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**Making Music in Early Childhood Classrooms:  
Design and Implementation of an Individualized  
Teacher Development Program**

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**Making Music in Early Childhood Classrooms:  
Design and Implementation of an Individualized  
Teacher Development Program**

**by**

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## **Dedication**

To Ellen, Gene, and all of my little friends. The first made me believe I could do anything, the second showed me how to do it, and the last have kept me going.

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**Making Music in Early Childhood Classrooms:  
Design and Implementation of an Individualized  
Teacher Development Program**

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The University of Texas at Austin, 2017

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At present there are no nationally agreed-upon training requirements for early childhood teachers who work in preschools and day care centers. Credentialing requirements vary widely from state to state, among institutions, and among school classifications, and required credentials range from a Master's degree for some to the completion of a single orientation, course, or Child Development Associate (CDA) certificate for others (Cryer, Clifford, & National Center for Early Development & Learning, 2003). Additionally, typical Early Childhood Education degrees or certifications offer little or no music training, even though many graduates of these programs will eventually be responsible for teaching music as part of their professional responsibilities. A 2006 national survey regarding music in accredited early childhood centers revealed that 79% of classroom teachers were responsible for leading music in their classrooms (Nardo, Custodero, Persellin, & Fox, 2006).

Non-musician teachers who engage in music-making with children require not only musical skills, but also the ability to structure and lead music experiences successfully. Previous studies suggest that a combination of hands-on practice, observation, and the development of self-efficacy are fundamental aspects of competence in any domain (Hodges & Coppola, 2015; Shea, Wright, Wulf, & Whitacre, 2000; Wulf & Lewthwaite, 2009). This combination of factors has yet to be explored with early childhood teachers and music; it is unclear whether workshops, training, or observations result in the development of teacher ability, or whether other personal characteristics play a larger role.

This paper describes a semester long in-service early childhood teacher development program in music, including the program's development and implementation and the experiences of the early childhood teachers who participated. The program included individualized goal setting, peer-learning opportunities, self-assessment, and in-class mentorship while teaching music to young children. Qualitative and quantitative data from participant questionnaires, observations, video recordings, and personal interviews provide a picture of the teachers' learning, their music-making with children, their experiences in the program, and their plans for continuing to develop the musical environment of their classrooms. Reflections include recommendations for future in-service teacher development programs in early childhood music.

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## **Chapter One: Introduction**

Perhaps you are lucky enough to remember what it was like to be very young. Or perhaps, like me, you have spent much of your adult professional life surrounded by very young children. Even if you do not fit into one of the above categories, you certainly have observed children in the world.

Through our connections with the children in our lives, or our own memories of childhood, we feel that we understand children, what they need, and who they are, for the most part, that is. But how do we really know? How can we expect to compare our adult abilities, emotions, and perceptions to those of young children who have fundamentally different sets of experiences than we do, and who are at far different stages of their physical, cognitive, social, and emotion development than we are? These concerns are increasingly pertinent to early childhood teachers and caregivers, given that most American children spend time with these adults in some sort of organized, outside-of-the-home child care, well before they are enrolled in kindergarten (Barnett & Nores, 2012; National Center for Education Statistics, 2015).

The experiences that millions of American children have in child care may directly affect their later school and life experiences, and more directly, affect the quality of their lives during their hours, days, and years in care. Comprehensive measures of child care quality have shown that the majority of child care environments in the United States are of low to medium quality (National Center for Education Statistics, 2013). Many teachers and caregivers have little training and few resources to provide quality preschool environments and experiences for their students.

In most child care environments, the role of the teacher is to provide opportunities for social and pre-academic learning. Additionally, their work extends to providing creative arts experiences that include music. However, the majority of early childhood teachers and caregivers are responsible for providing creative and stimulating music experiences for children with little to no training or support (Nardo et al., 2006).

This dissertation presents an intensive in-service early childhood teacher development program in music that was conducted in the fall of 2016, referred to throughout this document as the *Musical Lives Program*. In the present study, early childhood caregivers with a variety of experiences and goals participated in comprehensive music training for an entire semester, with attention paid to both individual and group progress. I developed research questions, the answers to which provide guidelines and practical applications for professionals who are interested in developing similar programs. The research questions may also stimulate questions for future research in other educational contexts. Specific research questions were as follows:

- What is the overall effect of a music-focused residency on the music environments of participating day care centers?
- What music skills do teachers master easily?
- What is the timeline for skill acquisition, and what differences, if any, can be observed in learning for those who were more or less successful than others?
- What are the characteristics (e.g., years of experience, confidence, music background) of teachers who are successful and those who are less successful, and can these characteristics be used to identify candidates for in-service music training?

- What specific music activities do teachers prefer and find the easiest to implement in their classrooms?
- Following the program, how do teachers envision using music in their future classrooms?

This document contains a comprehensive literature review of early childhood education in the United States, early childhood music and the musical development of young children, and systems of teacher development. The program development chapter provides a description of the participants, settings, programmatic elements and implementation of the *Musical Lives Program*, and data collection procedures. The teacher experiences chapter addresses the research questions and other relevant findings. Lastly, discussion and reflections enlighten how this study may inform future early childhood music in-service training programs.

#### **LIST OF TERMS USED THROUGHOUT THIS PAPER**

- Early Childhood (EC). The period of time in a child's life from birth to age five, or until Kindergarten entry.
- Non-Center-Based Care. Care provided by a parent, a relative, or a non-relative in a home setting (Barnett & Nores, 2012). Types of non-center-based care can include:
  - Parental Care
  - Relative Care
  - Individually paid caregivers (e.g., nannies, au pairs, babysitters)
- Center-based Early Childhood Education Program. Early Childhood Education (ECE) service provided in a single location: ECE centers can operate as private

entities, or be administered as part of a larger institution or organization (e.g., community organization, non-profit, publicly funded program, for profit business. (Datta et al., 2013). Types of center-based care can include:

- Day Care/Day Nursery. Regulated non-family or non-relative group care administrated outside of the children's personal home and led by paid workers; the primary function is to provide safe care, and not necessarily an academic program (Cahan, 1989).
- Preschool/Nursery School. Regulated non-family or relative care administrated outside of the child's personal home and led by paid teachers and/or workers; the primary function is academic. These programs do not receive Head Start or public education funds, but may be funded by either tuition revenue or child care subsidies (Barnett & Nores, 2012; Cahan, 1989).
- Head Start (HS). Regulated non-family or relative care administered outside of the child's personal home, funded in part by the U.S. Federal Government and restricted primarily to children who live below the Federal Poverty Threshold (FPT); academics are a focus as well as health, nutrition, and family development. Head Start programs typically include children aged 4, or those who are in the year prior to kindergarten (Barnett & Nores, 2012; Office of Head Start, 2014).
- Early Head Start (EHS). Head Start programming for younger children, typically aged 3 and younger. EHS can also provide care to infants, toddlers, and/or to pregnant mothers (Office of Head Start, 2014).
- PreK. Pre Kindergarten year of instruction for children typically aged 4; in public settings, PreK can be free-of-charge, but may restrict enrollment to certain income

- levels or student demographics. Availability, setting, funding, and curricula vary from state to state or locality to locality, in a manner similar to public schools. Academics are the primary focus. PreK can alternately be referred to as Targeted PreK, in order to distinguish it from Universal PreK (Barnett, 2010; Witte & Trowbridge, 2004).
- Universal PreK (UPK). Pre Kindergarten year of instruction for children typically aged 4 that is free of charge and open to all children regardless of family income. UPK availability, setting, funding, and curriculum vary from state to state or locality to locality, as do public schools. Academics are the primary focus (Barnett & Nores, 2012).
  - School-sponsored center. Center that is administrated and funded through a local public school district. School-sponsored centers could be both UPK programs or Head Start centers (Datta et al., 2013).
  - Federal Poverty Threshold (FPT). Standardized national formula that determines the minimum annual income that is an absolute measure of poverty, one that is consistent across state and locality regardless of local cost of living or other external economic factors. The U.S. Census Bureau calculates federal poverty thresholds and current thresholds are available through several online government sources. The FPT varies based on household size and the number of minor children living in the home. The data for poverty, low-income, and deep poverty in this document are taken from the most recent calculations released by the U.S. Census (U.S. Census Bureau, 2017).

- Poverty, FPT. In 2016, the FPT was \$16,543 for a single parent with one child, and \$24,424 for a two-parent household with two children. In 2015, 4.2 million children (21.4%) under the age of five were living in poverty (U.S. Census Bureau, 2015).
- Low-income, or Poor. Under 200% of the FPT. In 2016: \$33,086 for a single parent with one child, or \$48,848 for a two-parent household with two children. The terms low-income and poor are used in the poverty literature interchangeably. In 2015, 8.78 million children (44.5%) under the age of five were low-income (U.S. Census Bureau, 2015).
- Deep Poverty. Under 50% of the FPT. In 2016: \$8,271.50 for a single parent with one child, or \$12,212 for a two-parent household with two children. In 2015, 2.06 million children (10.4%) under the age of five were living in deep poverty (U.S. Census Bureau, 2015).

## Chapter Two: Review of Literature

### INTRODUCTION

An infant's music education begins with the first lullaby he hears. He learns to recognize the sounds that are native and common in his home and immediate surroundings, and he can show personal musical preferences in the first months of life. The familiar sounds, inflections, and phrase structures that children hear often become their preferred music over time. As the child's ability to sing develops, he continues to refine skills and preferences. And, just as a child's early exposure to books and spoken language prepare him for more successful reading experiences in school, early music exposure and experiences making music can prepare the young child for successful music learning in school (de l'Etoile, 2006; Gerry, Unrau, & Trainor, 2012; Ilari & Sundara, 2009; Masataka, 2006; Mehr, Song, & Spelke, 2016; Soley & Hannon, 2010).

Reading is considered a critically important subject for study, and reading curricula are included in all grades, beginning with reading readiness and pre-literacy curricula in PreK. Music, however, does not share this universal recognition, although there is a growing body of literature that explores the numerous benefits of music experiences in the lives of young children (Barrett, 2006, 2011; Bolduc, 2008; Cirelli, Einarson, & Trainor, 2014a; Corbeil, Trehub, & Peretz, 2015; Gerry et al., 2012; Siu & Cheung, 2015). American children who attend public or private school generally begin their formal education at age five, the typical age of kindergarten entry; however, recent educational policy discussions on the federal and state levels have focused on the importance of early childhood education for all, potentially leading to a system of Universal PreK, or an additional public school grade. Publicly funded prekindergarten is

already available in many states and is expanding; it is unclear what this possible expansion may come to mean for the field of music education and for music educators.

In this review, as a way to understand more deeply the issues involved in expanding school music education and teacher preparation to include preschool, I have examined the historical developments of early childhood education and early childhood music education; early childhood music within a variety of preschool settings, both institutional and non-institutional; musical development in early childhood; early childhood music teacher training systems in the United States; and issues surrounding the teaching of music to adult beginners.

## **EARLY CHILDHOOD EDUCATION IN THE UNITED STATES**

Young children are cared for and educated in a wide variety of settings. Cultural beliefs and traditions, economics, educational movements, and research into human development have all shaped the diverse early childhood educational systems in the United States. In the following section, I discuss the history of early childhood education in the United States, today's options for early childhood care, and factors contributing to overall program experience, including the pursuit of school readiness, program effectiveness, and quality.

### **History**

Organized early childhood education in the United States has historically been separated into two types of institutions that serve different purposes: those that provide child care to the poor, and those that provide education to the wealthy. I am not choosing to use the terms "poor" or "wealthy" in this document out of an intention to be overly

casual about socio-economic differences. Rather, these terms are often used interchangeably with “low income” and “affluent” within the poverty literature.

It is important to consider the role of family economics when discussing the history of child care. Rarely have low-income families been considered together with affluent families in public debates about the importance of child care; specifically, debates regarding programs for low-income children have historically been separated from more general discussions about child care programs that serve all children regardless of family income. The history of child care in America has been well documented by both Cahan and Cohen, whose works I reference throughout this section, supported by work that has been conducted by other historical researchers and government agencies (Cahan, 1989; Cohen, 1996).

The notable pro-child care movements since the early 1800s sprang out of debates that focus on differing ideologies, where child care outside of the home is viewed as either a necessary byproduct of, or even a cure for, poverty, or as a form of advancement and enrichment for children (Cahan, 1989; Cohen, 1996; Howes & Droege, 1994). Cahan, within her historical review of child care in Europe and the United States, stated that child care has historically been “stigmatized by the stamp of poverty” (Cahan, 1989, p. 7).

Organized child care in the United States has changed over time in response to changing cultural attitudes about the role of the mother. In some eras, child care was viewed positively and seen as contributing to the gainful employment of parents, and in others it was viewed negatively and seen as promoting the degradation of the family, effectively separating young children from the nurture of home. The first day nurseries

for very young children, the precursors of today's day care centers, appeared in the United States in the early nineteenth century, in northeastern cities such as New York, Philadelphia, and Boston (Cohen, 1996). Other researchers have dated the opening of the first American day nursery as 1854 in New York (Rothman, 1973, p. 13). This difference of opinion may be due to differing definitions as to what constituted a day nursery at the time; group child care centers were operating but were not always regulated by the state.

Modeled on institutions that had existed in Europe for some time, the first American day nurseries developed out of the idea that poor families were not capable of morally educating and caring for their children, rendering children's welfare and upbringing a public issue. At the time, philanthropic individuals, institutions, settlement houses, or community service organizations typically operated day nurseries. Generally, these nurseries were formed and administered by upper- or middle-class citizens. Some required a fee to attend, and others were tuition-free (Cahan, 1989; Cohen, 1996; Rothman, 1973).

Throughout the 1820s and 1830s, day nurseries were considered a necessary support system to the economy. By enrolling their children in day nurseries, mothers were able to seek gainful employment; the prevailing attitude at the time was that work was the primary method through which to correct poverty. During this same era, nursery schools were also increasingly available for wealthy parents in New York, Cincinnati, Detroit, Hartford, and in the environs of Boston who wished to begin their child's education early. There were considerably fewer nursery schools than there were day nurseries during this time—the general cultural feeling being that if a family could afford

it, then the most desirable and beneficial place for a young child was to be at home with his mother (Cahan, 1989).

Day nurseries grew considerably in popularity in the latter part of the nineteenth century; there were only three documented day nurseries in the United States in 1878, 250 by 1902, and nearly 700 by 1916 (Cahan, 1989; Durst, 2005; Howes & Droege, 1994). The formalization and expansion of the day nursery movement coincided with a growing national interest in child development and welfare as a charitable enterprise. In 1898, the National Federation of Day Nurseries was founded by Josephine Jewell Dodge, a New York philanthropist (Michel, 2011). Around this same time, there was a sharp increase in other social services for children, which included religious education classes, the founding of missions, orphanages, and kindergartens, child labor reform, tenement reform, health care campaigns, the closing of almshouses where poor children had previously been institutionalized, juvenile justice reform, and cash support for single mothers.

Day nurseries provided the most basic care. Their primary function was to house the children during the day, to feed, and in some cases, bathe and clothe the children in order to maintain a general state of cleanliness. Due to inconsistent oversight at the time, nurseries could be very overcrowded, and, in some cases, one child care worker could be cooking, cleaning, and caring for between 30 and 50 children at a time, with some children being as young as 10 days old (Cahan, 1989; Durst, 2005).

Some of the day nurseries in the early 1900s began to emulate the few existing nursery schools of the time and attempted to create a more enriching environment beyond basic child safety and cleanliness (Cahan, 1989; Cohen, 1996; Howes & Droege, 1994).

Some nursery schools in urban areas were formed within settlement houses that added education for adults, a focus on assisting immigrants as they assimilated into American life, and child health care. In the 1920s and 1930s, educational progressivism, the Montessori method, and the emerging field of Early Childhood Education began to influence school content. An increase in the number of child psychologists, trained teachers, and social workers reflected the public idea that young children were worthy of study, and that perhaps there was indeed a social and economic purpose for them to be not just cared for, but educated (Cahan, 1989; Durst, 2005).

A small number of nursery schools with trained teachers for affluent families emerged after World War I, with a focus on social, emotional, motor, sensory, and physical growth, as well as overall health. Some schools employed or consulted with dietitians, pediatricians, nurses, or child psychologists. Many were housed in colleges and universities, allowing research to take place alongside the professional training of teachers. The postwar, somewhat ambitious, early childhood education movement never totally caught on with the wider public, and as a result served only a very small, wealthy population of families. Although many day nurseries wished to emulate this model, economics and resources proved too much of an obstacle to their development (Cahan, 1989).

During the Great Depression (1929-1939), approximately 200 day nurseries and nursery schools were forced to close due to lack of charitable donations and a decrease in the demand for child care. With more parents out of work and staying home, the desire and the need for child care sharply dropped (Michel, 2011). In response, and to encourage parents to be available for potential work opportunities, the United States

Congress appropriated \$6 million for temporary emergency preschools, or Emergency Nursery Schools (ENS) in conjunction with the efforts of the Works Progress Administration and the Federal Emergency Relief Administration. Nearly 3,000 ENSs opened between 1933 and 1934 in 43 states, and this marked the first time that the federal government of the United States made a financial contribution to public child care (Cohen, 1996; Michel, 2011). A small number of families who were on federal relief received child care so that they could pursue work, and as in previous eras, the ENSs were seen as a necessary economic support so that mothers could be free to provide for their families. In better times, outside-of-the-home child care would not be needed nor would it be desirable (Cahan, 1989).

During World War II, a similar effort to provide federally subsidized child care for women who were called to work began under the Lanham Act. Lanham Act day care centers were open to all families regardless of income, but as before, these actions were viewed as a necessity only in wartime, and as a result lasted only for the duration of the war (Cohen, 1996; Michel, 2011). After the end of the second World War, group child care became largely unpopular once again, and the vast majority of American children in the following decade with working mothers were cared for by a relative, friend, or even a neighbor (Cahan, 1989).

By the 1960s, public opinion about child care for children under the age of five began to change once again, the thinking being that young children could be set on the right path if they were educated beginning from a young age, and that underprivileged children should have equitable opportunities to benefit from an early education. President Kennedy attempted to form a universal federal child care policy in the early 1960s;

however, he was not successful in passing such policy during his presidency (Howes & Droege, 1994). President Johnson was successful in the creation of Project Head Start just a few years later.

Head Start began as a part Johnson's War on Poverty through the Economic Opportunity Act in the mid-1960s (Economic Opportunity Act, 1964). Originally envisioned as a six-week program in the summer of 1965, the purpose of Project Head Start was to give disadvantaged rising kindergarteners a needed boost before entering school in the fall. The program quickly evolved into a year-round program by 1966. Since its inception, over 32 million children have participated in Head Start (Office of Head Start, 2017). In 1970, Edward Ziegler, who managed Head Start as the first Director of the Office of Child Development and Chief of the U.S. Children's Bureau, argued that Head Start should be opened up to all children, regardless of family income; however, this change did not occur, and Head Start continues today to serve primarily children who live below the Federal Poverty Threshold (Rose, 2010).

