversely, music was observed as an energizing, activating and enthusing factor in other contexts.

The researcher noted that use of music as a facilitator of memory and rote learning - mnemonic properties were important and evident. All of the lessons conducted and
observed as part of this study represent classroom activities which were repetitive, routine, ongoing and in some cases very long-standing. This is important to note. It signifies a realization among kindergarten teachers that early learning places a high emphasis on the memorization of facts, data, instructions and the like and that a significant portion of a typical early learning curriculum attends to learning by rote. In the large majority of observed lessons with a musical infusion, the attention to the language of lyrics and the desire to have students learn concepts or instructions embedded in lyrics was a key objective of many of the kindergarten teachers. The *ABC Song*, the *Big Numbers Song*, the *Sight Words Song*, *Our School Rules*, the *Sentence Song* and others can be cited as evidence to the notion that the mnemonics of simple lyrics and music and the ease and palatability of repetition within that milieu is key to the development of the memorization and rote learning which is, and always has been, a very significant facet of early learning.

A strong example of the use of mnemonics in a kindergarten song, both through its lyrics and the required student gesturing participation is the *Alphardy* number. Teacher K4 reports that her kindergarten class uses this song in its opening group circle exercises almost every single school day and that it has done so since the beginning of the school year in September. The song is performed to a rough amalgam of the tunes of *I’m A Little Teapot* and the *Jeopardy* game show theme. *Alphardy* marches through the alphabet sequentially from A-Z, accentuating letter identification, the most typical phoneme associated with the respective letters, and an ‘action’ word beginning with the letter with an accompanying gesture/movement to represent the word and to solidify it in the memory of the student participant. Teacher K4 reports a noticeable and generalized improvement in student performance on the formal kindergarten Letter Identification assessment which she attributes to her usage her daily usage of *Alphardy*. 
The researcher noted the efficacy of music as a tool for the positive self-regulation of the students. It is difficult for early learning, or any classroom learning for that matter, to occur without student cooperation, compliance and buy-in. The level of age-appropriate student behavior and student regulation within a kindergarten setting is important in order that a suitable and effective learning environment be established. The extent to which music can have an impact on student behavior and regulation is important for a teacher to understand and develop. The Our School Rules song is a strong example of this. The lyrics of the song are simple. It is sung to the tune of Frere Jacques.

Our school rules.
Our school rules.

We are safe, we are safe!
And we are responsible.
And we are respectful.

Our school rules! Our school rules!!

In the observed lesson using Our School Rules, the teacher subsequently facilitated a broad group discussion around safety, responsibility and respectful behavior. The teacher reported that, generally speaking, responsibility, respectfulness and individual and group safety are concepts that can stretch the limit of kindergarten students’ understanding. However, she reported that routinely singing the song provides a context for the embedded vocabulary words and concepts and that, over time, the students learn the meaning of responsibility, respect, and safety. K6 reported that vocabulary development is one of the reasons she maintains that music in kindergarten programming can be important. She stated, “You would be surprised the vocabulary they can get through its use in a song or chant.”
It was fascinating to observe a musical element being utilized for its timing elements in the *Number Printing* song with teacher K3. During this exercise, K3 provided students (who had convened at circle) with a small whiteboard which they placed comfortably in their respective laps. She also furnished them with whiteboard markers and erasers. To begin the lesson, K3 described to her students a specific writing stroke she wanted them to practice. For the observed lesson that stroke was a diagonal from top right to bottom left.

K3 prepared the group then played the music from a CD player. The music could be described as a piece of nondescript classical music. The students were instructed by the teacher to repetitively print the targeted diagonal line on their whiteboards and to do so until the music paused. The researcher observed a disparity of competencies in the printing task; some children were competent if not adept while others clearly struggled. Some of the children were noted to on-task and printing the strokes to the beat of the music. All of the children concluded their printing when the teacher stopped the music. K-3 noted to the researcher that the music in this case served as a “timekeeper and an authority”. She also suggested that the activity was one of her favorites because, “the engagement of the kids in this exercise is usually off the charts.”

**The researcher noted the non-universality of the musical interventions.** It is tempting for those who enjoy music themselves and who notice its potential and untapped value in early learning settings to make grandiose and unrealistic generalizations supporting universally positive acclamations of music in the early learning context. One important observation throughout this research is that certainly not all children respond to musical interventions in an identical manner. Some do not participate, some opt-out or act out, some are seemingly negatively affected or overwhelmed by the sensory input. Some are seemingly apathetic.
It was reported by many of the kindergarten teachers that when music is used repeatedly and for a lengthy period of time some children become disinterested or disaffected. One veteran teacher recognizes the paradox. Although the repetitions and redundancies allowed by music can serve hugely productive instructional purposes, music used repetitively and for long durations can also “lose its juice”. Another longtime teacher relates that “like anything else, music can have a ‘shelf life’” of effective use.

Additionally, there are children who plain just do not like music or who do not relate to it in a typical way.

**Summary of Findings**

The findings of this study were derived through three distinct means of data collection. First, a focus group comprised of six kindergarten teachers at a suburban public school in the northeastern United States was assembled. The second aspect of the data triangulation involved one-to-one student interviews between the researcher and eight kindergarten students. All of the interviewed students were class members of kindergartens taught by the teachers involved in the focus group interview. The third leg of the data collection tripod consisted of analysis of documents rendered from the researcher's classroom observations of two lessons conducted by each of the kindergarten teachers for a total of twelve classroom observations.

Regarding student learning in kindergarten classrooms based on the data collected:

- Kindergarten teachers believe that classroom music has a positive, recognizable and detectable effect on student learning.
- Kindergarten teachers report that the memory skills of kindergarten students are developed and refined through the inclusion of attractive, entertaining, retention-assistive pedagogical means in the classroom.

- Kindergarten teachers recognize the mnemonic benefits of songs, chants lyrics, melodies and other musical elements for the communication, retention and mastery of information, facts, data, rules, instructions and admonitions.

- Kindergarten teachers perceive that music has a capacity to serve many instructional, environmental, student regulation and behavioral objectives.