At the same time Head Start was being developed by the Federal government, state-funded PreK programs were beginning to develop as well. Some states, including California, began funding public PreK in the 1960s; however, PreK did not seriously expand until as late as the 1990s. In some states these programs were designed to serve low-income 4-year-olds, while in others the programs were open to all children regardless of family income. Programs that are open to children regardless of family income are referred to as Universal PreK or UPK. Although open to all children regardless of family income, UPK is not consistent in quality, availability, or content across the country, nor has it expanded at the same rate in each state. For instance,

public-school-based Universal PreK is more prevalent in the Southeast than in other areas of the country, and some states do not have it at all (Witte & Trowbridge, 2004).

Also during the 1960s, the first of two large early childhood educational experiments were launched, known as the High Scope Perry Preschool Project (Schweinhart, 2005; Witte & Trowbridge, 2004). Housed in Michigan, the Perry Preschool project paired home visits with intensive, high quality preschool for one to two years. The children who participated were all 3- and 4-year-old children who were identified as at-risk; they were from low-income families, and the average group IQ was 80. The participants were tracked over time and compared to a same-age control group who did not participate in the program. Reports of the group's progress have been issued every few years with the most recent being published in 2005 (Schweinhart, 2005; Schweinhart et al., 2005).

The longitudinal effects and subsequent cost-benefit analyses of the High Scope Perry Preschool study are often cited in debates about the effectiveness of preschool (Belfield, Nores, Barnett, & Schweinhart, 2006; Nores, Barnett, Schweinhart, & Belfield, n.d.; Schweinhart LJ, 2014). As of the 2005 report, the Perry Preschool students had significantly outperformed the control group in the highest level of education achieved, and had performed significantly better on several intellectual, language, school achievement, and literacy tests over time (Schweinhart et al., 2005). The most recent report (up to age 40 for the participants) also found that the participants were employed at a significantly higher rate than were non-participants and had significantly higher earnings; more of them owned their own homes, owned a car, or had acquired or maintained other signs of economic stability by age 40. Other observed program benefits

included significantly fewer arrests, stable family relationships, and a significant public economic benefit. The report stated that there was a \$12.90 return for every dollar spent on the program (Schweinhart et al., 2005).

The second such large-scale preschool program, the Carolina Abecedarian Program, ran in Chapel Hill, North Carolina from 1972 to 1985. The program offered full-day year-round care to low-income children from birth to age five. Participants (112 individuals) were evaluated through age 21; in comparison with a control group they showed higher IQs, significant increases in reading and math ability, a decreased likelihood to have been placed in special education or to have been held back in school, and a higher occurrence of college attendance (Witte & Trowbridge, 2004). Both the Perry study and the Abecedarian study received criticism, since their programs have not proved replicable on a wide scale, and, however effective, cannot be implemented in all settings (Schweinhart et al., 2005).

During the 1970s, along with a rising female labor force, many nations began to take a larger role in the public education and care of young children, while debates about the role of government in the rearing of children continued. A plan to federally fund universal child care, the Comprehensive Child Development Act of 1971, passed in Congress, but was vetoed by then President Richard Nixon who, as cited by Cohen (1996), reasoned that “for the Federal Government to plunge headlong financially into supporting child development would commit vast moral authority of the National Government to the side of communal approaches to child rearing over against [sic] the family-centered approach” (Nixon, 1971). Nixon’s sentiments at the time echoed those of

the day nursery movement and those of the Great Depression and World Wars. Group child care was and still is perceived by some to interfere with the role of the family.

Also during the 1970s, many European countries were beginning or expanding formalized parental leave policies, tax policies, and increased public expenditures for early childhood care and education (Witte & Trowbridge, 2004). The United States did not pass a national family leave policy that protects a parent's ability to take leave from their job in order to care for a child or family member until 1993 (Family and Medical Leave Act, 1993). Exceptions remain as to who is eligible to take protected leave; it was estimated in 2004 that fewer than half of American workers were eligible to benefit from the Family and Medical Leave Act (Witte & Trowbridge, 2004).

The Family Support Act (FSA) was passed in 1988, requiring that welfare recipients who are enrolled in the federal Aid to Families with Dependent Children (AFDC) program pursue education or work in order to receive their welfare payments (Cohen, 1996; Howes & Droege, 1994). This change in welfare policy made it impossible for many poor parents, including a large number of single mothers, to stay at home and care for their children; therefore, the FSA guaranteed child care as well (Cohen, 1996). This was the first time that child care policy ensured that eligible needy families were guaranteed child care subsidies from federal and state governments; however, only those families who were enrolled in the AFDC were eligible, leaving out large groups of low-income families who were not enrolled. On the heels of the FSA, the Child Care and Development Block Grant (CCDBG) and the Title IV-A At-Risk Child Care legislation provided additional federal child care subsidies for needy families; child care options increased as more providers began to accept the CCDBG subsidies (Cohen, 1996). There

are other tax credits for families with dependent children, including the U.S. Child Tax Credit, and the U.S. Dependent Care Tax Credit; however, it is doubtful that these credits adequately offset the full expense of child care.

Today, organized, enriching, outside-of-the-home preschool education or organized group child care is not the norm for all American children. And not all early childhood centers are the same, nor are they the ideal environment for all children. For children who do attend center-based care, those from affluent backgrounds may have a vastly different set of experiences than their less affluent peers. Generally speaking, early childhood schools that charge higher tuition and fees offer programs of higher quality (Kisker, Hofferth, Phillips, & Farquhar, 1991), and young children's development has been shown to correlate to the quality of their care (Howes & Droege, 1994). In the absence of a standardized or equitably available preschool system, American children start kindergarten with different experiences, knowledge, abilities, and aptitudes for learning. As a result, there has been and continues to be a growing difference between how the wealthy and the poor are able to educate their children.

### **Today's Early Childhood Education and Care Options**

Family, environment, genetics, culture, nutrition, and health all contribute to the person that a child will become by age five, and American children have vastly different experiences before they enter kindergarten. In addition to biological and environmental differences, children have different child care experiences in the United States in their first years. For many families, non-parental child care is a necessity, and they make decisions regarding this care based on child characteristics, quality, geography,

availability, race, ethnicity, cultural norms, socioeconomics, and educational philosophy (Howes & Droege, 1994; Kreader, Ferguson, & Lawrence, 2005).

American families largely choose between three main categories of child care. Those who financially qualify can pursue subsidized care, such as Head Start, whereas those who have more financial resources may choose a private preschool. Others pursue home child care options, whether it is with a parent or family caregiver or a home-based day care arrangement. In 2016, it was estimated that 59% of children under the age of five who are not yet enrolled in kindergarten were enrolled in some type of regular center-based care (National Center for Education Statistics, 2017).

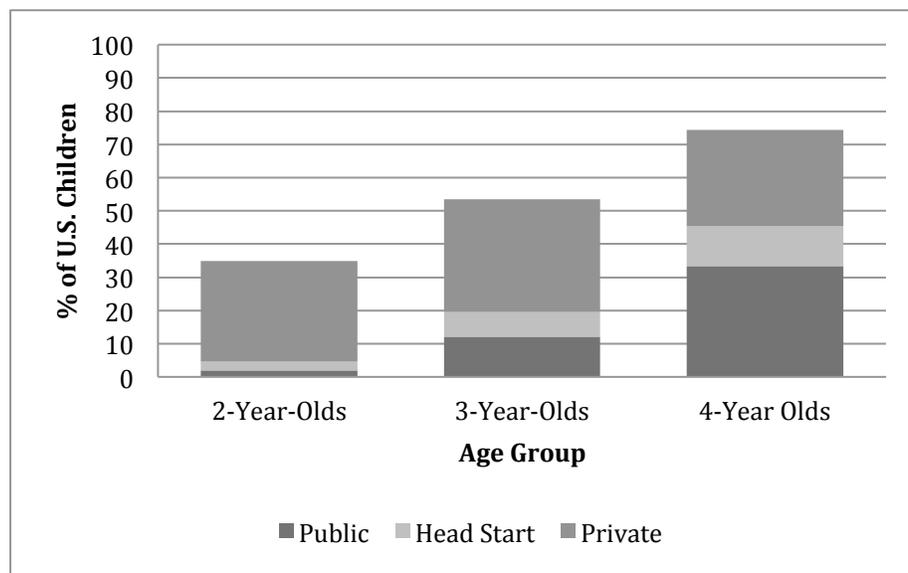


Figure 1: Estimated Percentage of Early-Childhood-Aged Children in Non-Parental Early Childhood Center-Based Care in Each Type of Care Setting in the United States, 2010.

Figure 1 shows the percentages of 2-, 3-, and 4-year-old children who were enrolled in child care in 2010 (based on Barnett, 2010; Barnett & Nores, 2012). In Figure 1, “private” includes day care centers (not funded by the state or the federal government),

preschools, and nursery schools. Head Start centers are federally funded, and may be otherwise additionally subsidized by state funds or tuition. “Public” programs included state-funded public school programs and Universal PreK.

In the following sections, I discuss various early childhood education and care options in detail, including Home or Family Care, Group Day Care, Head Start, Private Nursery or Preschool, and Universal PreK.

### **Home or Family Care**

Contemporary home care arrangements can look very different depending on multiple factors including income level, the age of the child, geographic location, race or ethnicity, or cultural beliefs. In 2016, the greatest percentage of American early-childhood-aged children who stayed at home with a parent were living below the Federal Poverty Threshold (FPT); were Asian, Pacific Islander, or Hispanic; were from a two-parent household where only one of the two parents or guardians spoke English; and lived in households where the highest education level of the parents or guardians was less than a high school education (National Center for Education Statistics, 2017). It may be difficult for those filling the role of primary caregiver to be active full-time members of the labor force (Kreader et al., 2005).

These demographics seem to suggest that people choose whether or not to enroll their children in day care or preschool as a result of socio-economic factors, but, this is not entirely the case. Many families choose to keep their children home until kindergarten, first grade, or beyond; some out of a desire to pursue “un-schooling” or home-schooling. It is not uncommon for families to believe that center-based care is not in the best interest of the young child.

Home care arrangements, though not subject to the same regulatory academic requirements as preschools and centers, are still active hubs of both formal and informal learning for young children. According to the National Household Education Surveys of 2016:

Approximately 81 percent of children ages three to five who were not yet in kindergarten had parents who read to them three or more times in the past week; 69 percent had parents who sang songs with them three or more times in the past week; 68 percent had parents who taught them letters, words, or numbers three or more times in the last week; 38 percent had parents who worked on arts and crafts with them three or more times in the past week; and 33 percent had parents who told them a story three or more times in the past week. (National Center for Education Statistics, 2017, p. 4)

These percentages are quite different than those reported in the last National Household Education Survey (2012). In the previous survey, it was found that:

Approximately 98 percent of children ages three to five who were not yet in kindergarten had parents who taught them letters, words, or numbers in the past week; 95 percent had parents who read to them; 94 percent had parents who sang songs with them; 86 percent had parents who worked on arts and crafts with them; and 83 percent had parents who told them a story. (National Center for Education Statistics, 2015, p. 14)

The majority of children who do not attend center-based care receive some degree of the typical preschool experiences in the home, although the degree to which these activities occur varies.

### **Tuition-Based Care: Group Day Care, Private Nursery School/Preschool**

Families who are financially able may choose to enroll their children in private nursery schools or group child care. Outside of the home child care centers (also known as day care) or nursery schools can be independently run as small businesses, or can be

administered as a part of a larger organization, such as a church or community organization. What distinguishes day care from preschools or nursery schools is that the primary function of day care is to provide a healthy and safe environment, whereas preschool is responsible for delivering curricula. That is not to say that day care centers do not include academic activities, and that preschools do not offer safe full-day child care, as both institutional categories include programs of all varieties.

Either may be partially funded by public sources, but the majority of day care centers are supported by tuition and fees paid by parents (National Survey of Early Care and Education Project Team, 2014). On average, the cost for attendance in private nursery school in the United States is over \$1900 per month. Despite a much higher cost of attendance, private preschools are not always of higher quality than Head Start or public preschool settings (Coley, Votruba-Drzal, Collins, & Cook, 2016). Overall quality and the types of experiences that tuition-based schools and centers can offer vary based on their revenue as well as their location.

### **Publicly Funded Early Childhood Education and Care Options**

In the following section, I discuss three main types of publicly funded ECC programs: Head Start, PreK, and Universal PreK (UPK). All three are focused on academic development prior to kindergarten entry, but there are primary differences between the three types of institutions in terms of financing and student enrollment. UPK is a separate movement from other state-funded PreK systems; some states offer PreK where enrollment is restricted in some way, such as being limited to certain student demographics or income levels (Witte & Trowbridge, 2004). Head Start's enrollment is determined by family income, state PreK enrollment is sometimes restricted by income,

and UPK's enrollment is available to families regardless of their income, hence the use of the term "universal." In all three types of publicly funded ECC programs enrollment may be restricted to a small number of available spots in a given state or locality.

### **Head Start**

For children whose families are considered poor or low-income according to the Federal Poverty Threshold, full- or part-time care in a federally funded Head Start center may be an option. Head Start, part of President Lyndon B. Johnson's Economic Opportunity Act of 1964 (Economic Opportunity Act, 1964), began as a summer program with a \$96 million budget and serving slightly more than five hundred thousand children (Haxton, n.d.). The most current reported budget is around \$9 billion and the number of children enrolled in Head Start or Early Head Start Programs in 2016 was almost 1 million (Office of Head Start, 2017). The original purpose of Head Start, to help put children on equal footing with their more affluent peers by the time they reach kindergarten, has been expanded in the current version of the law to "promote the school readiness of low-income children by enhancing their cognitive, social, and emotional development" (Improving Head Start for School Readiness Act, 2007).

Current Head Start programs exist in many different settings, provide care either full- or part-day, and operate either 9-months or 12-months a year. Eligible institutions include day care centers, non-profit and for profit schools, religious organizations, residentially based care, Mobile Head Start Programs, and programs serving migrant populations (Improving Head Start for School Readiness Act, 2007). They are administered by county, city, or township governments, independent school districts, institutions of higher education, federally recognized Native American tribal

governments, public housing authorities, as well as by non-profit, for-profit, and small businesses. Entities can operate outside of the local school systems and social service agencies, or can be stand-alone organizations. The majority of Head Start Preschools are center-based programs that meet five days a week for more than 6 hours a day (Office of Head Start, 2017).

The typical participating institution operates independently, and can follow any curriculum it chooses, as long as it adheres to the federal standards laid out in the Head Start Child Outcomes Framework (Improving Head Start for School Readiness Act, 2007). Programs offer a wide variety of both academic and non-academic experiences and are mandated to ultimately provide “comprehensive intervention to improve children’s readiness to enter school” (Office of Head Start, 2011, p. 5). Beyond academics, medical, dental, mental health, and nutrition services, Head Start also provides family support and referrals when necessary, recognizing that healthy family relationships are central to growth and development (U.S. Department of Health and Human Services, 2010). Head Start refers to their approach as “whole child” which includes comprehensive curriculums that address language and literacy, mathematics, science, social and emotional development, physical education, and the creative arts (Improving Head Start for School Readiness Act, 2007). The specifics of how schools determine and design their curricula are not explicitly laid out in the law, so program structures and offerings vary widely. What was once a heavy focus on the development of the “whole child” in the original Head Start policy formation has gradually moved toward a heavier focus on school readiness, even going so far as to include the words

“school readiness” in the title of the law (Improving Head Start for School Readiness Act, 2007).

Recall that Head Start grew from a small summer program into a widespread system of federally subsidized centers, with programs available in every state and territory in the nation (Office of Head Start, 2017). 65% of Head Start admissions per center are reserved for families who live under the Federal Poverty Threshold (FPT), which in 2016 was calculated as \$24,424 per year for a family of four (U.S. Census Bureau, 2017). The remaining 35% of Head Start enrollees must also fit into the lower end of the range that is designated as “low-income,” with family incomes that fall within 130% of the FPT, or \$31,751 per year for a family of four (Improving Head Start for School Readiness Act, 2007).

Individual child care institutions of any type (e.g., for-profit centers, non-profit centers, schools housed within religious organizations, programs within public schools, programs within social service organizations) whose students fall below the Head Start income restrictions may apply for Head Start grants from the federal government. The federal government distributes Head Start funds to each state according to that state’s population, income demographics, and in proportion to the previous levels of Head Start funds in that state (Office of Head Start, 2011). Grants are only made available in a given area if they have been released from another local organization, keeping funds in the area for which it was originally appropriated (Improving Head Start for School Readiness Act, 2007).

It is perhaps important to note that Head Start, especially in its original form, was not intended to be “school” in the traditional sense. Head Start was designed to be a

comprehensive preparation program for school, which included adequate nutrition, health care, family development, and also comprehensive child care. In 1979, President Carter recommended shifting control of Head Start to the Department of Education, but that recommendation was not passed by Congress (Haxton, n.d.). By not classifying Head Start, or early childhood education in general, as “school” under the control of the DOE, Head Starts are not eligible for protections offered to schools or other guarantees such as those for funding and availability for children.

Head Start saw steady growth as a far-reaching social service program during the 1960s, 1970s, and 1980s, resulting in the passage in 1981 of the Head Start Act—an article of the Omnibus Budget Reconciliation Act of 1981 (Text of H.R. 3982 (97th), 1981, p. 499–508). This Act intended to formalize what had become by that time a far-reaching social service program, increasing funding and government oversight. Throughout the 1970s and 1980s, the program enrolled nearly 400,000 students; throughout the 1990s, this number grew steadily, and in 2016, the program served 915,603 children (Office of Head Start, 2011, 2017).

The financial investment in the program has grown accordingly. In 1966, during its first year as a school-year program, Head Start received just under \$200 million in federal appropriations. This number has increased incrementally every year, passing a billion dollars in 1985, reaching over \$8.7 billion in 2016 (Office of Head Start, 2011, 2017). Even with a budget of over \$8 billion, Head Start only serves one fifth of the roughly 5 million preschool children who qualify for the program (Jiang, Ekono, & Skinner, 2015; Office of Head Start, 2017). Table 1 below includes a brief timeline of funding, enrollment, and pertinent events related to Head Start.

Table 1: Head Start: Notable Events

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1965	8 week summer program - \$96,400,000, enrollment 561,000
1966	9 month part-day program - \$198,900,000, enrollment 733,000
1972	Mandated that 10% of admission must be reserved for children with disabilities
1973	National Head Start Association established
1977	Bilingual and bicultural Migrant and seasonal programs began
1979	President Carter recommended moving Head Start to the U.S. Department of Education. This did not pass.
1981	Passage of the Head Start Act
1994	Reauthorization, adding services for birth to 3 years - \$3,325,728,000, enrollment 740,493
1998	Reauthorization, along with a shift to promote school readiness, literacy, competitive salaries - \$4,347,433,000, enrollment 822,316
2002	Federal mandated teacher training institutes instituted, to support the program's new literacy focus
2005	Government Accounting Office (GAO) puts out unflattering report. This ultimately leads to the Head Start Impact Study
2007	Reauthorization - \$6,888,571,000, enrollment 909,201
2012	Head Start Act expired, yet continues to be funded - \$7,968,544,000, enrollment 956,497
2016	Funding: \$8,727,199,290; Enrollment 915,603

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*Note.* Information from (Haxton, n.d.; Office of Head Start, 2011, 2017).

In 1994, a program designed for birth to age three, Early Head Start, was added to the existing program. Early Head Start programs serve not only infants and toddlers, but also pregnant women through education and healthcare. Since its inception, the Early Head Start program has grown in both funding and enrollment; in 2016, 25% of Head

Start centers were exclusively Early Head Starts, and 42% of all programs operated both Head Starts and Early Head Starts (Office of Head Start, 2017).

Even with the addition of programs for infants and toddlers and the growing number of families who qualify for Head Start programs, debate continues as to the success of the program; whether the Head Start program has indeed given poor children equal opportunity for success in school, or whether the \$8 billion a year has served as a band-aid, attempting to fix an inherent inequality, but only serving to deepen it (Office of Head Start, 2011; U.S. Department of Health and Human Services, 2010).

## **PreK**

In addition to federally funded Head Start programs, some states offer tuition free early childhood programs for at-risk or low-income children. In 2014, there were fifty-three such programs in forty states that offered state-funded early childhood center-based programs—twenty-nine of these programs had a maximum family income requirement for entry (Barnett, Carolan, Squires, Brown, & Horowitz, 2015). Those programs that have an income requirement or that restrict their enrollment to children who meet factors deemed at-risk, are separate from Universal PreK programs, which I discuss in a later section. Some of these targeted PreK programs also use the name Head Start, but are funded by their state or by the state and the federal government together.

## **UPK**

Universal PreK (UPK) is an additional, optional, early year of public school that exists to varying degrees and in a variety of forms throughout the United States. UPK classrooms can exist within existing Head Starts, nursery schools, and day care centers,

but also within public elementary schools. Until now, the funding for UPK has come primarily from each individual state and not from the federal government (Barnett et al., 2017; Witte & Trowbridge, 2004).

In 2014, there were state-funded early childhood programs with no income requirement for entry in twenty-three states: Alabama, Connecticut, Washington DC, Florida, Georgia, Iowa, Kansas, Louisiana, Maine, Minnesota, Mississippi, Missouri, Nevada, New Jersey, New Mexico, New York, Oklahoma, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia, and Wisconsin (Barnett et al., 2015).

The last few years have seen considerable expansion in the availability of state-funded early childhood programs across the country. In 2016, there were state-funded EC programs with no income requirement in 43 states and the District of Columbia: all of the above plus the addition of Alaska, Arizona, Arkansas, California, Colorado, Delaware, Hawaii, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Nebraska, North Carolina, Ohio, Oregon, South Carolina, Tennessee, Texas, and Washington State (Barnett et al., 2017).

That is not to say that all 4-year-olds in these states attend UPK. Actual enrollment in each state varies greatly due to the number of available spots, family interest, and geographical feasibility. States may not prioritize UPK if it has not been a recognized need for their citizens or if that state has limited funding for public schools. Washington, D.C. currently has the greatest saturation of Universal PreK programs, serves the highest percentage of its residents, and spends the most money per child doing so. In D.C., 81.2% of all 4-year-olds and 70% of all 3-year-olds attended UPK in 2015-

2016 (Barnett et al., 2017). Figure 2 displays the percentage of all 3- and 4-year-old children enrolled in the states where UPK is most available.

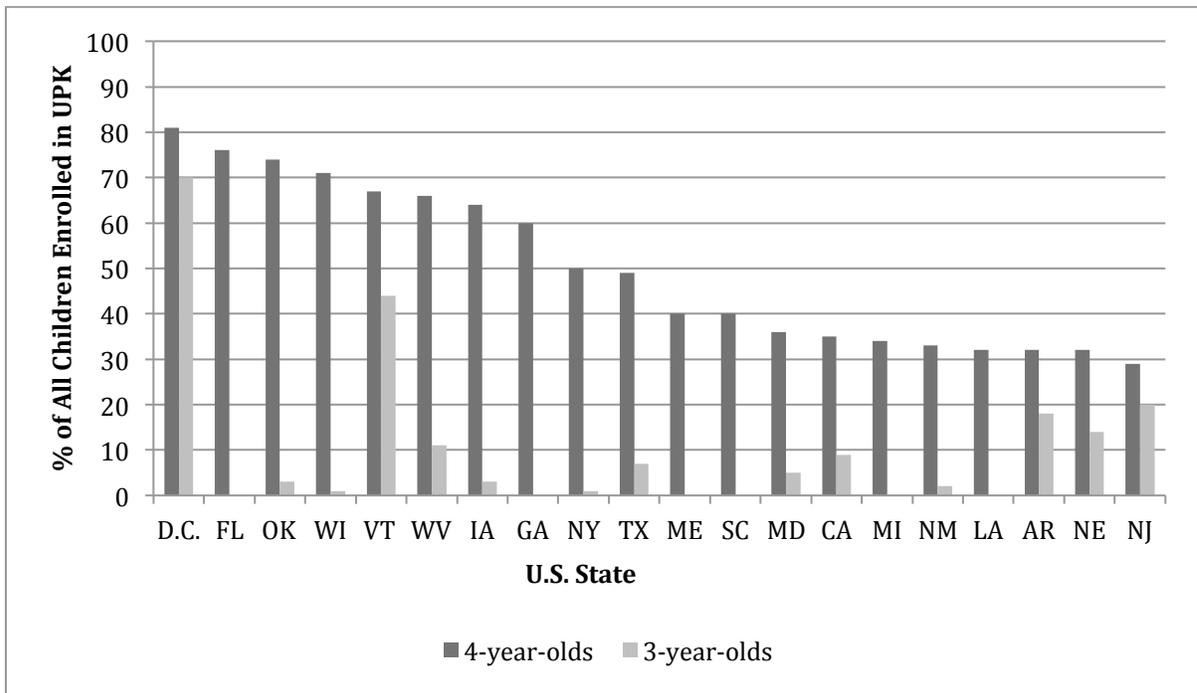


Figure 2: Percentage Enrolled in UPK Programs by State. Based on (Barnett et al., 2017).

### The Apparent Trend

Whereas it was once most common for young children to stay at home in the care of a parent, today there are a great many more working and single parents in the United States, thus creating an increased need for daily child care outside the home. By 2001, half of all American early-childhood-aged children were enrolled in some sort of non-parental care at least one day a week, a number that has continued to grow in recent years and also as children approach kindergarten entry (Barnett & Nores, 2012; Kreader et al., 2005). In 2016, approximately 7.5 million children under the age of five attended some

sort of center-based, outside-of-the-home, preschool or day care (National Center for Education Statistics, 2017).

Child care availability, demand, and desirability continue to vary across the country. As shown in Table 2, the numbers of child care facilities in most states have increased over the last twenty years, thereby providing easier access to child care options for many (U.S. Census Bureau, 2013). In 1987, the census identified 262,511 institutions providing care (e.g., privately owned and operated day care centers, preschools, nursery schools). By 2007, this number had risen to 766,401 (U.S. Census Bureau, 2013). According to U.S. Economic Census data, the increased availability of child care is a result of an increase in the number of mothers who work and a growing desire for preschool educational opportunities. The supply and demand are highest in the central northern United States, but child care appears to be less available in the southwestern and southeastern states (U.S. Census Bureau, 2013).

Table 2: Number of Child Care Facilities per 1,000 Children

U.S. Census Year	Child Care Facilities per 1,000 Children				
	States with < 20	States with 20-29	States with 30-39	States with 40-50	States with >50
1987	33	9	3	5	-
1992	10	16	7	5	12
1997	11	10	12	6	11
2002	5	13	9	9	14
2007	2	15	16	4	13

*Note.* Information from (U.S. Census Bureau, 2013).

Recent drafts of the rewritten Elementary and Secondary Education Act (ESEA), now known as the Every Student Succeeds Act (ESSA), have included proposals to include PreK—with particular reference to language and pre-literacy support and school readiness—in federal education policy (Every Student Succeeds Act, 2015). As the public and political interest in UPK has grown, policy makers in some individual states are pursuing additional funding for public PreK, obtaining federal grant money, establishing state early learning standards, and developing new early childhood teacher licensures (Barnett et al., 2015).

Some policy makers and analysts have framed the argument for public early childhood education as one of equality of expenditures and the potential to create positive economic outcomes. They argue that if the state spent the same amount of money on a child before he goes to kindergarten (by supporting child care and preschool) as they do when he is enrolled in public school, that the United States could potentially resolve issues of developmental inequality. Enrollment in early childhood education has been found to create positive long-term economic results for people over the course of their lives, which ultimately offsets and justifies the public expense of early childhood education (Aber, Morris, & Raver, 2012; Gormley, 2012; Odom, Pungello, & Gardner-Neblett, 2012).

### **School Readiness**

Questions remain as to what is truly effective and lasting in the education and care of young children. The predominant concern for many programs is how to prepare young children for kindergarten. “School readiness” is a term that is present in most all public policy discussions of early childhood education (Karch, 2013, p. 3; Kisker et al., 1991, p.

1). A combination of several contributing factors (e.g., environment, school, community, family) promotes a child's initial school readiness (Maxwell & Clifford, 2004; NAEYC, 1995; Rhode Island Kids Count, 2005). The School Readiness Indicators Initiative refers to this as "The Ready Child Equation" (Rhode Island Kids Count, 2005, p. 12). Each component of the equation is important: if a child has access to family, community, resources, and early intervention services, then that child is more likely to be ready for success in kindergarten and beyond.

There is no universally accepted definition of school readiness. Standards are broadly defined, and readiness assessments vary from school to school and state to state. A child's readiness for kindergarten can be measured by age-related developmental factors and individual differences, rather than by a set of skills to be mastered by the conclusion of preschool (Maxwell & Clifford, 2004). The National Association for the Education of Young Children (NAEYC) suggests that kindergartens where the expectations of children are "reasonable, appropriate, and supportive of individual differences" should take differences into account, and that comparing children against a standardized checklist of skills unfairly stigmatizes many children "for their lack of opportunity" (NAEYC, 1995, p. 1).

NAEYC makes several evidence-based recommendations for what a comprehensive pre-kindergarten educational program should include: that children should have opportunities to develop their language and cognitive growth, and that teaching should be developmentally, culturally, and linguistically appropriate, and provided by qualified teachers. Recommendations also address effective school leadership and ongoing formal and informal assessment (NAEYC, 2005).

NAEYC also states that effective early childhood curriculums stress the non-academic areas of a child's development: social, emotional, nutritional, and physical, and provide opportunities to develop relationships between children and adults and to build relationships with families and communities. These positive relationships encourage and support children throughout their future lives. These guidelines recognize the importance of developing the whole child, and that test scores alone do not define one's preparation for school and future success (NAEYC, 2005).

### **Program Effectiveness and Quality**

The early childhood education quality divide is never more apparent than when one looks at ECE institutions in urban areas where there is a large separation between rich and poor. For instance, in New York City some private preschool programs cost as much as \$28,000 a year per child (Brickchurchschool.org, 2016, October 29; Chelseadayschool.org, 2016, October 29), restricting admittance to affluent families or those who may be able to obtain financial aid. Only a few blocks away from these same schools are several Head Start Programs, serving communities where an entire family of four lives on less than \$28,000 a year; in 2013, 19.1% of families in that area of New York City were living in poverty (U.S. Census Bureau, n.d.). Expensive preschool educational opportunities are far beyond what a poor family, or even many middle-income families, can hope to provide their children. In the absence of a public system of early childhood education in the United States there continues to be segregation between rich and poor children.

There are also differences in program quality and outcomes; whether an institution is privately or publicly funded is not necessarily an indication of quality. A

study of 10 private (not Head Start or publicly funded) day care centers analyzed the types of daily activities that are typically included, with a particular focus on physical activity. The results show that the day care centers provided significantly fewer active play opportunities than are recommended for young children (Tandon, Saelens, & Christakis, 2015).

Public preschool offerings have been shown to employ more teachers with early childhood training and higher education degrees than do private programs. Public programs also have larger classrooms, higher teacher-to-student ratios, greater numbers of low-income students, and greater numbers of students for whom English is a second language. As a result, private preschools report higher degrees of school readiness and better academic outcomes for their students than do publicly funded offerings (Coley et al., 2016).

Studies of the longitudinal effects of PreK participation have obtained mixed results. Participation in the Abecedarian Project, the 1970s era high quality preschool program for at-risk children that I mentioned previously, resulted in significant long-term gains for participants into adulthood; participants, on average, obtained higher educational levels and more consistent employment. Additional positive gains included higher earned income, the attainment of more prestigious roles in the workforce, less use of public assistance, and a higher likelihood of being the head of a household; other long-term social factors, such as criminal activity, likelihood of marriage, substance abuse, and mental and physical health did not appear to have been affected by preschool participation (Campbell et al., 2012). Other studies show that positive academic gains from PreK can fade by third grade, although there is speculation that this fade may be due

to program ineffectiveness or to non-academic events that occur between PreK and third grade (Hill, Gormley, & Adelstein, 2015).

There is also evidence that emotional quality (e.g., positive teacher language, social-emotional support) and organization of programs can produce positive student outcomes, and that attending more than one year of high quality organized early childhood education can result in greater social skills and fewer behavior problems than just a single year of attendance (Broekhuizen, Mokrova, Burchinal, & Garrett-Peters, 2016). Classroom quality and organization can perhaps be attributed to individual classroom teachers, the techniques that they employ in running a classroom, and how they provide for the emotional needs of students.

## **Conclusion**

Currently, there is no federal system that offers free public care to all children in the United States. Of all early childhood education and care centers, 68% are at least partially if not totally supported by tuition and fees paid by their students' families (National Survey of Early Care and Education Project Team, 2014). As a result, not everyone has the option of an affordable or desirable preschool institution in their area, and the preschools, Head Starts, or day cares that do exist may differ drastically in terms of quality. There is a question of whether public preschool, or any organized environment with an academic goal, is the ideal environment for all children. But, in the absence of a standardized or equitably available preschool system, American children start kindergarten with potentially vastly different experiences, knowledge, abilities, and aptitudes for learning.

## **EARLY CHILDHOOD MUSIC AND MUSIC EDUCATION**

### **Research Findings Related to Musical Development, Birth to Age 5**

In this section, I discuss factors that contribute to a child's musical life and the development of musical skills, including natural development, school experiences, culture, and family. I explore young children's development of music and sound-making behaviors (e.g., singing, instrument playing) as well as the development of their responses to and understanding of music (e.g., perception, movement, listening, or music discussion). I also provide a historical background of early childhood music education and the emergence of early childhood music curricula.

The recent literature regarding young children's musical development includes both qualitative and quantitative research. The body of literature also includes frequently cited and pedagogically pertinent early classic studies and notable monographs, and more recent broad reviews of literature. Through this literature, we have learned a great deal about young children's development in both making and responding to music, including how young children express musical ideas and how they come to understand music.

### **Foundational Early Childhood Music Pedagogues, Early Classic Studies, and Notable Monographs**

Several often-cited studies and monographs, particularly the work of Moorhead and Pond, Zimmerman, and MacDonald, form the basis for current research and modern early childhood music pedagogy. These researcher-pedagogues conducted studies and compiled information from others to form pedagogical recommendations. In this section, I highlight some of the notable points of this foundational work.

***McDonald, Zimmerman, Moorhead and Pond***

The work of McDonald, Zimmerman, Moorhead, and Pond illustrates a timeline of a child's musical development. This development begins with the infant hearing sounds, which leads to imitating and producing sounds to communicate with caregivers. Singing to infants or having infants listen to music helps them to regulate their emotions and levels of stimulation; this is also true when music is accompanied by physical actions such as rocking. During infancy, children begin to explore sound and sound producing objects; they enjoy listening to and being moved rhythmically to music; they shake, tap, or drop objects in order to explore the resulting sounds, and they begin to explore the capabilities of their voices in single-syllable sound play, particularly when engaged in vocal imitative play with an adult. From a very early stage, children show attention to musical sounds and are able to differentiate music from non-musical sounds; eventually this leads to their being able to differentiate their own musical sounds from those of others (McDonald, 1979).

Toddlerhood (roughly beginning at 12 months of age) is a period of exploration, increasing independence, and individuality. Toddlers vocalize freely, either on their own, or as a type of vocal play with others. They participate in music-making in individualized ways—toddlers may reproduce learned songs in unique and inventive ways. Generally, toddlers have a brief attention span, and may show little interest in participating in group activities or group music-making. Toddlers and 2-year-olds enjoy singing and making sounds on instruments, and they begin to use sound producing objects with more control. Listening experiences with this age often lead to sound imitation, individualized dancing, and spontaneous movement (McDonald, 1979).

By age two, most children can produce a singing sound. These sounds can be spontaneous, or in response to their environment or an activity. Singing smaller intervals is easier to manage than is singing larger ones; children tend to compress intervals larger than a fifth or sixth at this age. A small vocal range tends to be most comfortable for 2-year-olds; McDonald and Zimmerman both recommend a vocal range for singing between D above middle C to the A directly above (McDonald, 1979, p. 13; Zimmerman, 1971, p. 24); however, pitches as low as the Ab below middle C and as high as the C# in the treble staff have been observed among 2-year-old singers, and individual differences and in rates of maturation certainly do occur. Many 2-year-olds only produce songs in short bursts or participate in singing by whispering or just listening (McDonald, 1979).

Two-year-olds, like toddlers, respond to music with movement at their own tempo and engage in what Zimmerman called “movement for movement’s sake,” which can lack an apparent organization or form (Zimmerman, 1971, p. 25). The perception of beat, tempo, and dynamics is one of the first musical abilities to develop in this period. At age two, body rhythms are faster than those of adults, and while children this age may be able to synchronize movements to a given beat for short intervals of time, they are not typically able to maintain synchronization. When using an instrument, toddlers and 2-year-olds are able to produce a beat with some consistency; however, more typically toddlers and 2-year-olds will be more interested in exploring the capabilities of an instrument or sound-producing object in a free-form manner. Their first rhythmic playing will likely be characterized by fast, regular, unaccented repetitive movements (McDonald, 1979).