- Researcher observations indicate that music positively affects student learning as the result of its many and diverse properties including tonality, melody, lyrics, beat, rhythm, memorability and invitation to collective participation.

Regarding student engagement in kindergarten classrooms based on the data collected:

- Kindergarten students, as self-reported, generally like music and enjoy having it in their school experience.

- Kindergarten teachers believe that classroom music has a positive, recognizable and detectable effect on student engagement.

- Researcher observations indicate that the inclusion of music substantively changes the affective environment of the kindergarten classroom.

- Researcher observations indicate that music positively affects student engagement as the result of its many and diverse properties including tonality, melody, lyrics, beat, rhythm, memorability and invitation to collective participation.
Kindergarten teachers noticed evidence of improvement and enhancement in both student learning and engagement that those teachers attribute in many ways to various properties of music in the kindergarten classroom.

Kindergarten students responded with a favorable impression of music in school and were able to demonstrate memory of lyrics regarding their favorite songs boat in school and in other settings.

Researcher observations supported teacher contentions that student learning and student engagement were positively affected by the use of music in a wide range of classroom lessons and kindergarten activities.
Chapter V: Discussion of the Findings

This chapter provides a summary of key findings from this inquiry related to the inclusion of songs, music and musical elements in kindergarten lessons and the effects of that inclusion on student learning and engagement. A discussion will follow related to the connections to the research literature as well as to the theoretical frameworks which informs this qualitative study.

The findings and, by obvious extension, the interpretations of those findings can be used to inform kindergarten teachers who are charged with the important foundational education of their young students.

Revisiting the Problem of Practice

There has been an ongoing, identifiable and pronounced emphasis on standards-based accountability in public education within the United States at local, state and national levels (Miller & Almon, 2009). The intense focus has often resulted in the elimination or reduction of music programs in schools. At the same time, the attention to “academics” and learning within narrowly defined content areas, even for very young learners, has triggered increased pressure upon policymakers to eliminate or deemphasize certain types of educational programs like music and art.

Likewise, similar pressures exerted upon classroom teachers under such rationale have caused a growing number of early childhood educators to reduce or minimize their use of music in the everyday instruction which occurs in their classrooms (Miller & Almon, 2009).

Data from the US Department of Education supports this perception. Parsad & Spiegelman (2012) report that student access to arts education and the quality of that
instructional programming continues to be a matter of high concern to policymakers, school administrators, educators, students and families across the nation.

It has become apparent to many kindergarten teachers, however, that accessing certain powers and properties of music within their daily instructional practices can benefit their students’ learning and improve aspects throughout the broader learning process. These teachers recognize that their students’ responses to music and elements of music in the classroom - intrinsic musical properties such as rhythm, beat, mood, melody and lyrics - solidify music’s connections to language, listening, speaking, reading and writing (Kohb, 1996).

Feierabend (1990) supports the contention that a wide-ranging variety of exposures to and opportunities with music and music-based activities in early childhood tends to elevate and bolster an assortment of invaluable developmental skills in the lives, learning and development of young children.

Review of Methodology

This qualitative study exploring the effects of music in kindergarten lessons on student learning and engagement was designed to address the following three research questions:

1. What are kindergarten teachers perceptions of the use of music in kindergarten lessons to enhance their students’ engagement and learning in the classroom?

2. How do kindergarten students perceive the use of music in kindergarten lessons as affecting their engagement and learning in the classroom?

3. How does the use of music in kindergarten lessons affect student engagement and learning in the classroom as observed by the researcher?

A triangulated approach to data acquisition was employed to effect optimal exploration of the study’s research questions. Interviews of kindergarten teachers and kindergarten students
were conducted to seek to acquire the perceptions, beliefs, experiences and philosophies of the study participants.

To expedite and streamline the interview process with the kindergarten teachers, a focus group of those teachers was assembled and a focus group interview was conducted, moderated by the researcher. The flexible and *ad hoc* discussion inherent through a focus group with teachers of divergent backgrounds and talents is valuable. The interactions, interchanges and conversational back-and-forth of the multiple person discussion allow for a relatively unrestrained discourse unveiling a cascade of ideas, perspectives, observations, reactions and responses to ideas and discussion among professional colleagues. The dynamics of the group interview capture reactions, agreements and shared perspectives that cannot be collected through individual, one-to-one interviews (Hatch, 2002).

The researcher himself transcribed the dialogue acquired from both the kindergarten teacher focus group and kindergarten student interviews. Although time-consuming and laborious, this exercise in data collection, scrutiny, synthesis and analysis was ultimately surprisingly productive and more fruitful than anticipated. It afforded the researcher an invaluable familiarity with the response content of the interviews for his subsequent analysis and synthesis of data and the identification of emergent themes.

Complementing the data derived from the teacher and student interview transcripts was a document review of the researcher’s notation protocol from the twelve kindergarten classroom observations. A review for similarities, cohesion and harmony among data sources served to strengthen the legitimacy of the findings of the study.

Chapter V is organized to present the following: a presentation and discussion of the inquiry’s major findings, discussion of those findings in relation to the theoretical framework,
discussion of the findings in relation to the literature review, final analysis, significance of the study, limitations, recommendations for future research and the researcher’s personal reflections.

**Discussion of the Major Findings**

Examination of the transcribed data collected from both the focus group interview of kindergarten teachers and the interviews of kindergarten students combined with a document analysis of researcher observation protocol from kindergarten classroom lessons, several themes noted and discussed in Chapter IV serve as basis for these major findings.

- Kindergarten students, as self-reported, generally like music and enjoy having it in their school experience.
- The memory skills of kindergarten students are developed and refined through the inclusion of attractive, entertaining, retention-assistive pedagogical means in the classroom.
- Kindergarten teachers recognize the mnemonic benefits of songs, chants lyrics, melodies and other musical elements for the communication, retention and mastery of information, facts, data, rules, instructions and admonitions.
- Kindergarten teachers believe that classroom music has a positive, recognizable and detectable effect on student learning.
- Kindergarten teachers believe that classroom music has a positive, recognizable and detectable effect on student engagement.
- Kindergarten teachers perceive that music has a capacity to serve many instructional, environmental, student regulation and behavioral objectives.
- Researcher observations indicate that the inclusion of music substantively changes the affective environment of the kindergarten classroom.
Researcher observations indicate that music positively affects student learning and engagement as the result of its many and diverse properties including tonality, melody, lyrics, beat, rhythm, memorability and invitation to collective participation.

Kindergarten students, as self-reported, generally like music and enjoy having it in their school experience. Each and every one of the eight kindergarten students interviewed for the purposes of this research project reported that they enjoyed or liked music. Additionally, all of the students reported that they liked having music in their classrooms and school settings.

The memory skills of kindergarten students are developed and refined through the inclusion of attractive, entertaining, retention-assistive pedagogical means in the classroom. Through all aspects of the data collected for this research study it was determined that the mnemonic benefits of music, the positive effect on the memory skills of students for the retention of facts, data, instructions, and rules was identifiable and uncontested.

Kindergarten teachers recognize the mnemonic benefits of songs, chants lyrics, melodies and other musical elements for the communication, retention and mastery of information, facts, data, rules, instructions and admonitions. Virtually all of the kindergarten teachers interviewed during the focus group setting maintained that they personally had committed facts, data or information to long-term memory because of its inclusion within a melody or within song lyrics.

During the focus group conversation, Teacher K-1 referred to her elderly mother's remarkable ability to remember verbatim song lyrics from a half a century ago. “that even worked with my mother. My mother had no language but she could sing lines from (long ago memorized) tunes.
The same teacher, Teacher K4, reported to the focus group; indeed, sang to it the entire Preamble to the United States Constitution. She had learned and mastered the verbiage as a teenager through the legendary television program, *Schoolhouse Rock*.

Teacher K4 told the focus group that a Rhode Island-based plumbing and heating company had obtained an iconic telephone number from a famous rock and roll song to use for its customer contact number. She sang the number aloud for the members of the focus group.

Teacher K6 shared with the focus group that she had recently sung all of the United States’ state capitals to her kindergarten students. She had learned the song which carried those lyrics when she was in the fourth grade.

**Kindergarten teachers believe that classroom music has a positive, recognizable and detectable effect on student learning.** This finding pertained to a range of musical genres, styles, expressions and presentations from upbeat, energizing music to calming, reflective and sedate forms. Kindergarten teachers related many experiences with activating students’ attention and interest with music. In the same vein, but with an opposite effect, many teachers reported - and the researcher also observed - the student regulating effects of slower, more contemplative and sedate music within the kindergarten classroom setting.

**Kindergarten teachers believe that classroom music has a positive, recognizable and detectable effect on student engagement.** Kindergarten teachers report that students generally attend very well to classroom lessons and activities which are initiated, augmented or content-dependent upon songs, music or musical elements. Student self-report that they like music in their classroom and that they often display a physical response to it which serves to connect them more to the teacher, their classmates and the activity.
Kindergarten teachers perceive that music has a capacity to serve many instructional, environmental, student regulation and behavioral objectives. Kindergarten teachers report using music in a variety of ways within their respective classrooms. This was also demonstrated strongly through the researcher-observed lessons as well where music was used, in diverse ways and for an array of learning purposes; as an attention grabber, a means of focus, a mood enhancer or stabilizer, an artificial authority, a milieu or conduit for data or content and an activator of movement and student expression.

Researcher observations indicate that the inclusion of music substantively changes the affective environment of the kindergarten classroom. In his position as principal of the school serving as the setting for this research effort, the researcher has had countless previous opportunities to visit the kindergarten classrooms of all of the teachers participating in this study. Such history and background knowledge combine to furnish a baseline for the researcher’s frames of reference and provide a clearer and more amplified understanding of the respective ‘typical’ classroom settings and environments for these teachers.

Armed with this prior knowledge of typical classroom atmospheres and environments, the researcher becomes appreciably better able to gauge the effects of music inclusion in these classrooms and to determine what, if any, contrasts or distinctions might be attributable to the use of music there.

Across the board and throughout his observations, the researcher witnessed and recognized changes and differences, mostly toward the positive and beneficial, in student activation, student attention, classroom affect and mood, student participation, student activation, and student/teacher, student/student and student/task connectedness.
Researcher observations indicate that music positively affects student learning and engagement as the result of its many and diverse properties including tonality, melody, lyrics, beat, rhythm, memorability and invitation to collective participation. Through essentially all of his classroom observations the researcher was captivated by the diverse and useful qualities and properties of music, its multifaceted functionality within the educational setting and its specific utilization by the educators to leverage many benefits. The researcher witnessed the value of music in the early childhood classroom as a mood enhancer, attention grabber or divertor, mnemonic aid, unifier of student and group purpose, timing device, transition catalyst, pseudo authority, entertainer, conduit of content and context for shared and collective educational experiences.

In reviewing the data collected within this inquiry, the researcher has arrived at certain conclusions in response to the defined problem of practice.

The reduction of music programming and the general decline of the role of music in modern kindergartens and early learning settings is troubling. Early and consistent exposure to all of the Fine Arts - including music - is inarguably beneficial to young children. As educators have lately felt constrained by real or perceived pressures upon them to focus more extensively (spend more time) on cognitive-based or ‘academic’ aspects of early learning, it becomes even more essential for them to learn, understand and fashion and implement imaginative and innovative uses of music within their own kindergarten instructional practices. The benefits of such response and resultant behaviors seem to be both noteworthy and acknowledged.

The findings of this study reveal sometimes subtle, perhaps understated, but very advantageous functionality connected to music's usage in kindergarten classrooms.
As mentioned earlier, evidence collected from three data sources is triangulated. It, thereby, becomes richer, stronger and more demonstrably true than is evidence gained from a single source.