Two-year-olds are able to perceive differences in instrument timbre and tone color; however, it may be difficult for them to isolate small parts or features of a piece of music. Rather, they experience and respond to the whole piece (Moorhead & Pond, 1978). Musical perceptions at this age are often beyond that of children's music-making abilities, and they enjoy listening to and experiencing music beyond the child-music genre.

By age three or four, children sing spontaneously in their natural vocal range and begin to match pitch in this range in tune with others. They can repeat, transform, combine, and develop their own musical ideas or those of others, and they are both open to new music and knowledgeable about the music of their own culture. Fine controlled movements may still be difficult for 3-year-olds and 4-year-olds, but they often dance or move spontaneously to music. When using instruments, they are able to regulate tempo or dynamic level, and can combine a variety of rhythms beyond just a steady beat. Three- and 4-year-olds are increasingly interested in the intersection of words and music, and may choose to use instruments or their bodies to produce sound effects for stories and poems (McDonald, 1979).

As a result of their social-emotional maturity, 3- and 4-year-olds are more able to participate constructively in group experiences. They are more able to listen as an audience member for short periods of time, particularly when the piece of music is of interest to them (McDonald, 1979). Their ability to describe and to use terminology may not yet match that of their understanding. Children often confuse labels such as "high and low" with "big and little." By age four, children are able to hear more degrees of variation than simply "loud" and "soft," or "high" and "low." Zimmerman reported that

the “most progress in pitch discrimination is made in early childhood” (Zimmerman, 1971, p. 11); children are first able to sing wide intervals accurately, and finer discrimination and accuracy continues to develop over time (Zimmerman, 1971).

### **Empirical Research From 2005 to 2017**

In order to explore the body of recent research pertaining to young children’s musical and music-making development, I conducted database searches of premier peer-reviewed journals in music education, early childhood research, and developmental research. I searched music focused journals (*Journal of Research in Music Education*, *British Journal of Music Education*, *Bulletin of the Council for Research in Music Education*, *International Journal of Music Education*, *Music Education Research*, *Research Studies in Music Education*, *Music Perception*, *Perspectives: Journal of the Early Childhood Music and Movement Association*, *Psychology of Music*, and *Psychomusicology: Music Mind Brain*) using keywords that pertain to early childhood (e.g., early childhood, young children, children, babies, infants, toddlers, preschool, day care, PreK, and development). I also searched early childhood and development research journals (*Child Development*, *Contemporary Issues in Early Childhood*, *Developmental Psychology*, *Developmental Science*, *Early Child Development and Care*, *Early Childhood Education Journal*, *Infancy*, *Infant Behavior and Development*, *International Journal of Early Years Education*, *Journal of Child Language*, *Journal of Early Childhood Research*, *Proceedings of the National Academy of Sciences of the United States of America*, *Psychological Science*, and *Science*) using musical domains and age-parameters when appropriate, (e.g., music, musical, pitch, rhythm, beat, listening, movement, singing, childhood). As the focus of this review was on the development of

musical skills, I eliminated studies in which music development was not the focus of the inquiry, or where music’s role in the development of other non-musical skills was being explored, such as studies that explored the connection between music study and reading skills.

This search revealed 82 published studies concerning the musical development of children from birth to age five that had been published in peer reviews journals since the year 2005. Forty-four of these studies were published in music related journals, 38 in early childhood or developmental journals. The most productive year for music education researchers was 2006, with numerous studies being published in both music and non-music focused journals (Figure 3).

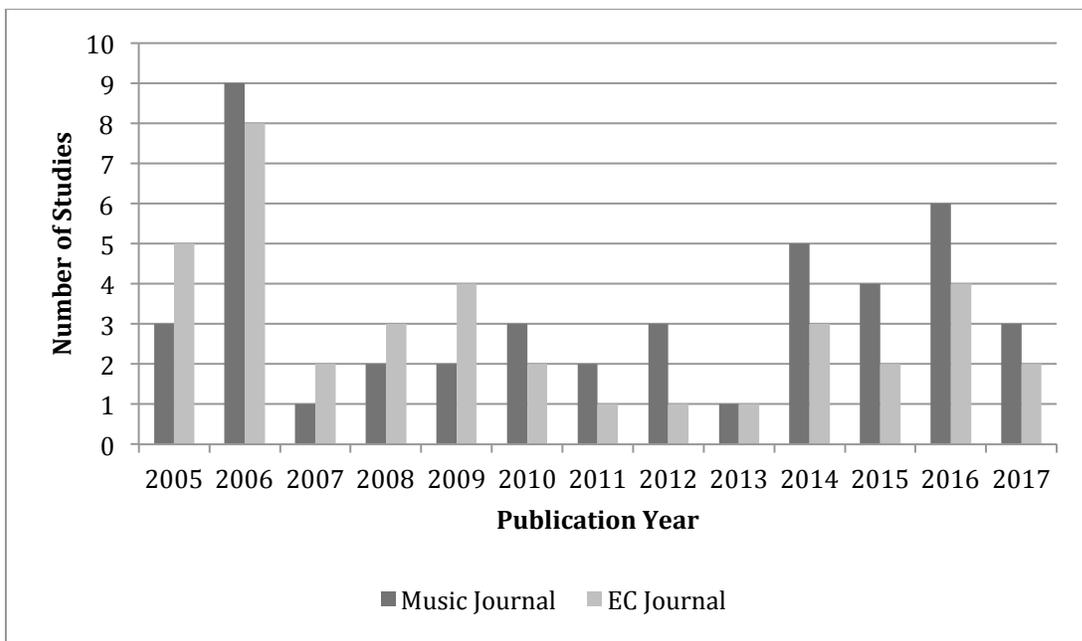


Figure 3: Number of Published Peer-Reviewed Research Articles, 2005-2017. *N* = 82. Note: 2017 frequency includes partial year data, up to 4/25/17.

The early childhood music research published since 2005 is broad in scope. The literature explores the development of both musical skill and understanding, including

singing and vocalizing ability, pitch awareness and tonal accuracy, awareness and abilities pertaining to meter, beat, and rhythm, the development of listening skills, spontaneous music-making individually and with others, and also infant and child music perception and preferences. Infants and Babies—birth to 1-year-of-age—were the most commonly discussed age group in the literature, particularly in child-development-focused journals, with 34 studies published. Music-related journals published more research related to older early childhood than to younger. In Figure 4 below, Infants and Babies include children from birth to 1-year-of-age, and Toddlers 1 to 2-years-of-age. Some articles are included in more than a single category. In the following sections, I discuss some of the notable findings from the recent body of literature concerning young children’s musical development by age category.

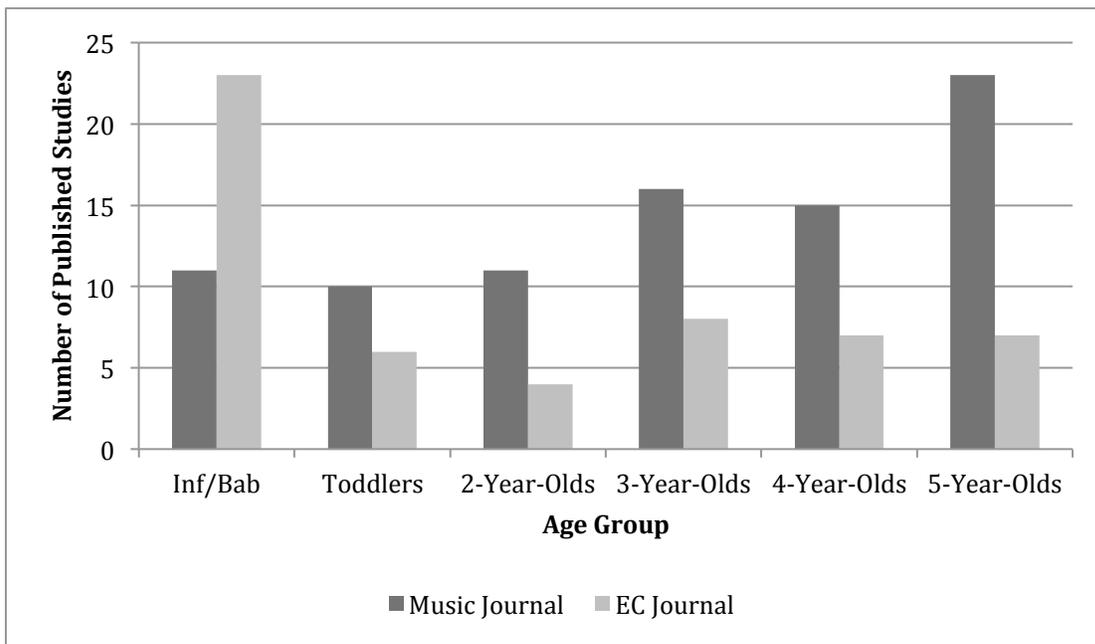


Figure 4: Number of Published Research Articles by Focused on Children’s Musical Development by Age Group, 2005-2017.  $N = 82$ .

### ***Infants and Babies – Birth to Age 1***

Research conducted with infants and babies often draws conclusions about infant musical ability through observations of how and when they choose to make sound independently or how they may respond to music in naturalistic settings (Addessi, 2009; Forrester, 2010; Hefer & Cohen, 2015; Koops, 2014). Researchers have explored how infants respond to familiar or novel musical stimuli and how their responses may or may not be connected to their previous music exposure and enculturation (Gerry, Faux, & Trainor, 2010; Gerry et al., 2012; Soley & Hannon, 2010). In experimental settings, researchers have explored babies' ability to differentiate between familiar and novel musical stimuli as well as their music preferences (Costa-Giomi, 2014; Costa-Giomi & Ilari, 2014; Ilari & Sundara, 2009; Mehr et al., 2016; Nakata & Mitani, 2005; Volkova, Trehub, & Schellenberg, 2006).

During the first year of life, children gather musical information about the world around them and begin to display preferences for some sounds over others. Musical understanding and established preferences have been recognized in children as young as 2-days old; newborn infants have shown a significant preference for consonant music over dissonant or disorganized music, indicating that the infants had received enough information from ambient sounds while in the womb that they were able to differentiate, and they prefer organized and expected musical material (Masataka, 2006). Studies with older babies have shown that they often prefer singing to speech, and that listening to singing, particularly music with a regular beat and a metric foundation, can offset distress and lead to longer periods of contentment (Corbeil et al., 2015). This preference for organized music is especially true when the music is familiar, such as music from the

child's own culture (Soley & Hannon, 2010). Babies prefer live musical interaction—such as having someone sing to them, or playing with a musical toy—to listening to recorded music (de l'Etoile, 2006).

The first year of life is characterized by building familiarity with music. In this period, children begin to make meaning through what they hear and through musical interactions with others. By the end of infancy, children may engage in music-making themselves through vocalizing, moving, or making sounds with instruments, particularly in response to something familiar and favored, such as their own mother singing a favorite song (de l'Etoile, 2006).

### ***Toddlers and 2-Year-Olds***

Research into the musical activity and development of toddlers and 2-year-olds has focused primarily on their spontaneous music-making in naturalistic settings (Alcock, 2008; Barrett, 2009, 2011; Cirelli, Einarson, & Trainor, 2014b; Forrester, 2010; Koops, 2014). Authors have drawn conclusions related to the effects of group music-making in music classes or in led activities (Cirelli et al., 2014b; Hefer & Cohen, 2015; Reynolds, 2006). As was seen in the Figure 6, there are few published studies with toddlers and 2-year-olds.

Research with toddlers and 2-year-olds has revealed that children of this age use music as a means of verbal and social communication, and that they continue to form musical perceptions, understandings, and opinions based on the sounds and musical activities of the world around them. During this period of development, young children's social-emotional development grows along with their understanding of music. Toddlers who move in synchrony with others engage in more prosocial behavior than do those who

move out of synchrony (Cirelli et al., 2014a; Cirelli, Wan, & Trainor, 2016). Toddlers have also shown that they have an understanding of emotions in music through their ability to appropriately match musical themes to facial expressions (Siu & Cheung, 2015). Children of this age learn social and cultural conventions in music, and their emotional perceptions and expectations are developing as well.

Toddlers and 2-year-olds also begin to engage in music-making behaviors, such as singing and making sounds with instruments. They begin to elongate their vowels and vary pitches in tandem with speaking, in the same way that one may elongate a vowel to produce a sung tone (Young, 2006). The acts of speaking and singing can be used in tandem by children this age; each feels as natural as the other, and Young (2006) has suggested that perhaps the act of singing within speech gives the words more “emotive and motive power”.

Toddlers may not exhibit the same musical behavior in groups, or in public, that they do on their own or at home. The same child who is observed being watchful, quiet, attentive, but non-participative in class, can be excited to make music and to share songs from the class once in the company of his own family. Apparent disinterest in one setting does not indicate a lack of musical ability, interest, or understanding (Barrett, 2009).

### ***Getting Ready for School Music: 3- and 4-Year-Olds***

In the last 10 years, no published experimental studies have focused exclusively on 3-year-old children. The literature includes primarily case studies, where children’s music-making and musical behavior are observed in naturalistic environments (Alcock, 2008; Custodero, 2006). Some music case studies have included 3-year-old children within a group of mixed ages, or have followed a child through several stages of

individual music development (Addressi, 2009; Alcock, 2008; Barrett, 2009, 2011; de Vries, 2005; Forrester, 2010; Hefer & Cohen, 2015; Knudsen, 2008; Koops, 2014; Lau & Grieshaber, 2010; Reynolds, 2006; Sims, 2005; Young, 2006). One published quantitative study involved 3-year-olds within a range of participants aged two to six (Sakakibara, 2014).

Three-year-olds involve singing in their daily lives, to explore family culture, and in play, and can use their singing in creative and unexpected ways (Custodero, 2006). Children this age enjoy singing, listening to singing, and exploring their voice, in interactions with objects and with other people; some sing without apparent self-consciousness, particularly those who have strong and frequent adult singing models (Custodero, 2006). By age three, children often have favorite tunes or activities that they request; however, their music-making does not always adhere to adults' ideas of what music should be (Custodero, 2006).

Once children reach the ages of four and five, they have considerable musical knowledge and established preferences that can contribute to how they approach music-making at school or elsewhere. Studies of 4- and 5-year-olds' music preferences have shown that culture and exposure have already influenced music activity preferences (e.g., singing, listening activities, instrument playing) by the time children enter elementary school (Yim & Ebbeck, 2009).

PreK-aged children often choose to invent songs as they had before, and they use this ability to communicate and to expand on what they already know and enjoy (Barrett, 2006). Invented song has been found to be both an extension of and essential to the development of creativity (Barrett, 2006). Invented music behavior decreased in most

children by the age of seven, the cessation of which can at least partially be attributed to the discouragement of such behavior at school and a continued exposure to a particular type of music-making that values certain models over others; however, at age four or five, children readily create original ideas and freely adapt rather than repeat what they had first created (Barrett, 2006). Although adults may see a child's inability to repeat an invented song as a musical weakness, children are often not concerned with exact reproduction—they use singing to elaborate ideas and to communicate ideas to the world; teachers who overemphasize the need to learn scripted songs and structured games may limit children's creative potential (Barrett, 2006).

Studies into the musical development of 4- and 5-year-old children also explore what children are able to understand and do musically. At age four, children do not appear to understand either key membership or harmonic relationships; they may perceive and gather knowledge about key and harmony up until this point in their lives, but are not yet able to display this knowledge. By age five, children recognize key membership, but may still not be able to show that they understand harmonic relationships (Corrigall & Trainor, 2014).

### **Reviews of Literature from Other Researchers (2000-2016)**

Several reviews of literature regarding young children's music-making and musical development have been published since the year 2000. Three of these reviews examined literature concerning the development of music skills (Kim, 2000; Miyamoto, 2007; Reifinger, 2006), two discussed music's relationship to the development of literacy or cognitive skills (Bolduc, 2008; Bugaj & Brenner, 2011), one reviewed work regarding infant music perceptions (Trehub & Hannon, 2006), one explored musical play and

spontaneous music-making in young children (Soccio, 2013), and another explored mother-infant musical interaction (Creighton, 2011). An additional review discussed the presence of contemporary music research in early childhood journals (Bond, 2012) and implications for early childhood teachers. In the following paragraphs, I discuss key findings and recommendations from these reviews of the literature.

In a review of literature of the musical characteristics of preschool-age students, Miyamoto (2007) used three categories to organize her discussion of the research: physiological responses to music (e.g., singing, moving, composition/improvisation), psychological responses and characteristics (e.g., cognition, discrimination, perception), and instructional considerations (e.g., pedagogy, preferences). She found that children's personal preferences were not likely to change as a result of teacher intervention or exposure to new music, and she suggested introducing new or unusual music with the goal of appreciation in mind, rather than attempting to alter student preferences. She also illuminated several instructional considerations, suggesting that the primary use of the pentatonic scale is not supported by the research literature, and that the approach should be expanded to include diatonic patterns as well. Miyamoto also found that some techniques from within fixed instrumental teaching methods (e.g., approaches to two-hand playing, fixed accompaniment tempos, minimal peer interaction, and fixed curricular goals) predicted poor results and she suggested these also be adapted (Miyamoto, 2007).

Kim (2000) focused a review on pitch matching and child vocal range and their relationship to developmentally appropriate practice in the early childhood music classroom. The literature was presented in three sections: descriptions of children's

singing characteristics; factors that influence children's pitch, including developmental factors (e.g., age, gender) and external influences (e.g., models, types of tasks, instruction); and, children's development as it relates to pedagogy in EC classrooms. In a final discussion section, Kim highlighted areas for future research and pedagogical implications. Kim suggested that early childhood teachers align their curriculum with fixed expected stages of vocal maturity, but cautioned that so doing may result in too narrow a view of what children are truly capable of doing. Kim also suggested that music with syllables or sound exploration, rather than words, and supportive accompaniments could result in more accurate and varied child singing (Kim, 2000).

Reifinger (2006) discussed the development of rhythm perception and rhythm performance in infants, preschoolers, and school-age children. Reifinger found that sound perception and responses to sound begin while infants are still in the womb, and that before they reach their first birthday, they are able to detect tempo and rhythmic changes in simple tone sequences. Infants whose mothers had sung frequently when they were in the womb displayed more varied vocal exploration than did children whose mothers did not frequently sing. Reifinger also examined the work of Moog (1976), a classic study that observed musical development beginning in infancy through movement and babbling, leading to singing pitches, rhythms, and eventually parts of known songs. Eventually, children coordinate words, rhythm, and pitch into singing songs by about age 2-and-a-half. Reifinger discussed findings from other literature showing children's ability to synchronize their movements to music, to keep the beat, or to echo a rhythm pattern through physical movements like clapping, tapping, or with the voice increased with age, but that many preschool-aged children continue to have difficulty with these tasks.

Younger children prefer a faster beat than adults do, which Reinfinger suggested should be kept in mind when selecting or presenting repertoire. Children are also more successful reproducing duple rhythmic patterns with an appropriate pulse than they are triple meter patterns. In his conclusions, Reifinger suggests that acquiring rhythmic skills is a combination of maturation, acculturation, and active learning—skills that will develop on their own, but will not continue to develop beyond childhood without further training and exposure (Reifinger, 2006).

Bolduc (2008) and Bugaj and Brenner (2011) discussed music's relationship to literacy. Bolduc found five studies that established correlations between music perception and aptitude and the various aspects of learning written language, including phonological awareness, and pseudoword (rhyming, syllables, phonemes) ability. Bolduc also found eight quasi-experimental studies that examined the effects of music instruction on literacy skills. Bolduc showed that music and language skills can be developed at the same time and that music can offer teachers an additional way to develop literacy, listening, and comprehension (Bolduc, 2008).

Bugaj and Brenner (2011) examined a wider expanse of literature than did Bolduc; their aim was to give a better understanding of existing instrumental programs that had a research component so that they could design an effective new first-grade violin curriculum. They observed four existing music programs that operated within schools, and programs using an arts-integration model. Additionally, they examined studies of the effects of music instruction on cognitive development and reading. Bugaj and Brenner found evidence in the literature that music study was positively associated with IQ and some evidence that music study can increase IQ. Bugaj and Brenner also

discussed potential links between music study and spatial-temporal ability and between music study and reading skill development; they found that most studies showed plausible links. The authors concluded that the greatest potential long-term gains occur when music instruction begins during the preschool and elementary school years. They also pointed out the difficulty in comparing the effects of different curricular programs on cognitive ability, something that should be carefully considered when designing a research-practice curriculum for young children (Bugaj & Brenner, 2011).

Trehub and Hannon (2006) reviewed literature on infants' pitch and temporal pattern perception and compared that literature to similar work concerning adults. Trehub and Hannon found that infants and adults share the ability to process pitch and to detect errors in tone sequences, but understanding tonality and temporal structure of music takes several years of enculturation to develop. Infants are able to group sound patterns, detect musical phrases, rhythmic patterns, metric organization, and discriminate between consonance and dissonance; many of these abilities also continue to develop with enculturation and exposure toward adulthood (Trehub & Hannon, 2006).

The purpose of a review of literature by Soccio (2013) was to identify and discuss the relationship between culture and musical play in the lives of young children. Soccio chose to define "culture" as that which the child brings from his or her home, and "school culture" as that which the child becomes a part of once they enter school—both cultures intertwine with how the child explores and makes meaning from musical play. Further, Soccio showed that the value of child play varies across cultures. Studies have shown that musical play is integral to a child's learning and musical development, and that children will readily participate in various aspects of making music (e.g., singing, dancing,

improvising) through play if they are allowed to come to explore these activities independently. Music skills can be further developed through the assistance of a music teacher or other leader, as long as that leader continues to provide opportunities for the child to freely explore music. Soccio points out that family and community culture greatly affect the experiences, exposure, and musical preferences of young children as well, and that research from ethnomusicologists shows that child music culture is an extension of adult music culture. Once in school, children's musical play is influenced by their peer relationships and by the conflict between the child's culture and the school's culture. Soccio suggested that educators consider students' varied cultural backgrounds when designing classroom activities, and that giving young children the opportunity to explore independently through musical play gives them the opportunity to explore their own culture, while also fostering their overall learning (Soccio, 2013).

In a review of the literature on mother-infant musical interaction and emotional communication, Creighton (2011) presents an in-depth discussion of the factors surrounding these interactions. Creighton examined musical behaviors that may strengthen the mother-child connection, including infant-directed singing, the use of lullabies, and music therapy interventions. Infants prefer a familiar voice to a novel voice, and they show a persistent preference for their mother's voice over any other. Creighton showed through the literature that the combination of sound, physical gestures, and facial expressions creates a dynamic form of communication between mother and child, which may be intuitive and universal. Creighton also found that the use of mother-child musical communication was less frequent than had been documented in the past, perhaps due to

parents' lack of time, low confidence in musical ability, or limited knowledge of repertoire (Creighton, 2011).

The purpose of a review by Bond (2012) was to synthesize and present relevant early childhood research in such a way that it would be useful to the large number of early childhood teachers who are responsible for teaching music in their classrooms. Bond found 38 relevant studies, most of which fit into seven categories: the extra-musical benefits of using music in early childhood settings, music strategies and recommendations for both general early childhood teachers and for music teachers, musical parenting including parental beliefs and practices, musical practices particular to the home environment, musical experiences of children in their everyday lives, musical practices at school, and arts-integration programs. Bond stated that music educators should work to expand the body of music research in early childhood journals as a way to influence the work of early childhood educators directly (Bond, 2012).

### **Recommended Pedagogy**

McDonald suggests that children are ready for planned group music experiences from birth. Both McDonald and Zimmerman suggest setting reasonable goals: learning to sing tunefully, learning to respond rhythmically through creative movement and through playing music instruments, and learning to develop attentive listening habits through opportunities to practice. These goals can be reached by providing experiences with pitch and timbre, objects that make sound, and an environment that values music. As children age, experiences should match the child's current abilities in terms of comfortable tempo and pitch range, free exploration with instruments, discussion, and observing (McDonald, 1979; Moorhead & Pond, 1978; Zimmerman, 1971). Young children should not be

expected to keep time or to match an adult pitch range; adults would do better to match their beat or key to that of the children (McDonald, 1979).

McDonald asserts that the best music to present for group music-making experiences is the music of children's immediate environments. Teachers can expand children's choices and references by what teachers present to them, but it is equally important to accept what they already know and prefer, both music that they listen to and the music that they make themselves. McDonald also questions whether music time needs to be arranged as a stand-alone class or as a reserved section of time in a child's life. Young children do not wait for music time to make music; they sing and move and play whenever they feel compelled. Perhaps music that is integrated into all aspects of their school and home is more in line with how they understand music and its function in their lives (McDonald, 1979, pp. 6–7).

### **Professional Organizations and Standards**

The Music Educators National Conference (MENC), now the National Association for Music Education (NAfME), began to take official public positions concerning early childhood music education during the second half of the twentieth century, coinciding with increased interest and enrollment in early childhood programs. By 1980, MENC was actively collaborating with the U.S. federal government to improve music education in the schools, which included a focus on the importance of music in early childhood. Since then, NAfME/MENC has driven EC music advocacy through the issuance of position statements and standards for EC music, support and resources for early childhood music publications and research, and by maintaining partnerships or

affiliations with other music and educational institutions and organizations (Overland & Reynolds, 2010).

A MENC Special Research Interest Group (SRIG) for Early Childhood was formed in the late 1970s and became an official NAFME group at the 1980 national conference, with 28 initial members (Overland & Reynolds, 2010). By 2016, according to Caroline Arlington—the NAFME SRIG Staff Liaison—the EC SRIG had grown to include 160 members.

MENC issued PreK music standards beginning in 1994 as a part of their comprehensive music education standards, the *Opportunity-to-Learn Standards for Music Instruction: Grades PreK-12*, and a follow-up publication, *The School Music Program: A New Vision* (MENC, 1994; MENC Task Force for National Standards in the Arts, 1994). Previous position statements, standards, and guidelines neglected to include information for infants, babies, and toddlers, and it was not until the publication of the above that MENC began to discuss preschool-aged children apart from elementary-school-aged children. *A New Vision* included a brief section regarding music experiences for infants and toddlers and more explicit standards for children aged two to four (Overland & Reynolds, 2010). In *The School Music Program: A New Vision*, the prekindergarten standards were centered on 10 core beliefs:

- All children have musical potential.
- Children bring their own unique interests and abilities to the music learning environment.
- Very young children are capable of developing critical thinking skills through musical ideas.

- Children come to early childhood music experiences from diverse backgrounds.
- Children should experience exemplary musical sounds, activities, and materials.
- Children should not be encumbered with the need to meet performance goals.
- Children’s play is their work.
- Children learn best in pleasant physical and social environments.
- Diverse learning environments are needed to serve the developmental needs of many individual children.
- Children need effective adult models.

(MENC Task Force for National Standards in the Arts, 1994, p. 9)

More specifically in *A New Vision*, music experiences for children aged two to four were expanded into four standards: 1. Singing and Playing Music; 2. Creating Music; 3. Responding to Music; and 4. Understanding Music (MENC Task Force for National Standards in the Arts, 1994). The language of the prekindergarten standards echoed that of the standards for grade K-12; however content and specifics regarding curriculum were distinctly less comprehensive than what was included for the older age ranges, nor was PreK included in the standards overview section: *Outline of Sequential Learning* (MENC Task Force for National Standards in the Arts, 1994, pp. 27–39). Although the authors of the 1994 MENC standards intended to highlight the importance of high quality early childhood music experiences, they did not include much detail in this document. A far more comprehensive document was published by MENC the following year: *Strategies for Teaching: Prekindergarten Music* (Sims, Mack, Freshwater, & Cassidy, 1995). This guide includes repertoire choices, classroom

sequences, and assessment indicators for each individual *New Vision* standard, but largely discussed the teaching of 4-year-olds, and not infants through 3-year-olds.

A 1997 MENC position statement, *Where We Stand*, concerning the importance of a comprehensive music education, did include a small section regarding PreK as well. However, neither specifics as to the length of time that music should be present during the school day, nor content requirements, nor specifications for training EC teachers were included in this statement. The information pertaining to kindergarteners and higher grade levels was more explicit (MENC, 1997). The 1994 *Opportunity-to-Learn* standards stated that at least 12% of the contact time in PreK and K classrooms should be set aside for music (MENC, 1994).

In 2014, NAFME reissued the *Opportunity-to-Learn Standards* along with a new set of *Core Music Standards*, emanating from the *National Coalition for Core Arts Standards* (NAFME, 2014a, 2014b). The 2014 updates again specified that 12% of the PreK school day should be spent on music, and included language pertaining to the kindergarten year, but did not specify standards for children younger than PreK.

The National Association for the Education of Young Children (NAEYC) and Head Start have also issued early childhood standards. However, these standards and organizational position statements rarely or never mention music, nor do they provide specifics as to curricular content areas or appropriate division of the school day. It is perhaps beyond the reach of NAEYC or Head Start to make very definite statements regarding any particular academic domain. NAEYC mentions “creative expression” as a necessary component of the EC curriculum, but does not specify what that area should include (NAEYC, 2005). Within NAEYC’s position statement *Developmentally*

*Appropriate Practice*, music is listed as one of the many academic domains that teachers are encouraged to plan for in their classrooms; teachers are also encouraged to choose and design curriculum and set goals for music (NAEYC, 2009a). In the Head Start Act, the creative arts are listed among the required domains that must be offered by each Head Start institution. Again, it is not specified what the creative arts must include or how much time in the school day or week must be devoted to music or to other arts disciplines. Partnering programs are given the ability to make their own determinations about the school day and curricula, and this extends to music as well (Improving Head Start for School Readiness Act, 2007, p. SEC. 641A).

### **Commercial Products and Pre-Packaged Early Childhood Music Programs**

There are many widely used extant early childhood music curriculum programs available today, including recordings and materials for home and school use (e.g., *Little Einstein's*, Laurie Berkner, Raffi). *Suzuki Early Childhood Experiences* or *Gymboree* adult/child group classes for infants and older, and perhaps the most well known of the EC music companies, *Music Together*, offer group classes for adults and children around the world. In the following section, I discuss several of these extant EC music offerings and their role in the early childhood classroom.

### **Commercial Recordings and Materials for Home and Classroom Use**

Many children's music recordings are currently available, representing diverse genres of music. According to the *Billboard Charts*, the currently most popular commercial recordings from the "Kids Music" genre are soundtracks from children's movies and television (e.g., *Moana*, *Trolls*, *Beauty and the Beast*), and recordings of

child-friendly cover arrangements of current pop tunes (e.g., *Kidz Bop*), and holiday selections (www.Billboard.com, 2017, November 28). iTunes's most commonly downloaded children's music (on November 28, 2017) revealed a similar list of favorite recordings, along with current pop hits (e.g., Selena Gomez, Dove Cameron) and popular children's singers (e.g. Raffi, Laurie Berkner).

There is little documentation of how much time in early childhood care settings is spent listening to music or what music teachers or caregivers choose to play in classrooms. Previous surveys have revealed that music recordings are almost universally present and used regularly in EC settings, and that group singing and movement activities in EC classrooms and centers is often accompanied by recordings. Further, the survey respondents to Nardo and colleagues (2006) reported using music primarily from the child music genre (e.g., Raffi, Greg and Steve, Hap Palmer, and Ella Jenkins).

### **Adult/Child Group Classes**

Adult-accompanied early childhood music classes exist in a variety of formats and are offered by various organizations and private businesses (e.g., non-profit or for-profit community arts organizations, stand-alone music teachers, part of a widespread franchise such as those courses offered by the Suzuki Association of the Americas, *Kindermusik*, *Gymboree*, or *Music Together*). Content, structure, and curricula vary from program to program, with many of the programs requiring that potential teachers complete a course in the program's curriculum and method in order to obtain employment or to teach using the brand's name (*Gymboree Play & Music*, 2016; *Music Together*, 2016; Suzuki Association of the Americas, 2016a, 2016b).

Families choose to sign up for an early childhood music class for a variety of reasons: some do so to encourage their children towards musical goals, others in order to stimulate their child's intellectual development, and others to provide their child with an enjoyable peer activity (Hamilton, 2014). Likewise, the musical experiences in adult/child settings are potentially individualized for each child, since so much of what the child experiences outside of class and interactions in class can be determined or influenced by adults. Even with uniform direction and coaching from a class instructor, parents and caregivers who accompany children to early childhood music classes are free to practice, interact with their child, listen at home, or participate in any way that they see fit (Hamilton, 2014).

## **EARLY CHILDHOOD TEACHER TRAINING IN MUSIC**

Adults of all backgrounds provide music to young children, including general classroom teachers, trained music teachers, parents, and caregivers. In this section, I discuss adults who seek out music education training, available options for such training, and the types of music and teaching skills that are most beneficial in making beautiful music with the children in their lives.

### **Early Childhood Center-Based Teachers and Caregivers**

The *2012 National Survey of Early Care and Education* reveals many details about typical early childhood center-based teachers and caregivers. In the United States that year, there were approximately one million paid center-based staff working in direct daily contact with young children under the age of 5, not including directors, administrators, and specialists. Most (45%) were lead teachers, responsible for daily

management of a classroom, 21% were other teachers and instructors, 22% were assistants, and 11% were teacher aides. Most were employed by non-publicly-funded programs (59%), 6% were employed in school-sponsored programs, 14% in Head Start programs, and 21% in UPKs (Datta et al., 2013).

The required level of training or education to work in a center-based program varies greatly. NAEYC acknowledges that in the absence of a standardized public early childhood system in the United States, the goal of most training and credentialing programs is to prepare teachers for employment in a variety of settings (NAEYC, 2009b). As early childhood education has received more attention in recent years, early childhood higher education has grown, and attempts to standardize pre-service ECE instruction have begun to emerge (NAEYC, 2009b).

In ECE higher education degree programs, NAEYC recommends that EC education students focus on developmentally appropriate practice, early childhood curriculum, assessment, and evaluation. Early learning standards are stressed, specifically, training in mathematics, English Language Learner screening and assessment, training in linguistic and cultural diversity, and working with students with disabilities (NAEYC, 2009b).

Also mentioned by NAEYC, although not stressed, are many areas of study more directly related to the development of young children. These domains include an emphasis on play, families, child development, culture, and ethical behavior. Direct experiences with children through field work are also mentioned as important, but again, not highlighted as a suggested requirement for ECE training programs (NAEYC, 2009b).

Head Start has its own training and educational requirements for teachers, and these standards have changed over time (Administration for Children and Families, 2011). Presently, in any given Head Start program, 50% of the faculty must hold a bachelor's degree in Early Childhood Education or a related field, and all must hold an associate's degree or a C.D.A. (Child Development Associate) credential, or be working towards an associate's or bachelor's degree as of 2013 (Administration for Children and Families, 2011; Office of Head Start, 2017).

The 2012 *National Survey of ECE* report found that the number of ECE teachers with a bachelor's degree or higher in all center-based settings appeared to be increasing, an occurrence that could be due to an increase in public and governmental focus on ECE (Datta et al., 2013). The education level of teachers tended to be higher for those serving students ages 3 through 5 as opposed to birth through 3: 45% of teachers working with 3-through 5-year-olds held a bachelor's degree or higher in 2012, as opposed to 19% of the teachers working with infants and toddlers (Datta et al., 2013). Head Start reports their percentage of workers with bachelor's degrees to be higher than the average found in the 2012 *National Survey of ECE*. In 2014, 71% of Head Start teachers held at least a bachelor's (Office of Head Start, 2017). The percentages of higher education degrees in non-Head Start early childhood programs, however, is perhaps even higher; this number was found to be 88% in a 1990 study (Kisker et al., 1991).

The 2012 *National Survey of ECE* also reveals that the education level and mean compensation of ECE center-based teachers appear to be correlated, with those holding a bachelor's degree earning noticeably more than their colleagues with only a high school education. Teachers employed by school-sponsored programs also tend to earn higher

wages. ECE teachers do not earn as much as peers with similar educational levels in other fields; the typical ECE teacher with a college degree earns \$14.70 an hour, but U.S. Census data reveals that the average person with a college degree in other fields earns \$27.00 an hour. Teachers with the lowest earnings were those with the least education who were working in Head Start programs. Across all educational levels, the median hourly wage of an ECE center-based teacher was \$10.60 an hour in 2012, which if converted to a full time salary would equal \$22,000 a year. This salary is less than what is considered “low-income” for a single person; “low-income,” or 200% of the Federal Poverty Threshold, for a single person with no children in 2016 was \$24,972 (Datta et al., 2013, pp. 11–13; United States Census Bureau, 2017).

### **Early Childhood Teachers and Caregivers Leading Music**

In 2005, a national survey of NAEYC-accredited institutions explored the state of music in early childhood programs of high quality (Nardo et al., 2006). Nardo et al.’s survey was based on NAFME PreK music standards, and covered areas including school or center demographics, teacher preparation, and how and why music was used in classrooms.