Through close scrutiny and analysis of that data triangulation, the researcher has found that:

- kindergarten students and teachers are generally attracted by, and have an affinity for music and like or enjoy its presence in the educational setting
- music is an effectual conduit for assorted instructional, environmental, temporal and socio-emotional purposes in the kindergarten classroom
- music is an enormously effective mnemonic device for learning the didactic and ‘automatic’ data associated with early schooling, i.e. memorizable facts, instructions, context-specific vocabulary. This observation is supported through both teacher articulation and student interview responses. It was conspicuous in the researcher’s classroom observations, as well
- music can become a ‘language’ in the kindergarten classroom, a ‘voice’ for various purposes related to student learning and engagement
- kindergarten teachers utilize properties of music for a range of effective purposes corresponding to student engagement and learning. Music is used in the kindergarten classroom for various productive reasons as mentioned by the interviewed teachers and observed by the researcher
Discussion of the Study Findings in relationship to the Theoretical Framework

As mentioned in Chapter I, Child Development Theory and Multiple Intelligence Theory have informed this qualitative inquiry involving music and its effects on the learning and student engagement of kindergarten students.

Child Development Theory. The theories, work, and research of Jean Piaget and other developmental psychologists, such as Jerome Bruner and Lev Vygotsky, helped to frame this research inquiry. Their collective research and discoveries related to human learning, specifically in early childhood development lend importance of both the teaching and learning processes contextual to the realms of young children and early childhood education.

Piaget held that children learn most naturally and effectively when their teachers or other authority figures allow and encourage them to interact with their environment, manipulate it to their needs and dispositions and experiment with it and challenge or question it – all within the scope and parameters of the developmental stage of growth they had attained (Abrahams, 2005). Piaget believed that a predominant role of a teacher was to recognize children's development and arrange and provide opportunities for exploration and discovery (Abrahams, 2005). It is evident and demonstrated through both the focus group transcripts and the researcher’s observational notes from pre-and post lesson conversations that the teachers have a thorough understanding of that concept.

Piaget also referred to the learning child as a “little scientist, constantly constructing and reconstructing theories about the world and how it works” (Dimitriadis & Kamberelis, 2006, p. 174). The kindergarten teachers and the researcher himself noticed - almost without exception or variance - that the infusion of music in the kindergarten classrooms had an identifiable impact or effect upon the atmosphere, affect and learning environment within the setting of the classroom.
An appreciation of the interconnectedness between the young, developing child and the context of his environment is necessary for those seeking to explore, appreciate and understand the processes of early learning. Music in the kindergarten classroom affects that environment in a variety of ways which have been uncovered, identified and discussed in this research. Morehouse (2012) reminds of the Piagetian thesis that “children must be understood on their own terms, p. 55) and elaborates,

children have maintained a tacit, unexpressed relationship with music throughout the course of human history. Building on incremental steps, especially in the wake of contemporary research by Piaget and others, we are gaining new information that encourage taking a fresh look at this relationship. On the one hand, the abstract realm of quantum physics is offering us startling, unprecedented answers to fundamental concepts. On the other hand, there are very real, not-so-abstract children living and playing all around us. As Piaget seemed to realize, far from being the “empty vessels” as defined by earlier thinking, young children, too, are contributors of unprecedented answers – if we have the eyes to see and, more relevant to this investigation, the ears to listen. (p. 55).

For many developmental psychologists, the effects of social interaction and cultural exposure upon learners, specifically younger learners, are interesting and important paradigms. Russian psychologist Lev Vygotsky is considered by many as a champion of this movement. Dimitriadis & Kamberelis (2006) confirm that Vygotsky’s theories about conceptual development “marked a shift from the traditional developmental models of learning and development toward understanding individual mental functioning as situated within social and cultural activities.” (p. 196).
Many of the classroom lessons observed and recorded by the researcher had a strong and obvious social context built into them. Several of the songs observed within these lessons, specifically *Hello Neighbor*, *Our School Rules* and the *Social Skills Song* pertain specifically to the interaction of young students among and between themselves and to the learning, building, and practicing of age-appropriate social skills in the kindergarten program and classrooms.

Beyond the social “subjects” contained and embedded in all of the aforementioned songs and music, the unspoken invitation for large group participation, the choral structures, possibilities and expectations built into virtually all of the kindergarten musical lessons and activities demonstrate the teachers’ collective recognition of the strong social context that music provides within a kindergarten classroom. One kindergarten teacher (K4) mentioned the fact that there is “power within the group and, for some children, it gives them that extra ‘oomph’ they need to participate in class and, hopefully, succeed. Another teacher (K5) added, “I love when I see that see that, especially with children who are English Language Learners! It really IS taking a risk.”

Indeed, Vygotsky’s theory of social constructivism recognized learning as a highly social process (Vygotsky, 1978). Vygotsky viewed and respected supportive caregivers as cognitive advantages to the developing child(ren) within their care. Nurturing support and human connection were seen as beneficial to the optimal growth and learning success of the child. Vygotsky believed that parents, teachers and connected adults, within both formal and informal learning settings, provided benefit to a child by introducing and otherwise exposing him to important elements of a larger world and broader culture (Vygotsky, 1978). Such inclusion encompasses language acquisition and development which, by understandable extension, would include songs, chants, melodies and other forms of music (Vygotsky, 1978).
Through his observations of the twelve classroom lessons, the researcher recognized the multiple manners and methods in which the kindergarten teachers accomplished this. Both the complexity of the lyrical language and the facility with which the children seemed to master it, particularly in songs like the *Pirate Song* and the *Sentence Song* was observed and noticed by the researcher. The role of music as an aid in language acquisition for young children is incontestable.

Bruner (1960, 1977) also considered the artful framing of experiences for a child to be a vital function of the teacher. He identified and applauded the expert classroom use of devices, which he termed teaching aids, encouraging talented teachers to use them wisely and incorporate them with purpose to expand and clarify the experiential bases of their students. While today's technology was but a fantasy and pipe dream to Bruner, it is a relatively safe assumption that a quick and easy means to incorporate music either manually or electronically into the classroom would meet his criteria for beneficial teaching aids. Bruner specifically identified “television, micro-photographic film, film strips, sound recordings and the like for such purposes.” (p. 81). Corresponding devices of the current era would include everything from Internet-enabled computers to tablets to smartphones all of which are available and readily used by each and every kindergarten teacher who participated in the study.

**Multiple Intelligence Theory.** Beyond the developmental theorists, the work of Howard Gardner regarding Multiple Intelligence (MI) theory was compelling in the consideration of this inquiry, particularly as it applies to what he termed “musical intelligence.” (Gardner, 2004). MI theory attempts to make sense of human intelligence in its many facets and manifestations and one of the categories of intelligence outlined by Gardner encompasses the concept of music and its special position in the consideration of a broader consideration of intelligence (Gardner,
One of the kindergarten teachers (K3) interviewed in the focus group noticed the differentiation suggested here and commented, “Some kids’ minds are just not for music (and) that’s why we mix it up, we don’t use it all day. What I am saying is that (with some students) you can use as many songs as you want and they still can’t learn the words. I am not saying not to expose them to it, what I am saying is that it is not one shoe that fits everybody.”

Interestingly, Gardner (2004) contests the limited viewpoint of certain intelligence models held by many of his theoretical predecessors including Piaget. Gardner (1993) suggests that such theories “failed to reconcile with higher levels of creativity and that they can be insensitive to the range of roles highlighted in human society” (p. 24). Gardner (2004) justifies his argument for the classification of music as a predominant intelligence by noting that studying the interrelationship of music to broader intelligence may help provide understanding and appreciation of the special flavor of music while emphasizing its strong connection to other forms of human intellectual capacity. This study sought to unveil and investigate those connections and alignments.

Gardner (2004) also notes that all but the most naive or disabled individuals can appreciate the structures, keys, rhythms and tones of music. This observation serves as a commentary on the pervasive influence of music within modern society and, more generally, throughout the human condition. It is also illustrative of the widespread receptive capabilities of those who listen to or otherwise interact with music. Today, music is widely accessible, if not omnipresent; and it is overwhelmingly used to inform, edify, convince, persuade and entertain – all important aspects of learning and components of educational processes at all levels.

Discussion of the Study Findings in relationship to the Literature
An investigation of the role that music plays on student learning and engagement in the kindergarten classroom can be aligned to a review of the associated literature presented above in Chapter II. The discussion below examines the findings of this study against the major topics presented there. The following sections are organized into these categories; Music and Human Response, Music and Learning, Music and Kindergarten, and Music and Student Engagement.

**Music and human response.** Jensen (2000) states that music is a “language that kindles the human spirit, sharpens the mind, fuels the body, and fills the heart” (p. 3). For centuries, evidenced by virtually all historical notes, writings and narratives; singing, dancing and playing music together has been a common and shared human experience (Parlakian & Lerner, 2010).

Evidence has long suggested that musical arts are central to human learning. (Jensen, 2000). Music nourishes many human systems including those related to "integrated sensory, attentional, cognitive, emotional and motor capacity processes" (p. 3). All of those categories were identified repeatedly through the data collection aligned with each leg of the triangulation in this study. Teachers, students, and the researcher all shared connections to each of the above identified capacities and processes within their responses and observations.

**Music and learning.** Emerging research with brain imagery, and specifically with music synthesis, is captivating. Levitin (2007) admits that much more study in this specific realm can and will be performed. He boasts, however, that neuroscience has come far over the last ten years and has arrived at a point where specific areas of the brain responsible for particular aspects of music processing can be identified, isolated and studied. Cutting-edge researchers even believe that they can specify which part of the brain "causes you pay attention to things" (p. 82).
Researchers at Stanford University's School of Medicine (Sridharan, et al., 2007) have gained valuable insight into how music influences brain mechanisms for processing information – revelations which have strong applicability to the discussion of music's interface with student engagement, attention and learning. The research team at Stanford demonstrated that music engages the areas of the brain involved with paying attention, making predictions and updating associated events in memory (Sridharan, et al., 2007). The educational implications of those types of findings are obvious and exciting.

Groundbreaking research around the brain's plasticity and the intricacies of its development from birth through early childhood continue within the fields of medical and scientific research. Huttenlocher (1984) explains that network connectivity among the brain's one hundred billion neurons is formed extremely rapidly during the early years of life while the developing child experiences and makes connections to the external environment. Synapses which are routinely and repeatedly activated by the child's everyday experiences become reinforced and incorporated as part of the child's permanent neurological framework and infrastructure. Those not used repetitively, or frequently enough, diminish or are eliminated over time as the child ages (Huttenlocher, 1984).

With the constraints of this study, the participants had no capacity to access the scientific, high-tech instrumentation referenced above or even its esoteric output. However, while kindergarten teachers may not be able to comment on the brain’s topography, its inner workings or physical structures, they are trained to detect the learning capacities and the growth and development of their students. primarily through noticing behaviors and assessing performance.

**Music and kindergarten.** The recognition that music should be an important and meaningful presence in the kindergarten is not a novel one. As far back as 1902, prospective
teachers in Rochester, New York were expected to display proficiency in both piano and singing before they were allowed to teach in the kindergartens of that city. The 1902 Annual Report from the Rochester Public Instruction Department specifically mandates that "(e)very young lady in this department is required to play the piano and to sing before she is permitted to graduate, as musical ability is a prime requisite in the kindergarten teacher." (p. 77). The requirement was an obvious recognition of the value of music to young children and to the learning process.

Fascinatingly, even at the outset of the twentieth century, at a time devoid of the accouterments of modern technology and without the availability and ease of use of today's digital audio devices, the prominence of music in the Kindergarten curriculum was considered advantageous and best practice.

Historically, one of the most fundamentally important parts of the kindergarten experience is the development of positive social relationships among and between the children. Godeli et al. (1996) studied the specific behaviors of twenty-seven children exposed to folk music, rock and roll music and no music within an early childhood setting. Focusing on social factors such as spatial location within the classroom, posture, and child-to-child interaction, they found that, generally, the presence of music in the setting favored positive social behaviors (Godeli et al., 1996).

Music and student engagement. A key concern of this inquiry seeks to document, examine and interpret levels of student engagement. Skinner & Belmont (1993) explain that children's engagement in learning is influenced both by their own perceptions of teachers and, directly, by teachers' actual behaviors. Engagement is a multidirectional, or reciprocating, mechanism; both teacher and student perceptions are material to the discussion (Skinner & Belmont, 1993). Teachers who are perceived by their students as communicating unambiguous
expectations, offering adequate responses, and extending help and assistance when needed or requested are more likely to find receptive and engaged students before them. In simpler terms, when children experience their teacher as warm, nurturing and affectionate, they feel happier and more enthusiastic in class. (Skinner & Belmont, 1993). Early childhood educators recognize and understand the essential importance of that type of affective relationship. Such sentiment was displayed throughout all aspects of the research.