The majority of programs offered students musical experiences. Most notably, 28% of responding programs offered short durations of teacher-directed and planned music experiences four to five times a week, and only 14% never had teacher-directed music in their centers. Additionally, 81% of programs responded that their students had musical free-play time. Singing was the most frequent music activity in the centers, with 93% reporting daily singing in their school, and the remaining 7% reporting that singing occurred at least once a week. Rhythm instruments were commonly used, and some

centers also owned accompanying instruments, such as pianos, guitars, or autoharps (Nardo et al., 2006).

Nardo and colleagues also found that music experiences were not typically facilitated by a designated or trained music specialist. More often, general early childhood teachers or caregivers were the ones responsible for teaching or leading music (79% of programs), with most of these teachers also being responsible for creating their own music curricula (69%). This finding was largely unchanged from survey results in previous years (Daniels, 1992; Golden, 1989; Tarnowski & Barrett, 1997).

Only 6% of centers utilized commercially available extant music curricula in their schools (Nardo et al., 2006). Having non-music teachers teach music is potentially problematic given that early childhood pre-service preparation typically does not require music training. This lack of support in the area of music was evident in Nardo and colleagues' results as well; the teachers reported feeling unprepared for the responsibility and uncomfortable singing. As a result, music was often used as a background activity in schools, rather than as an activity in its own right (Nardo et al., 2006).

Early childhood teachers who are asked or required to teach music are in need of accessible and applicable in-service pathways toward developing their musical skills. Teachers in Nardo and colleagues' (2006) survey indicated that they preferred to attend workshops and clinics to receive in-service music training, but it was unclear whether available offerings provided useful or practical skill building. Commonly known music teacher trainings, such as *Kodály*, *Musikgarten*, *Orff-Schulwerk*, *Kindermusik*, and *Music Together* were rarely utilized as sources of training (Nardo et al., 2006).

Early Childhood Music Education has not yet emerged as a comprehensive sub-field of music education, nor has a need for early childhood music teachers been established in the field of early childhood. Prohibitive cost, lack of training, and little understanding about the role of music in early childhood have inhibited the development of a consistent standard of early childhood music and its potential role within center-based programming.

### **Parents and Caregivers who Nurture Music Development at Home**

Music-making at home is an important source of young children's music culture and learning. Of course, it is impossible to know what goes on with music in every home, but previous research has shed some light on parents' beliefs and use of music with their children. Children make music with and without their parents in a variety of personal family environments, in the car or the home (Custodero, 2006; Koops, 2014).

Parents make many of the decisions about home music, and their personal preferences and beliefs influence the musical lives of their children. Often these choices are motivated by the child's developmental or social needs (Custodero & Johnson-Green, 2008; Johnson-Green & Custodero, 2002). Music at home serves as a channel for cultural transmission and for social-emotional development and support of young children. Families use music to share memories and to teach cultural traditions (Custodero, 2006). Music, particularly singing, also supports and contributes to parent-child relationships through face-to-face and verbal interactions. Parents often choose what music to share in order to regulate children's emotions, such as playing or singing lullabies for sleeping or calming (Custodero & Johnson-Green, 2008).

An analysis of music's presence in parenting magazines found that the majority of articles that mentioned music discussed its role in reducing stress and supporting children's emotional regulation. Music was most often written about as providing sources of fun and entertainment for children. The use of music to support musical development was the least frequent topic in parenting magazines. Parenting magazines lacked clear recommendations regarding music for parent readers, and that the authors of the articles rarely cited empirical music research (Sims & Udtaisuk, 2008).

The Parents Use of Music with Infants Survey (PUMIS) (Custodero & Johnson-Green, 2003; Custodero, Rebello Britto, & Xin, 2002) found that a majority (69%) of parents sang with their children every day; most of those singing parents chose to sing lullabies. Parents who were sung to by their own parents were most likely to sing to their children. Parents who had sung in a choir were also likely to sing with their children at home, but having played an instrument previously were not related to parental singing at home. Almost all of the responding parents disagreed that singing should be reserved for only those with beautiful voices (Custodero & Johnson-Green, 2003). In a follow-up analysis of the PUMIS surveys, family singing was seen to fit into three broad categories: singing as a part of daily routines, singing to support family and cultural traditions, and singing as a function of play (Custodero, 2006).

The majority of survey respondents to the PUMIS (64.5%) also reported playing recorded music at home every day. Classical and rock music were the most popular genres of music to play. Children's music was also popular to play at home, albeit less so (37%). Custodero and Johnson-Green also found that the past instrumental and musical

experience of parents was related to their chosen genres of music to play at home (Custodero & Johnson-Green, 2003).

### **Developing Early Childhood Music Teachers**

In order to support higher quality music experiences for young children in early childhood settings, general teachers and caregivers would benefit from access to high quality music and music education training. Such training can take into account the principles and techniques of effective learning, and also be flexible and accessible to a large variety of interests and economic circumstances. In the following section, I explore the areas of musicianship and teaching that could be developed among early childhood teachers who wish to enhance the music-making in their classrooms, as well as potentially effective ways to teach these areas. I also discuss previously researched in-service teacher development programs in music.

### ***Developing Musical Abilities of Teachers***

Early childhood music teachers can serve as positive musical models for students, and should ideally be able to sing in tune and to make music beautiful. MacDonald and others have suggested that the musical abilities of EC teachers do not necessarily need to be extensive, and that perhaps the most important things to be able to do are to sing with joy, create simple rhymes or chants in the moment, pick up a child's rhythm on an instrument and to join in, share favorite music with the children, and show an overall appreciation and approval of children's efforts at music-making (Greer, Dorow, & Hanser, 1973; McDonald, 1979).

Data from non-musician primary-school teachers have shown that teachers tend not to have substantial knowledge of music theory, musical notation, composition, playing an instrument, or music education standards (Capaldo, Muscat, & Tindall-Ford, 2014; Holden & Button, 2006). Existing programs that develop the music knowledge, overall musicianship, and skills of early childhood teachers have been shown to create significant improvements in singing quality and overall musical knowledge, particularly through the inclusion of private singing lessons, repetition of singing, and materials that are geared for the non-musician learner (Capaldo et al., 2014; Kim & Choy, 2008; Neokleous, 2015; Siebenaler, 2006).

### ***Developing Confidence in Teachers***

Insecurity about one's lack of musical ability can hinder teachers from making music with their students. Those with underdeveloped musical ability may be unable to provide beautiful music experiences in the classroom, but perhaps even more troubling is that those with low confidence may convey a lack of enjoyment and transmit negative emotions about music to the children in their class (Siebenaler, 2006, p. 14).

Holden and Button (2006) asked general teachers to rank their levels of confidence for teaching 10 academic subjects. Music ranked the lowest on average. Teachers in this study commented that they viewed music as a specialist subject, and that they felt limited by their inability to read music, afraid of the idea of singing, and fearful of having to teach notation that they did not understand. Those with previous music experience and those who participated actively in music in their own lives were, perhaps unsurprisingly, more confident in their ability to teach it. Novice teachers in this study were also marginally more confident in their ability to teach music than were their

colleagues who had been in the classroom longer; the authors suggested that this could be due to a recent increase in pre-service music training in EC professional preparation in the UK, where this study was conducted (Holden & Button, 2006).

Courses designed for non-musician teachers has resulted in positively increased perceptions of music ability, and an improved level of confidence in one's ability to teach music (Kim & Choy, 2008; Siebenaler, 2006). Practice and exposure improves teacher confidence levels, and perhaps by extension the likelihood of presenting more and better music in the classroom.

### ***Observing Expert Teachers in Real Settings, Practicing, and Getting Feedback***

NAEYC asserts that practicum experiences, field work, and student teaching are necessary components of early childhood teacher preparation (NAEYC, 1993, 2009b, 2009c). Observation gives student teachers a chance to see curriculum in context, and it also gives them experience seeing a wide variety of possible EC settings (NAEYC, 2009b). The opportunity to practice teaching and to receive feedback is also helpful, and the NAEYC preparation and certification guidelines recommend that pre-professional teachers have opportunities to work with at least two or three EC age groups before leading their own classrooms (NAEYC, 1993). Student teaching is not a part of every teacher and caregiver's pre-professional experience, however, as many do not complete an undergraduate degree in teaching before entering the field (Datta et al., 2013).

The need to observe, teach, and get feedback from a master teacher is perhaps stronger when the subject area is unfamiliar to the teacher, as it is with many EC teachers and music. Observing expert early childhood music teachers at work may contribute to the learning process of non-musician early childhood teachers and illustrates theoretical

ideas and curriculum in context, providing observers opportunities to see that teaching music is within their capability. Research has shown that non-musician teachers feel that seeing a music specialist in a classroom would be helpful (Holden & Button, 2006). As was previously discussed, most EC programs do not employ a music specialist (Nardo et al., 2006). Among programs that do employ a music teacher, it is unclear how many music specialists spend time coaching or giving feedback to their non-musician colleagues.

### ***Maximizing Existing Teaching Skills***

Effective EC teachers and caregivers may possess many of the skills that they need to facilitate high-quality music activities with their students. The *NAEYC Standards for Early Childhood Professional Preparation* include a list of the competencies that teacher should have at the end of their training (NAEYC, 2009b).

NAEYC's competencies directly align with NAFME's stated positions on what early childhood music teachers should be able to do (MENC, 1991). NAFME's early childhood music and NAEYC's early childhood positions are given below. NAFME states that the teachers of young children should:

Love and respect young children; value music and recognize that an early introduction to music is important in the lives of children; model an interest in and use of music in daily life; be confident in their own musicianship, realizing that within the many facets of musical interaction there are many effective ways to personally affect children's musical growth; be willing to enrich and seek improvement of personal musical and communicative skills; interact with children and music in a playful manner; use developmentally appropriate musical materials and teaching techniques; find, create, and/or seek assistance in acquiring and using appropriate music resources; cause appropriate music learning environments to be created, *and*; be sensitive and flexible when children's interests are diverted from an original plan. (MENC, 1991)

NAEYC states that effective early childhood teachers should:

Promote child development and learning (understand child development, create safe and appropriate spaces and activities); build family and community relationships (creating reciprocal relationships, understanding diverse communities); observe, document, and assess (utilizing goals, effective assessment); use developmentally effective approaches to connect with children and families; use content knowledge to build meaningful curriculum (understand academic domains, essential concepts, and resources), *and*; become and work as a professional (adhering to ethical guidelines and professional standards). (NAEYC, 2009b)

Non-musician early childhood teachers may be surprised to learn that they already possess many of the skills that are necessary to implement a new curriculum area in their classroom, and that developing their own personal musicianship may be the only thing that is necessary. On the other hand, teachers who do have excellent music skills may have further difficulty introducing music in their classroom if they lack in effective teaching ability in general.

### ***Pre-Service Early Childhood Music Education***

A search of available college majors in the United States revealed that there are 458 colleges or universities where one can major in Music Education, and 307 where one can major in Early Childhood Education, but there are no institutions of higher education where one can major in exclusively Early Childhood Music or Early Childhood Music Education (The Princeton Review, 2016). Some music education programs offer coursework in early childhood, or an area of focus in early childhood, but early childhood music is not currently studied or credentialed as a stand-alone field. At one time there were various types of music education teaching certificates that students could choose from—instrumental, choral, or general music—and some states and schools continue to

offer separate tracks for certification. By the early 2000s, the majority of states (34 as of 2013) offered an all-encompassing music education certification in K-12 or P-12 (Groulx, 2016). In a survey of music teachers regarding their perceptions of the value of the various courses they took in their undergraduate preparation, teachers expressed a desire for more specialized programs. The surveys also showed that perhaps a completely specialized approach in the field would not be practical, since so many teachers had had occasion to teach outside of their area of specialization, and had therefore benefited from a more generalized approach to their music education preparation (Groulx, 2016).

There is little opportunity to study music within Early Childhood Education majors or CDA certification programs. The majority of required course offerings address child development and developmentally appropriate practice, social-emotional development, classroom management, collaborating positively with families and the community, general early childhood pedagogy, observation and assessment, professionalism, and procedures for recognizing and reporting child abuse (Buettner, Hur, Jeon, & Andrews, 2015). Professional preparation is likely to include broad areas of study that will be relevant to a wide variety of settings, and more specific knowledge of music as a curricular domain is supplemented by a teacher's personal knowledge, outside study, or perhaps in-service training.

### ***In-Service Early Childhood Music Professional Development***

Some of the early childhood music businesses, such as *Music Together*, also offer in-school programs, teacher training programs, materials, and recordings along with their stand-alone adult/child classes (Music Together, 2016). Previous surveys of accredited early childhood centers have shown that the majority of non-musician early childhood

teachers design their own curricula, and that very few use commercially designed music programs in their classrooms. Less than 10% of teachers responded that they had used *Kindermusik*, *Music Together*, or the like as a source of training (Nardo et al., 2006). There are many potential reasons why teachers may not participate in such trainings; they may be financially prohibitive or they may not fit into every school environment. Also, teachers may not be aware that these types of trainings exist. Individual child care programs may choose to include music in their curricula and training, but there is evidence that it does not receive as much attention as do other academic or administrative domains (Buettner et al., 2015; Nardo et al., 2006).

It is also unlikely that early childhood teachers are able to find professional development through conference and external workshop participation. I conducted a simple search through the Texas Music Educators Association (TMEA) 2016 convention schedule for sessions and research concerning early childhood topics. Using the keywords early childhood, PreK, preschool, infants, toddlers, babies, Head Start, day care/daycare, and young children, and then reading through the resulting sessions, I found a very limited amount of early childhood focused information at the conference. Three out of 51 research posters were related to children under the age of five, and only one session included PreK in the age range of the description, but was not specific to prekindergarten music (TMEA, 2016).

I also conducted a similar search of NAEYC's 2016 Conference program, using the keyword music. Twenty-two out of the 341 sessions offered at this conference mentioned music in their descriptions. In some sessions, classroom music was the primary focus. In other sessions, music was presented along with cognitive development,

literacy, social-emotional development, family engagement, or other topics (NAEYC, 2016).

Long-term in-service music development programs for teachers and caregivers have previously been attempted and studied. De L'Etoile (2001) explored teacher behavior as a result of participation in three music education workshops spread over a four-month period. Participants were videotaped teaching infants and toddlers in their classes at the beginning of the study and after each of the three workshops. Pre and post videotapes were then analyzed for the presence of critical early childhood music teacher behaviors as determined by a panel of early childhood music experts. In addition, the research measured teacher attitudes concerning leading music, tests covering the content of the workshops, and observations of the children's engagement in the music sessions. De L'Etoile (2001) found that participation in the workshops improved teacher performance in several domains; significant increases were seen in positive teaching affect, rhythmic accuracy, and the use of developmentally appropriate songs, with large positive effects seen in other song-presentation and musical skills. The children's vocal engagement in music increased significantly as well. Teachers also reported a significantly increased positive attitude about their abilities to lead music. The analysis of this particular training program showed that workshop training could lead to an increase in some desirable music-teaching behaviors but not in others. This study did not explore the role of the instructor in the learning and development of the students, and it is unclear what roles observation, coaching, and attempts to teach with immediate feedback may play in the development of early childhood music teachers (de l'Etoile, 2001).

### *Issues Concerning Adult Learners*

Creating a successful in-service music development program for early childhood teachers presents challenges. Working with adult learners, particularly adult beginners in music, may require different instructional approaches than are typical in music programs for children and youth. Adults participating in music instruction have reported that the most important feature of a strong music program is the instructor's knowledge, encouragement, patience, and ability to provide clear and specific explanations (Bugos, 2014). Surveys of adult learners who were enrolled in group piano or percussion classes indicated that it was frustrating when the instruction moved at too fast a pace, and that students also felt negatively about having to perform or to play in front of a group. Others found that learning the functional aspects of music-making (bimanual coordination, fingering, or mastery of rhythms) was challenging. Finding time to practice was also difficult for adult students (Bugos, 2014).

Surveys of the perceptions and practices of music teachers who are experienced in teaching adult students revealed some of the unique aspects of creating successful music instruction for adults (Bowles, 2010). The majority of teachers set different learning goals for adult students than they did for young students. Goals for adult students were more flexible, collaborative, and often were set by the adult students themselves. As a result, instruction was often more individualized for adult students than it was for children; this practice has also been advised by music pedagogues (Myers, 1992). Many teachers of adult music learners incorporate more discussion and intellectual analysis in the lessons, and provide more direct, abstract, and detailed feedback than they would for younger

learners (Bowles, 2010). Opportunities for self-evaluation are also important components of adult instruction (Bowles, 2010; Myers, 1992).

Instructors who responded to Bowles (2010) also discussed the difficulty of changing adult habits and of balancing lessons with other aspects of life; many cancel lessons, have issues with scheduling, or fail to practice. Teachers of adults should be prepared to adapt for varying levels of skill, and particularly to help adult students overcome vocal inhibition, a concern that was mentioned by a third of respondents (Bowles, 2010).

## **CONCLUSION**

Young children are innately musical. They use musical behavior and knowledge to make sense of the world and to communicate with those around them. Whether they attend preschool or group day care, children will develop into music makers, and music skill can certainly develop without the support of a teacher. But for the growing number of young children who attend center-based care, the experiences they have there play a role in the music that they learn to create as well as their readiness for school music. For teachers who wish to make high quality music in class, there is limited professional training and support, leaving teachers to seek out their own resources or attempt to make connections between classroom music and the music of their own lives. As preschool and day care continue to expand in the United States, and as more public schools begin to include PreK, pedagogy for young children will become a topic of more interest in music education.

The goals of music educators are for students to develop appreciation for exquisite music and to make music an ongoing part of their lives. If the music that

children hear, move to, play instruments with, and sing is beautiful, then they may be more likely to create and seek out beautiful music in the future. Equipping early childhood teachers for music may lead more children to high quality music experiences, and can build the foundation for future music-making. More research is needed into the musical development of early childhood teachers and how best to support their development.

## **Chapter Three: Program Development and Implementation**

### **INTRODUCTION**

The present study was conducted over the course of the fall semester of 2016. The primary goal of the project was to design and deliver in-service music professional development in new and innovative ways. As such, the program design included elements that extended beyond a single professional development session in order to maximize teacher learning. The program included multiple hands-on workshops, and importantly, focused on each teacher's music and teaching skills within an atmosphere that fostered independent goal setting and choice.

I collected information about each teacher's music background in order to build upon what each knew and did well. Teachers then had frequent opportunities to observe an expert music teacher working with the teachers' children in their regular school classrooms, followed by co-teaching experiences with the expert, and eventually independent teaching with feedback from the expert. In the following chapter, I describe details of the design and implementation of the *Musical Lives Program*. I served as the expert early childhood music teacher throughout the study.

### **SETTING**

The program was conducted within the three Child Development Centers that are affiliated with The University of Texas at Austin (UTCDC). In the following section, I provide a description of the UTCDCs and their faculty, as well as a rationale for their selection.