Teachers feel the concept of student engagement is a consummate concern for optimal learning (Appleton et al., 2008). Engagement refers to a process which has been described by researchers as either bi- or tripartite. Those embracing a two-component model (Finn, 1989; Marks, 2000; Newmann, Wehlage, & Lamborn, 1992; Williams, 2003 in Appleton et al., 2008) identify behavioral and emotional (affective) categories. The behavioral piece involves student conduct, participation, and effort. The emotional piece encompasses student interest, identification, belonging, and positive attitude about learning. Other researchers have sought to expand the paradigm to a third dimension. In such expansion a cognitive piece would include student self-regulation, personal goals, and investment in learning. (Frederick's et al., 2004; Jimerson et al., 2003 in Appleton et al., 2008).

The interrelationships and collaboration of the teacher/practitioner and his students can result in a desirable community of learning and the outcomes of this relationship can be powerful and instructive (Wenger, 1998). Teacher K2 told the focus group how she knows when her students are engaged. “They are smiling, they’re singing, it's appropriate, they are not being silly, you can actually hear that they’re learning and they are excited to learn.”

**Conclusion**
This qualitative study’s objective was to investigate the impact of music on student engagement in kindergarten lessons and its impact on student learning as perceived by teachers, as observed by the researcher, and as commented on by the students. The study was conducted through a qualitative research approach using a triangulation of data sources to investigate the following research questions.

1. What are kindergarten teachers perceptions of the use of music in kindergarten lessons to enhance their students’ engagement and learning in the classroom?
2. How do kindergarten students perceive the use of music in kindergarten lessons as affecting their engagement and learning in the classroom?
3. How does the use of music in kindergarten lessons affect student engagement and learning in the classroom as observed by the researcher?

Data was gathered through three sources for the purpose of seeking answers to the research questions. First were transcripts rendered from a focus group interview of kindergarten teachers conducted by the researcher at an early childhood education center within a public school district in a suburban community located in the northeastern United States. In addition, transcribed data were collected from a series of eight interviews of kindergarten students from the class rosters of teachers participating in the focus group interview. Finally, the researcher's own notes provided documentation of his classroom observations of twelve kindergarten lessons, two lessons each which were planned and conducted by the teachers participating in the focus group interview.

The results of the study indicate that student learning and student engagement are both enhanced and heightened by the inclusion of music in kindergarten lessons and classroom activities. Kindergarten teachers cite a number of divergent qualities and properties of music
which are useful to them in affecting the mood of the learning environment, serving as a mnemonic milieu for instructional data and fact-based learning and activating and energizing their students. Kindergarten students generally report an affinity for music and acknowledge its importance and desirability within their school setting and their broader worlds. The researcher’s observations evidence the effectiveness of music as a learning tool, attention grabber, object of student focus and curiosity and means of assisting the learning of language, age-appropriate concepts and the embedded informational data and instructional material therein.

**Significance of the Study**

This study presented a high degree of specific significance to the teachers who participated in it and to the researcher who investigated it. The information and experiences shared and the resultant findings, discoveries and understandings will all be beneficial to the instructional strategies of these teachers moving forward and to the broader learning culture and environment of the school in which we all work.

In a more general sense and regarding the issues pertinent to the identified problem of practice; it became evident, if not obvious, that music holds a special place in early learning and, therefore, in early childhood education. This is true for the number of reasons which have been identified throughout this report and specifically in this chapter. Learning with, through, by, and in the arts is crucial to optimal child development and the more data which can be mined to support that conclusion, the higher the degree of understanding for the policymakers and stakeholders who are closely involved in the decision making around best practice for early learners.

**Limitations**
The key findings of this study are significant and invite further discussion, argument and inquiry. Admittedly, and by definition, however, this study is small and limited. Data for this study has been acquired through means of teacher interviews with a small number of kindergarten teachers, the observation of a relatively limited number of kindergarten lessons and the challenges aligned with the reliability of the interview process when dealing with very young, five-year-old, children.

Still, much rich information was gained and collected through the exercises of the teacher focus group and the classroom observation portions of this qualitative study’s triangulation of data. The researcher believes, however, that there were inherent data acquisition weaknesses unveiled throughout the kindergarten student interview process. As mentioned earlier in this work, the process of interviewing small children can be and was challenging. The responses and reactions of virtually all of the student responders were, in the opinion of the well-experienced researcher, markedly stilted by a variety of potential factors. These factors included the students’ obvious and natural desire to please an authority figure, the students’ internalization of the one-to-one interaction as a type of assessment where their responses could be right or wrong. In the informed viewpoint of the researcher, the interviewed students desired their answers to be “right” at the same time they did not know exactly what “right” was.

The researcher was extremely close to this research inquiry. It was designed and conducted by him in a school in which he served as principal and with participating teachers and students that he knew very well and, in the cases of several of the teachers, that he had known for over a decade in capacities both as colleague and, more recently, supervisor. There are any number of potential relationship and interpersonal forces at play here which would not be present in a similar or broader study conducted more at “arm’s length”. While researcher bias is always a
consideration for which to watch, assuage or prevent, it becomes more possible in research paradigms like this. Understanding the concern, the researcher took all the steps possible to “bend over backwards” to be as objective as possible in all of his work throughout this project.

**Validity**

It is acknowledged that personal/researcher bias can prove to be an impediment to research goals. The researcher has worked in kindergarten classrooms as an instructor, teacher and principal for almost twenty-five years. It has been previously revealed and disclosed that the researcher has long been a proponent of music's usage, utility and effectiveness in kindergarten learning applications for a variety of reasons. Researcher bias is a concern.

Triangulation of data refers to the employment of two or more sources, methods or approaches to an analysis, study or investigation (Denzin, 1989). The rationale for a triangulated approach in a qualitative research effort such as this is to lessen, mitigate or eliminate the deficiencies often associated with single-investigator research and concomitant personal biases (Lincoln & Guba, 1985).