## **Selection and Description of The University of Texas Child Development Centers (UTCDC)**

During the initial stages of planning the teacher development program, I sought to find multiple early childhood centers that covered a broad range of ages encompassing all of early childhood, birth through PreK if possible. I also knew that I would videotape as many of the classrooms as possible. Since I anticipated difficulties in securing consent from parents for videotaping in multiple classrooms at multiple schools, I considered The University of Texas at Austin Child Development Centers (UTCDCs), where parental consent for research and videotaping is routine. I met with the Director of the three UTCDCs in February of 2016 to discuss ideas about the *Musical Lives Program* and to ask about the possibility of faculty participation.

The UTCDCs employed 78 teachers at the time—teachers who had a range of educational backgrounds and years of teaching experience. The centers enroll children from 6 weeks of age through prekindergarten, and regularly serve as sites for university research. When children enroll, parents and guardians are asked whether they will give written consent for their children to participate in research and to be videotaped, a procedure that allowed me to more easily identify teachers, classes, and children for the program.

The three centers are administrated by a Director, a Curriculum Coordinator, three individual Site Directors, and three Assistant Site Directors; three receptionists provide additional administrative support. Each center employs full and part-time Lead and Assistant teachers, as well as temporary child care workers, food service staff (two out of the three centers serve lunch), and student volunteers from the University (Figure 5).

Enrollment numbers differ among the centers, but all three include classrooms for infants through PreK. The UTCDCs can best be described as day care centers where families may enroll their children year round in full-day care; the centers serve the faculty, staff, and students of The University of Texas at Austin.

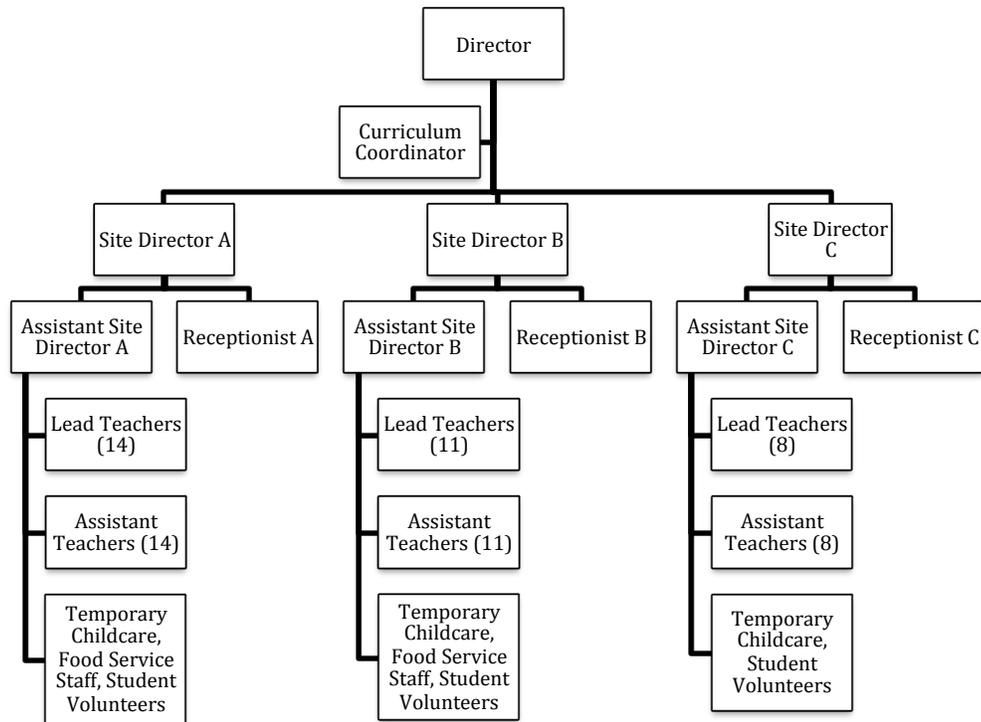


Figure 5: Diagram of UTCDC Hierarchy, 2016-2017 School Year

The UTCDCs are certified 4-Star (the highest rating) by Texas Rising Star, the early childhood education and care accreditation system administered by the Texas Workforce Commission (Texas Rising Star, 2017). The centers are evaluated on the qualifications of the directors and staff; the quality of caregiver-child interactions; group sizes and ratios; curriculum; nutrition; indoor and outdoor activities; and parental involvement.

## **PARTICIPANTS**

### **Recruitment of Participants: Initial Contact with Directors and Participant Pool**

When I contacted the Director of the centers in February of 2016, she expressed interest and confirmed that none of the centers had a music specialist. There was no music curriculum for the centers and music experiences for the children varied as determined by individual teachers.

The Director suggested that I lead a music professional development session, present the outline of the proposed program to the teachers, and gauge their interest at their annual faculty retreat. I provided the teachers with the following workshop description in advance of the session:

#### **Exploring Music with Young Children:**

In this hands-on workshop, early childhood teachers will delve into music through singing, moving, playing instruments, and storytelling. Music is a part of young children's everyday lives - it enlivens our classrooms and ignites the young child's imagination, learning, and development. The workshop will also include the presentation of a unique music development and research opportunity for early childhood teachers. Come prepared to make music - no experience required.

Approximately 70 faculty members (Administrators, Lead, and Assistant teachers) were present. During the session, I outlined the importance and unique role of music in the early childhood years and led the teachers through several music activities that could be used in their classrooms including circle time songs, a movement activity, and a musical dramatic play activity. I designed the hands-on workshop to approximate the experience of having a music class in their classroom, and teachers were encouraged to participate, ask questions, sing, play instruments, and move. At the conclusion, I spoke broadly about the *Musical Lives Program*, telling the faculty that the program would

begin in the fall, and would focus on our making music with their children so as to enhance the musical environment of their classrooms.

The Director contacted faculty who attended the session and found that everyone who attended was either interested in participating in the *Musical Lives Program* or interested in hearing more. This positive response was a good indication that I would have enough participant teachers for the program.

### **Description of Participants**

Permanently employed teachers at the centers are employed either full- or part-time, teaching varied schedules (e.g., some morning until mid-afternoon, others late morning until end of the care day). Temporary child care workers (also known as floaters) provide classroom coverage when the Lead or Assistant teachers take a scheduled break, hold parent conferences, or are absent.

Teachers have varying amounts of education, training, and years of classroom experience. In order to meet state requirements and to maintain Texas Rising Star accreditation, every faculty member at UTCDC must either have obtained or be studying to obtain a Child Development Associate (CDA) credential; some also have college or graduate degrees in addition to the CDA credential (Texas Workforce Commission, 2017).

Throughout the care day, Lead and Assistant teachers have many responsibilities in addition to providing children with an age appropriate curriculum. They supervise free time in classroom centers and on the outdoor playgrounds; serve lunch and snacks; oversee daily rest time; attend to children's hygiene and health, which includes bathroom training (in some cases), diapering, and hand washing, and monitor the classroom and

materials for cleanliness and sanitation. Teachers also assess student learning, engage in required and optional professional development workshops, and hold parent conferences twice a year.

At the beginning of the fall semester of 2016, I invited all permanently employed full- or part-time Lead and Assistant teachers (66 individuals) to participate in the *Musical Lives Program*. The UTCDC administration estimated that there is a teacher turnover rate of about 10% per school year, so some of these 66 potential participants had not met me and had not heard about the program at the professional development session that was held the previous spring. I introduced myself to these teachers via email and gave a brief description of the program and what participation would entail (Appendix A). I decided to not include temporary employees or floaters in the study, as they could leave their placement during the course of the semester and were not with the same class or age of children consistently. During the *In-Class Sessions* and the *Lunch-and-Learns* (to be discussed later in this chapter), the few temporary employees and teachers who were employed by the school after the *Musical Lives Program* had begun were invited to join and learn if they wished, even though they were not considered participants for the purposes of this project.

Of the 66 invited teachers, 40 began the program and 35 completed the program. Of the five who did not complete the program, two dropped out (one accepted a new position at an elementary charter school, another moved to a different classroom at another center where her new co-teachers did not wish to participate). Three other teachers who participated were excluded from the final analysis: one switched classrooms

in the middle of the semester, and two did not complete their final *Inventory* before the conclusion of the program.

Descriptions of the 35 participant teachers are presented in Table 4. The teachers taught children representing all ages, from Infants/Babies to PreK. More Lead than Assistant teachers participated, and the number of participants from each of the three centers varied. The participant group covered a wide range of years of teaching experience, including novice teachers who had been in the classroom for less than five years to those who had been teaching young children for more than 20 years (Table 3).

Table 3: Descriptions of Participants

Demographic Category		Number of Teachers
Classroom Role	Lead Teachers	21 (63.6% of all centers' Leads)
	Assistant Teachers	14 (42.4 % of all centers' Assistants)
Place of Employment	Center A	12 (44.4% of center)
	Center B	15 (68.2% of center)
	Center C	8 (47.1% of center)
Age of Students	Infants/Babies	2 teachers
	Toddlers	4 teachers
	2-Year-Olds	11 teachers
	3-Year-Olds	6 teachers
	4-Year-Olds/PreK	12 teachers
Years of Experience	0 to 5 years	5 teachers
	6 to 10 years	8 teachers
	11 to 15 years	4 teachers
	16 to 20 years	4 teachers
	21 to 30 years	2 teachers
	no answer	11 teachers

*Note.*  $N = 35$ .

Many co-teaching teams (both the Lead and the Assistant teacher from the same classroom) chose to participate in the study, but this was not universally the case. Of the 35 participants, 24 teachers from 12 classrooms participated along with their classroom-teaching colleague, and 11 teachers were solo participants (either the co-teacher chose not to participate or did not complete the program). In total, teachers from 23 classrooms participated.

## **PROCEDURES**

### **Institutional Approval and Consent**

A proposal for the program was reviewed and approved by the Institutional Review Board of The University of Texas at Austin in the summer of 2016. I discuss the various documents and procedures that were approved by the IRB in the following sections.

Participants were informed that their participation in the study was completely voluntary, and that they could discontinue participation in the study at any time. Those who wished to participate first completed a *Consent to Participate in Research Form* prior to the start of the program. The *Consent to Participate in Research Form* also asked the teachers to specify whether or not they would consent to be videotaped throughout the project (Appendix B).

The children who were enrolled in the centers, although not the primary focus of this study, were likely to be videotaped. As the UTCDC is a part of the University and on-site research is common, the families of the children who are enrolled either give or decline general consent for their children to participate in research when they initially

enroll their children. I submitted this existing consent language to the IRB as a part of the study approval; as a result, rather than obtaining signed consent forms from each family, I sent a letter via email to all enrolled families whose teachers were participating to alert them to the purpose and goals of the study and to notify them that their children, although not the primary focus of the research, would be videotaped (Appendix C). The Site Directors let me know which families had previously declined consent for their child to be recorded, and I planned to either adjust or eliminate filming in those classrooms as needed. All parents whose children were enrolled in the classes that I wished to videotape had given consent, and none requested that I refrain from videotaping their child.

Additionally, as I would have direct contact with children during this portion of the study, I completed a voluntary background check as would any employee or volunteer of the UTCDC prior to the commencement of the *In-Class Sessions*.

## **Design and Implementation of Program**

### ***Program Schedule***

The *Musical Lives Program* ran throughout the fall academic semester of 2016. As I described previously, initial contact was made with the UTCDCs in the spring of 2016, and individual participation was confirmed in the late summer of 2016. Once enrolled in the program, each teacher received a copy of the program schedule. I describe each of the key program events in the following sections of this chapter. The program schedule was as follows:

- Pre 1: August 22-25: Met with each center as needed, *Inventories* and Consent Forms distributed
- Pre 2: August 29-September 2: Parent letter distributed, first round of *Inventories* and Consent Forms collected
- Pre 3: September 5-7: Classroom Rotation Schedule finalized, *Inventories* and Consent Forms collected
- In-Class 1: September 12-15: First *In-Class Sessions*
- In-Class 2: September 19-22: *In-Class Sessions, Lunch-and-Learn #1*
- In-Class 3: September 26-30: *In-Class Sessions*
- In-Class 4: October 3-7: *In-Class Sessions*
- In-Class 5: October 10-14: *Lunch-and-Learn #2*
- In-Class 6: October 17-21: *In-Class Sessions*
- In-Class 7: October 24-28: *In-Class Sessions*
- In-Class 8: October 31-November 4: *In-Class Sessions*
- In-Class 9: November 7-11: *Lunch-and-Learn #3*
- In-Class 10: November 14-18: *In-Class Sessions*
- In-Class 11: November 28-December 2: *In-Class Sessions*
- In-Class 12: December 5-9: Final *In-Class Session, Inventories* and *ILPs* collected
- Post 1: December 12-16: Remaining *Inventories* and *ILPs* collected

The *Musical Lives Program* was based on a traditional student-teaching experience in music teacher preparation programs, experiences where future teachers observe experts teach, co-teach and receive feedback, and finally teach independently. These types of experiences provide deeper learning experiences than those that are typically provided in short-term workshops, certificate programs, or CDA courses. The program and semester calendar was intentionally broad enough to allow each teacher to make choices and decisions based on her own musical background, interests, preferences, comfort level, and rate of progress. *Musical Lives* was designed to be a positive and unique learning experience for teachers who were eager to learn more about making music with children, regardless of whether they had completed an education degree.

### ***Pre-Inventories and Initial Findings***

In order to assess the music activities in each participant's classroom as well as the teachers' attitudes and music experiences, I developed a *Musical Lives Inventory* (Appendix D) to be completed by the teachers in late August/early September of 2016, before the beginning of the *In-Class Sessions*. Several original questions were written for the *Inventory*, and others were taken or adapted from surveys that examined adult music participation (Bowles, 1988) and early childhood classroom music activity (Nardo et al., 2006). The findings from the *Musical Lives Inventory* were used to design and implement the program.

The seven-page *Inventory* gathered demographic information about each teacher's classroom role and years of teaching experience, the availability of music instruments in the classrooms, personal music goals, and the optimal time in the school day for music activities. The *Inventory* was divided into sections based on categories of classroom musical activity: *Singing in the Classroom*, *Instruments in the Classroom*, *Music and Movement in the Classroom*, *Recorded Music Listening in the Classroom*, and *Music Discussion in the Classroom*.

Each of the sections of the *Inventory* asked the participants to specify how frequently they engaged in various types of music activities: either daily, weekly, once a month, hardly ever, or never or not applicable. The participants were also asked to specify their own and the children's favorite songs and music activities for each category and to indicate their perceptions of the children's enjoyment of each type of music activity on a 5-point Likert scale (1 = not at all to 5 = very much) or to indicate n/a: does not apply in my classroom. Lastly, participants indicated their levels of confidence

participating in or leading each type of activity on a 5-point Likert scale (1 = not at all confident to 5 = very confident) with the option to select n/a: does not apply in my classroom. Some of the activities were not be applicable to certain age groups (e.g., Infants/Babies and music discussion).

In the final section of the *Inventory, Personal Music Life*, teachers indicated their past and present music experiences and participation (e.g., school, church, or community participation). They also indicated their overall knowledge of the mechanics of music from 1 (low) to 5 (high) and their confidence in their overall music ability from 1 (not at all confident) to 5 (very confident).

I reviewed each *Inventory* prior to the *In-Class Sessions* portion of the program, and with the addition of information from my classroom observations in the first week, I was prepared to design *Individual Learning Plans*, which I will discuss with more detail in the following section.

*Inventory* responses that pertain to the development and implementation of the program are detailed in the following paragraphs. The data are represented as frequency counts unless otherwise noted, either by number of classrooms or by number of participants. The *Inventories* revealed that the participants were already doing many music activities in their classrooms, but classroom musical experiences and environments varied as seen in curricula, instructional approaches, and materials.

### *Classroom Concerns*

Classrooms were equipped with music materials; un-pitched rhythm instruments were the most available type of instrument (21 out of 23 classrooms). Every participating classroom (23) was equipped with props (e.g., puppets, hoops, or scarves) as well as

equipment to play or stream recorded music. Twenty out of the 23 participating classrooms housed a library of story songbooks or sing-a-long books. When asked, “during what time of the school day would music be most beneficial” for their students, teachers indicated circle time (33 teachers), rest time (11 teachers), or interspersed with other classroom activities (12 teachers). Eight teachers responded that it would be beneficial to have music during a specifically designated music time.

### *Classroom Singing Activity*

Twenty-six of the 35 teachers reported that their children sang independently or with their peers daily. Fewer teachers (23) responded that this daily singing was teacher-led and planned. Twenty-five teachers responded that they sang during classroom routines outside of a designated music time daily, such as during transitions or when giving directions, and 15 teachers responded that they joined in with the children’s spontaneous or child-led singing daily as well. Only 10 teachers reported that they ever sang while playing an instrument.

When they did sing in class, 17 teachers reported that they sang along with recordings daily, and 21 teachers reported that they sang a capella daily. They reported feeling more confident when singing along with a recording or instruments ( $M = 4.06$ ,  $SD = 1.11$ ) than they did when singing a capella ( $M = 3.66$ ,  $SD = 1.19$ ). Additionally, the teachers responded favorably about their children’s enjoyment of singing ( $M = 4.44$ ,  $SD = .76$ ).

### *Classroom Instrument Playing*

Instrument playing was less frequent and more varied than singing activity. Twenty-five teachers responded that they hardly ever or never played music instruments

in class or to accompany their singing. Some classes engaged in teacher-planned group instrument playing, but this activity was inconsistent between classrooms: 10 teachers responded hardly ever, 8 teachers responded once a month, and 12 teachers responded weekly.

Free play with instruments, or opportunities for the children to have free access to a classroom's music center, was reported to be more frequent than planned group musical instrument playing; 22 teachers responded that this occurred daily. Twenty teachers responded that there were daily opportunities for their children to explore making sound with non-traditional instruments or objects in the room. The teachers' perceptions of their students' enjoyment of traditional instrument playing was almost as high as singing ( $M = 4.15$ ,  $SD = 1.03$ ), and the children's enjoyment when playing non-traditional instruments was also perceived to be high ( $M = 4.28$ ,  $SD = 1.11$ ).

The teachers had a higher degree of confidence about their ability to play un-pitched percussion ( $M = 4.0$ ,  $SD = 1.11$ ) than they did about their ability to play pitched instruments ( $M = 2.15$ ,  $SD = 1.31$ ).

### *Classroom Music and Movement*

Music and movement activities were frequent, with 27 teachers responding that they planned music and movement either weekly or daily. The teachers used a recording to support music and movement more frequently than they used live music or their own voices. They were more likely to choose recorded instrumental music (without words) as the accompaniment for movement (33 teachers) than they were to select music with specific movement instructions, such as "The Hokey Pokey" (23 teachers), or popular or children's music with lyrics (15 teachers).