**Future Research**

Some of the outcomes, acquired knowledge, conclusions and problems of this study suggest the need for and the direction of future research to enhance the body of knowledge surrounding the potential of music in kindergarten classrooms to benefit the learning and engagement of young children. This study represents an investigation of the problem of practice in a very small school with a limited number of participants. Data, information and direction from this study will be very useful in consideration of teaching methods and pedagogies within this specific school. It is anticipated, if not obvious, that a wider study involving more
participants in different schools, jurisdictions and locations would yield a more generalizable result.

The researcher would find it interesting to gain a firmer and more indisputable grasp on the actual learning outcomes of the students through musical interventions. Much of the data collection within this work hinged on the perceptions of the kindergarten teachers. While they talked about and commented on student learning and engagement; there was a great deal of subjectivity within their articulations, discussions and conclusions.

Beyond that, the researcher would find it fascinating and instructive to welcome more in-depth studies on the relative efficacy of certain types of music, certain songs, and certain musical interventions. The teachers in this study inarguably granted that some songs, snippets, tunes, melodies and musical interventions are much more effective than others for enhanced student learning and engagement. Why? What makes them so? How might we better identify them? Why are some more effective than others? What is it about some types of music or beats or melodies or chants or raps that make them more attractive or compelling to the students and therefore makes them more effective carriers of information? Responses from some teachers indicated that they had ‘chanced’ upon music that was effective, engaging, learning enhancing and entertaining. It would be advantageous to begin a research study surrounding the questions inherent in that discovery.

**Recommendations for Practice**

Findings from this study appear to indicate a general heightening of important socio-emotional connections between kindergarten teachers and their students. More robust affective connections between those groups result in superior relationships and interrelationships. In this study, teachers reported better opportunities to work with students; students report that they
enjoy having music in school. The culture, setting and atmosphere considered necessary for strong learning outcomes is improved by the thoughtful use of music in the kindergarten classroom.

**Operate more in the affective domain.** Early learning is emotional. The early educational professional realizes that everything from the aesthetics of the classroom (visual and auditory) to the establishment of atmosphere and culture within the kindergarten must adhere to this very important precept. Music has a distinguishable impact on emotions, mood, and atmosphere. Activate it.

**Use music as an effective pedagogical tool in the kindergarten.** The versatility of music as a pedagogical tool has been revealed and confirmed. Multiple effective uses of music in the classroom for learning have been suggested. Music can serve the early educator as a milieu for embedding information and data in lyrics, a common classroom language, a timing device, a leitmotif for recurring classroom events and activities, a means to smooth classroom transitions, a way to surprise, activate or energize, a calmative, pacifying or soothing influence, an instrument to make the many repetitive objects, products and functions of early learning more palatable, more enjoyable and more fun.

**Let musical pedagogies ‘stretch’ the kindergarten teacher.** Using music within their practice is out of the comfort zone for some teachers - yet these educators almost universally recognize the advantages and benefits of music in their practices. Teachers are encouraged, within this context and any number of others to take risks to ‘dip their toes’ into a new pedagogical ocean.

All of the students interviewed for this study reported that they liked music and that it was a prevalent presence both in and outside of the school setting. While the number of students
in this research represents a very small sample from which to attempt to extrapolate generalized truths, the fact that there was unanimous sentiment is worthy of note.

**Allow music to promote creativity in the classroom.** It is difficult if not impossible to teach creativity. Perhaps the best alternative is for the kindergarten teacher to demonstrate, identify and highlight creativity in her classroom.

In the focus group, Teacher K4 talked about creating ‘Zipper Songs’, which are the end products of assigning new lyrics to familiar or memorable melodies. The students implicitly understand that such an activity and exercise is fun, inventive, creative and challenging.

**Use music to mitigates or erase the tedium of repetition.** Also in the focus group, Teacher K1 related that she was fascinated watching her kindergarten students try to emulate and replicate a Jimmy Fallon Star Wars skit which was compelling and meaningful to them. As reported, the students attempted again and again to master the complexity of the comedian’s acapella vocalizations. Repetition is necessary in many facets of rote and early learning. Music can alleviate the monotony of such recurrent exercises.

**Sing. Play. Experiment with sound and entertainment.** Good teaching is entertainment. This simple and perhaps obvious observation may be the key to increased student engagement.

**Be cautious with the perceived benefits of music.** Understand that using music in the early learning classroom is not a panacea. One size never really fits all. There are many, many different ways to trigger and activate most of the positive impacts that music precipitates in the areas of instruction, promoting positive classroom atmosphere and solidifying learning relationships. Teachers should understand that the elements necessary for improved student engagement are contained within many philosophies, methodologies and practices.
Recommendations for Educator Professional Development. It is hoped that many of the findings of this study may be helpful to those charged with designing, planning and implementing professional development for early learning instructors and educators. Constructive and viable professional development in this area will result in an increased number of early education professionals becoming more competent and confident in using music within their practices. It will also help to extend their knowledge bases around the properties and functions of music within early learning and, specifically, kindergarten settings.

Recommendations for Teacher Education Programming. As determined through the findings of this study, the use of music in early learning settings is an underutilized early educational asset with many valued properties to serve many valuable functions. A suspected reason for that underutilization might be that teacher preparatory programming has not generally devoted attention and focus to the versatility of music in early childhood pedagogy.

It is hoped that the data, information, and findings contained in this study might inform and prompt policymakers and decision-makers within teacher preparation programs to pay more attention to the uses of music, in many distinct ways, as an enhancer of learning and of student engagement, particularly in the context of young learners.

Recommendations for Collaborative and Reflective Professional Discussions. The researcher also hopes that an outcome derived from his work lends an encouragement and invitation to teachers in any subject, at any level, to come together regularly in a free-flowing, idea-rich, active and stimulating atmosphere (such as that presented by the focus group) in order to share information, ideas, experiences, trials, errors, etc.

The focus group for this research project was obviously designed for and geared toward the study’s own identified purposes. However, one of the key reflections of the researcher at the
conclusion of his project yielded a realization of how significantly valuable that type of assemblage was for the purposes of collecting data, certainly, but beyond that, for the benefits and advantages of affording educators opportunities to participate in comprehensive, professional discussions in open, collaborative and non-judgmental settings.

**Summary**

In light of the perspectives gained from the kindergarten teachers, the researchers' own observations and the reviewed literature, deep considerations and judgments should be made by early elementary teachers and schools on best practices regarding how the use of music could enhance their students’ engagement and learning. Policymakers in districts and schools should focus more attention on professional development opportunities that focus on the incorporation of music in the early learning classroom to enhance students' engagement and learning. Additionally, more research should be conducted on the incorporation of music in classrooms to enhance student engagement and learning.

A final recommendation for improved practice has more to do with the process than the product of this research. I think it is very safe to say that the use of focus group methodology in this research design opened the collective minds of the researcher and the participating members of his teaching staff to the myriad of advantages of sitting in a room together discussing relevant and compelling topics of instruction and education. The focus group was an open, easy, engaging, free-flowing exercise in a non-threatening forum. The professional interaction and fluid exchange of ideas demonstrated the absolute worthiness of this type of collective discussion and conversation for the potential amelioration of many aspects of a professional learning community.

**Personal Thoughts and Reflections**
This research has consumed several years of my professional and personal life. I trust and hope that its findings are relevant and valuable to my teachers, my school, my school district and to all who are interested in the growth and development of young children and early learners. I know that I have learned a great deal from this work.

At this writing I have worked in kindergartens for over 25 years. Over that span of time, I have recognized and realized that music, for many reasons, is an important component of early learning. Throughout this inquiry and its parallel discovery I have become more convinced than ever that music is an enormously powerful instructional tool and classroom resource for the education and enhanced learning of young children. This conclusion appears to be valid for a number of reasons; two of the most predominant being increased student learning - particularly in the areas of fact memorization and rote learning - and increased student engagement.

I have been dismayed by what I have interpreted as a gradual decline in the use of music in kindergartens and in other early learning settings. I have theorized that younger kindergarten teachers have not had the basis for understanding the potentials of music as a facilitator of foundational instruction and key contributor to classroom setting and mood, environment, ambience and culture. I believe that many young early educators maintain a self-perception that they lack the skills to bring music into their classroom for the purposes of enhancing learning and student engagement. This is regrettable because modern technology allows for a number of distinct possibilities to easily and seamlessly bring music into the classroom and the learning process. The explosion of online resources, their widespread availability and use and the online tools which are now in the hands teachers make the introduction of music and musical elements as simple as pressing a button or clicking a mouse.
I am very grateful to work with such a solid dedicated staff of experienced, professional kindergarten teachers. That was evident through every aspect of this research work. Their willingness, ability and the data contributions themselves within our focus group were both impressive and valuable. I was fortunate in that all areas of the triangulation of data included my staff.

The genesis of this work stemmed from my longtime experiences as a kindergarten teacher. Music was an integral part of my teaching practice. Although not a trained or very talented musician, I am able to pound out a few tunes on both the piano and the guitar. My proclivities and talents in those regards enabled me to access these internal capabilities to positively affect the learning outcomes and classroom experiences of my students.

Upon a good deal of reflection, I learned something very important throughout this lengthy and deliberative process; that early childhood teachers, and, for that matter, all teachers are motivated by and compelled by different and divergent gifts, talents and proclivities. I learned or, more accurately, I have come to understand, that my world is far from universal. Music worked for me because I love it and I am fairly competent with it. It occupies a significant portion of my work and personal life.

But Art works in the same manner for other teachers. Science works for others. Mathematics and Engineering concepts work for still others. In short, a mammoth part of the art of teaching is a recognition and activation of the specific and unique strengths, drivers, tastes and compulsions of individual teachers. A reflective practitioner understands that leveraging and strengthening the human connections made accessible because of these personal traits, characteristics, and qualities will increase student engagement and, in my opinion, improve student learning.
Finally, virtually unstated but clearly apparent through all of the statements, responses and observations within this research is the pure and simple entertainment value of music and the interrelationships between music, entertainment and teaching. It is difficult to differentiate between the mental states of being entertained by a stimulus or activity and being engaged in it. The two seem to be closely intertwined. It has been said that a great teacher must, in many identifiable ways, be a talented entertainer. Music entertains.

It is my fervent hope that the results, conclusions and takeaways of this study help to convince young educators that music can be an effective means for enhancing the learning of their students and transforming their classroom into a fun and enjoyable venue; thereby creating and assuring a strong positive impact on their students’ engagement in their own learning.
References


http://hdl.handle.net/2047/d20004886


University of Virginia, Charlottesville, VA. (ERIC Document Reproduction Service No. ED 383 002).


http://scholarship.claremont.edu/cgu_etd/73


Appendix A

Focus Group Interview Questions - Kindergarten Teachers

- There is common sentiment among educators that, for very young students, music can be a powerful tool in the learning process. Do you agree or disagree? Why?
- Conversely, there is widespread opinion among early educators that, within the traditional school delivery of services, music is best left to the trained music educator. Do you agree or disagree? Why?
- Describe the best lesson in which you used music as a catalyst to learning. Describe the worst. What would you identify as impacts on student learning and engagement in those lessons?
- Student engagement is critical to the learning process and to the true understanding of content which all educators strive to effect. Within your experience have you noticed that the use of music in a kindergarten lesson affects student engagement? How?
- How can you tell when a student is engaged?
- Does the insertion of music in the kindergarten classroom impact the socio-emotional state of students? If so, how?
- What properties of music would you describe as being advantageous to learning and engagement?
Appendix B

Interview Questions - Kindergarten Students

- Do you like having music in school?
- What do you like about having music in school?
- What do you do when you hear music?
- How do you think you learn things when you sing about them?
- How do you learn the words to new songs?
- Have you ever thought about a song when music wasn't playing?
Appendix C
Researcher Observational Protocol

**Pre-lesson Discussion:** A summary of the pre-observation discussion.

<table>
<thead>
<tr>
<th>Teacher and Musical Element</th>
<th>Music</th>
<th>Observations</th>
<th>Inferences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Post-lesson Discussion:** A summary of the pre-observation discussion.