The teachers' perception of the children's enjoyment of music and movement was the highest among all of the classroom music experiences and had the least amount of variability ( $M = 4.76, SD = .50$ ). The teachers felt generally confident about their ability to lead these activities ( $M = 4.13, SD = .99$ ).

#### *Classroom Recorded Music Listening*

Recorded music was played in the classrooms during rest time, snack, lunch, or work time daily in most classrooms (25 teachers, or 18 classrooms). The teachers reported choosing classical music most frequently for classroom background music (28 teachers). The next frequent choices included: children's music (25), rock (9), pop (11), hip hop (7), folk (7), world music (14), jazz (12), electronic (6), and ambient (14), as well as write-in responses that included "Spanish music," "Motown," "meditation music," or "nature sounds." I did not request that the teachers provide specific examples of what these write-in options included.

Seven teachers from six classes responded that their classroom had a dedicated listening area where children could listen to music through headphones. The teachers felt that the children enjoyed listening to recorded music ( $M = 4.58, SD = .75$ ), and the teachers were very confident in their ability to choose appropriate background music for the classroom ( $M = 4.58, SD = .56$ ).

#### *Classroom Music Discussion*

Music discussion in the classrooms was infrequent. The *Inventory* included four questions concerning the frequency of music discussion, and hardly ever was the most common response for each; only in a few instances did teachers report that music discussion occurred daily. Children's music was the genre of music that either sparked or

was used in discussion activities (16 teachers), and the song “Wheels on the Bus” was mentioned twice as the song that most lent itself to discussion.

The teachers did not feel that the children enjoyed music discussion activities as much as they did singing, instrument playing, or moving ( $M = 3.23$ ,  $SD = 1.45$ ), and the teachers’ confidence in their ability to lead discussion activities was also lower than it was for the other music activities ( $M = 3.43$ ,  $SD = 1.38$ ).

### *Personal Music Activity*

The teachers gave similar responses to questions about their personal music activities. Every teacher (35) responded that they listened to music outside of work daily, and the majority (32) responded that they sang outside of work daily as well. Fewer (18) indicated that they attended a live music event once a month; only one teacher indicated that she never attended live music events. Listening, singing, and attending comprised the majority of outside-of-work music activity: 24 teachers never played a music instrument outside of work, 15 never made music with friends, and 21 never created or composed songs of their own.

Thirteen teachers had participated in school or community band or orchestra in the past (from 1 to 10 years); however, none continued as an adult to play the instrument that they had studied in school. One teacher had previously taught herself to play piano without formal lessons, but she did not continue to play either. Nineteen teachers had previously participated in school, religious, or community choirs, and 5 still participated as adults.

As a group, the teachers felt that they had a moderate amount of knowledge in the mechanics of music ( $M = 2.62$ ,  $SD = 1.23$ ), and of current musical events going on in

their area ( $M = 3.18$ ,  $SD = 1.11$ ). As a group, the teachers related moderate confidence in their overall musical ability ( $M = 3.03$ ,  $SD = 1.29$ ).

### *In Summary*

Although the purpose of the initial *Musical Lives Inventory* was to develop an *Individual Learning Plan* for each participant (Appendix E), the results from the *Inventories* gave me some insight into this particular group of teachers. Overall, I found that most teachers were engaging in making music with their children, but the use of instruments and classroom music discussion were not as frequent as group singing and recorded music activities. I surmised that introducing instruments—both for the teachers' use and for the children's—could greatly change the musical environments of the centers.

### *Individual Learning Plans (ILP)*

Through their *Inventories*, teachers indicated preferences for the types of content and classroom music activities they wished to learn about as participants. After reviewing each teacher's preferences and after observing them during the first week of the *In-Class Sessions*, I prepared a draft *Individual Learning Plan* for each participant (Appendix E). This *ILP* draft listed all of the program options, with each teacher's chosen options highlighted. Giving the teachers a chance to see the full list of options was an intentional choice so that they could be fully aware of what options were available to them, even options that they had not chosen initially. I had hoped that doing so would contribute to the feeling that each participant was in charge of his or her program, and also maximize opportunities for individual choices within the program.

The *ILP* drafts were distributed during the first *Lunch-and-Learn* Session—which I will discuss in detail in a later section—and the teachers were given time to consider whether they agreed to their plan or wanted to edit their plan before moving forward. My suspicion was that some teachers would choose to make changes to their *ILP*, as an example either adding ukulele to their plan after having a chance to try it, or adapting their plans after having conversations with their colleagues about shared classroom goals. Four participants chose to add ukulele to their final *ILP* and another teacher chose to add a special request to learn three “Hello Songs.”

Teachers could choose as many areas for their *ILPs* as they liked. In order of most chosen area to least chosen were the following goals: “learn more movement games and activities” (33); “have fun making music in my classroom” (32); “learn to play an instrument” (30); “master songs that I can sing in my classroom” (27); “learn more about musical dramatic play and musical storytelling” (25); “develop my ability to make adaptations for my students with disabilities and other special needs in music activities” (20); “use recorded music in my classroom more effectively” (18); “incorporate more family musical activities” (16); “improve my singing voice” (15), and; “have fun making music with my colleagues” (11). Several of the areas overlap. For example, a teacher could work on a piece of repertoire that satisfied the goals of learning to play an instrument and learning a song to sing in the classroom at the same time.

Once the *ILP* drafts were confirmed with each participant, I created final personal *Individual Learning Plans* that would allow each teacher to keep track weekly of their progress in each area, either by checking off a goal that they felt that they had mastered or by designating with an arrow a goal that they were still working on (Appendix F).

The *ILPs* gave the teachers a record of their own learning, and also gave me a sense of their perceptions compared to my own. For each participant, I made a duplicate *ILP* and recorded my perceptions of each teacher's progress. My version of the *ILP* also included notes about the teacher's general classroom teaching, as I was interested to see if building music teaching skills would transfer to overall improvements in teaching. I included the following skills: behavior management—*guides appropriate physical arrangement of the children, or resolves student disputes/personal issues*; feedback—*uses individual student names, asks questions when appropriate, gives positive verbal/non-verbal feedback, or gives negative verbal/non-verbal feedback*; lesson implementation—*paces lesson appropriately, transitions effectively, uses prompts when appropriate, or manages turn taking*; and adaptation—*adapts for students with special or other needs, includes all children in the activity, uses universal design effectively, or responds and adapts “on the fly” when needed*.

I encouraged and reminded the teachers to complete their *ILPs* every week, and I made an effort to do the same at the end of every program day. I gathered the participants' *ILPs* mid-way through the semester, gave them a fresh copy at that point, and then gathered them again at the end of the semester. My concern was that leaving them in the hands of the teachers entirely to the end of the program would result in many forgetting to complete them and then retroactively trying complete them at the end of the program.

### ***In-Class Sessions***

The *In-Class Sessions* constituted the main part of the *Musical Lives Program* and included many unique learning opportunities that would otherwise be unavailable to

teachers. In these sessions, teachers worked with children in realistic situations (their own classrooms) and benefited from my regular feedback.

The daily schedule of *In-Class Sessions* was organized in collaboration with the three centers' Site Directors and the teachers. The schedule involved several important considerations: having an appropriate amount of time to spend in each classroom; not disrupting important class routines such as rest time, lunch, or outdoor play; and allocating adequate time for me to travel between classrooms and set up video equipment and arrange teaching materials. After several drafts, we created a trial schedule that allowed 15 minutes in each class of younger children (Infants/Babies, Toddlers, and 2-year-olds classes), and 20 minutes in each class of 3-year-olds and PreK; at least 5 minutes were allotted for transition between classes and set-up. After the trial schedule was revised again to accommodate teacher break schedules, it remained intact with rare unexpected schedule conflicts. The goal was to hold as many sessions as possible for each participant; when unforeseen conflicts arose, I rearranged the day's schedule whenever possible.

During the first week of the *In-Class Sessions*, teachers independently demonstrated a music activity with the children, and I assessed several aspects of the lesson (e.g., teacher's language, repertoire and implementation, children's responses, use of the classroom space). Beginning in the second week, I taught planned age-appropriate music sessions in each class, incorporating each teacher's *ILP* goals. Over the semester, the teachers led sections of the lessons themselves, and I continued to introduce appropriate curricula as needed. By the end of the semester, the teachers led the entire

music lesson with some using the *Musical Lives* classroom repertoire exclusively, and others combining the new repertoire with familiar activities they had used previously.

### ***Classroom Curriculum***

The curriculum that I shared with teachers was accessible and age-appropriate for early childhood classrooms, but was also flexible for use across multiple age groups and for many purposes. It comprised international folk music, popular music, and public domain early childhood classroom favorites, and was organized into categories to encourage the teachers to include a variety of music experiences in each music session. Teachers chose from categories such as ukulele songs, sing-a-long songs, songs for the children to play instruments with, movement songs, and books with singing. Also, teachers were encouraged to use or adapt the classroom curriculum as they saw fit, to continue teaching familiar, successful music activities they taught previously, and to apply new teaching techniques to activities of their own design.

Among the several new activities and songs in the curriculum was the opportunity to learn to play an accompanying instrument to enhance teachers' chosen musical activities and support their singing and that of their colleagues and students. Ukulele seemed to be the most appropriate choice. Classroom ukuleles have the advantage of being more affordable than pianos or guitars and also have the advantage of being portable and durable enough to allow the teachers to maintain contact with their children as they are leading activities. Beyond cost, I also knew from personal experience that the mastery of ukulele chord-based playing would be faster and easier than piano or guitar playing. With a small selection of chords and simple chord combinations, such as I, IV, V in easy-to-play keys, teachers could accompany most of the repertoire appropriate for the

early childhood classroom, and all of the pieces of the *Musical Lives* classroom curriculum.

I taught the classroom curriculum primarily by rote and for those playing ukulele, I taught them to read chord tablature from pictures of chord diagrams, lead sheets, and one-to-one instruction when needed. I did not assume that many of the teachers would be able to read traditional sheet music, nor did I want to make that a prerequisite; the goal was to make learning the material as accessible, inclusive, and expedient as possible. The majority of the curriculum was introduced to the teachers as they observed me teach in their classrooms, and in the *Lunch-and-Learn* sessions. Teachers were given handouts with lyrics, or handouts with lyrics and ukulele chords for those who were learning ukulele.

In addition to my direct instruction introducing the curricular activities, teachers could also access a simple website that I designed to provide them with familiar and new resources. I designed the website (<http://musicallives-utc dc.blogspot.com/>) using *Blogger*, a free blog writing/website creation platform. Through this site, teachers could access the curriculum quickly and easily, find lyrics or ukulele chords, or stream a recording of me singing the material. I made simple recordings of each piece of music from the program, which I stored as mp3 files in a *Google Drive* folder. The *Musical Lives* website included direct web links to these recordings in *Google Drive* so that the teachers could access them easily through a link; they could immediately hear the recording of their choice over a computer, tablet, or smart phone. These recordings were intentionally unpolished; I did not want the teachers to play the recordings of me in their

classrooms as a substitute for their own music-making, but rather wanted them to be used as a tool to encourage and support their own singing and playing.

None of the technology that I employed in creating the *Musical Lives* website was expensive or sophisticated, nor did it include anything that could not be manipulated or duplicated by a technological novice; this was all by intent. The online platforms and software that I used were free (e.g., *Google Drive*, *Blogger*, the recording app on my phone). My goal was to create realistic, accessible tools and materials that could be duplicated easily by any school or day care center with a limited budget.

I distributed song and activity material over the course of the semester and also added materials to the website throughout the program; teachers learning ukulele received packets with new chord combinations and accompanying songs as they learned them at their own pace.

### ***Lunch-and-Learn Sessions***

*Lunch-and-Learn* sessions were regularly scheduled school-sponsored professional development sessions at each of the centers. Teachers were proportionately compensated with extra vacation time for participating in lunchtime professional development sessions, and the centers graciously agreed to give me three one-hour *Lunch-and-Learn* spots in support of the *Musical Lives Program*; I met with the teachers at each center, in weeks 2, 5, and 9 of the program.

At the first *Lunch-and-Learn*, my agenda was to introduce teachers to what they could expect in the program, to go over the draft *ILPs*, and to introduce the teachers to the ukulele and to several music activities that they could use immediately in their classrooms. At the second *Lunch-and-Learn*, I introduced more curricula and ukulele

chords, and began to discuss more advanced teaching strategies. At this point in the semester (week 5), teachers were beginning to co-teach music with me; however, teaching times varied depending on readiness and experience. At the last *Lunch-and-Learn*, I prepared teachers for independent music teaching in anticipation of their using their new skills and knowledge after the program ended (Appendix G).

The *Lunch-and-Learn* sessions allowed more time for discussion and questions than was possible during the *In-Class Sessions*. Also, in these sessions, without the responsibilities for children, teachers learned new material in a supportive peer-learning environment, asked questions, collaborated, and had fun with their colleagues.

In the weeks when a *Lunch-and-Learn* session was not held, I hosted informal *Jam Sessions*. The jam sessions were not required, but were scheduled times (office hours) when I was available at a designated location for teachers to come and ask questions, get extra support, practice making music, and play music with me for fun.

### ***Videotaping***

*In-Class Sessions* and *Lunch-and-Learn* sessions were videotaped throughout the course of the semester. The purpose of videotaping was to document the teachers' progress, their use of the curriculum, and my own behavior as a teacher and coach; observational data were used to answer several research questions about the program.

As stated earlier, the UTCDC families were informed that videotaping of their children would occur in the *Musical Lives Program*, and none chose to opt out. Nine of the 35 teachers chose not to be videotaped. From the remaining teachers, I was able to videotape 18 out of the total 24 classrooms.

I adjusted camera positions and angles as needed during the sessions. In some instances, teachers positioned themselves in new and unexpected places in the room during the lesson, or they adapted the classroom spaces throughout the semester, or they—sometimes as a result of my direction—began using another space in the room for music time.

### ***Post-Inventories***

During the last weeks of the program, I distributed a post-*Musical Lives Inventory* to each participant to assess any changes in their classroom music activity, the teacher's personal music activities, the children's experience, and the teacher's confidence in their musical abilities. This post-*Inventory* included most of the same questions as the pre-*Inventory*. Additionally, teachers were asked to describe how their music leading had changed or developed over the course of the semester and how they planned to incorporate music into their classroom after the program was concluded (Appendix H).

I personally collected many of the completed *Inventories* during the last week of the program, and returned the following week to collect those remaining. Only the *Inventories* that were completed and returned to me by the week following the conclusion of the program were included in my evaluation of the program.

### ***Program Follow-Up and Selected Interviews***

The *Musical Lives Program* was completed at the end of the fall 2016 academic semester. One consideration when designing the program was how to best develop systems or contingencies that would encourage continued independent growth and peer support after the conclusion of the program.

In January of 2017, I sent an email to the participants to remind them that the *Musical Lives* website would continue to operate indefinitely, should they want to hear a recording again or want to retrieve information that they had forgotten or lost, and that I was available should they need my help. I also proposed to the teachers an opportunity to create a follow-up video project as a way to catalog their work and to share their accomplishments and the accomplishments of the children with families. This videotaping would take place in late February or early March, and their participation would be completely voluntary.

Additionally, I contacted several teachers during the following semester (Spring 2017) for personal interviews. Those interviewed included representatives from each of the three centers, individuals from across the range of age groups, and those with varying degrees of success in the program. The purpose of the interviews was to gain additional insight into the aspects of the program beyond what the videotapes, the *Inventories*, and my perceptions could provide.

## **Chapter Four: Teacher Experiences**

### **INTRODUCTION**

*Musical Lives* was unique in that it offered individual participants opportunities to select meaningful options for their own learning, based on the assumption that the teachers would begin with different musical backgrounds and skill levels. My goal was neither to homogenize teachers in terms of their musical skills or preferences nor to raise them to a predefined level of mastery. Instead, the goal was for everyone who participated to improve, irrespective of his or her initial levels of skill. I considered at the outset that not all teachers would flourish in *Musical Lives*, and that the experiences of those who were not as successful would be important to document and understand.

The data gathered and the conclusions that I draw from them are limited to the experiences of the 35 teacher participants and are not necessarily representative of all early childhood teachers or all centers. I hope that the experiences of the teachers who participated in *Musical Lives* will be enlightening to others who may wish to design professional development programs for early childhood teachers and young children.

### **PARTICIPANT SUB-GROUPS**

There were 35 Lead or Assistant teachers who completed every phase of the program. I categorized these 35 into three participant sub-groups: highly successful (HS), moderately successful (MS), and less successful (LS). I did not assign the HS, MS, or LS labels as a result of any of the demographic information that was made available to me at the beginning of the study. Rather, I assigned these designations at the conclusion of the

program as a result of observable outcomes and my personal impressions of each teacher's degree of success and musical independence.

After considering what each participant was able to achieve during the semester, I labeled 6 teachers LS, 21 MS, and 8 HS. Through these sub-groups, I explore the variety of *Musical Lives* outcomes and address the characteristics members of these groups shared in common.

### **Highly Successful Teachers (HS)**

The eight teachers that I categorized as HS were those who displayed the potential to continue to lead music effectively after the conclusion of the program. These teachers sang in tune and with expression, played instruments accurately and confidently, structured age appropriate lessons, practiced and prepared between sessions, responded to their children, included everyone, and needed little or no feedback from me by the last weeks of the program. HS teachers were characterized by strong commitment to the program, consistent musical skill, and high levels of achievement by the end of the semester.

### **Moderately Successful Teachers (MS)**

I labeled the majority of teachers MS. MS teachers completed the program requirements, happily led music activities in their classes and welcomed my feedback, and seemed to enjoy participating. However, they did not improve as much as their more successful colleagues did in terms of number of new skills achieved or in their ability to consistently facilitate high quality music-making. Examples of typical MS behavior were inconsistent musicianship (e.g., occasionally singing out of tune, playing incorrect

chords), or requiring the aid of printed lyrics to lead songs. MS teachers were characterized by commitment to the program, but moderate degrees of musical skill and achievement.

### **Less Successful Teachers (LS)**

The six LS teachers showed little evidence of adapting their behavior when learning music. Although they seemed to have enjoyed our time together, and perhaps enjoyed watching me as I taught their children, when it came time to lead music themselves they often did not do so or did not lead in a stimulating or aesthetically pleasing way. For example, one LS teacher told me that he did not prepare anything for a given day and asked that I lead something myself; this occurred more frequently with the LS teachers than it did with their more successful colleagues. LS teachers often allowed their co-teachers to lead alone and did not contribute to the lesson. When LS teachers did lead a familiar song or activity, they often sang out of tune or did not know the words of the song or failed to engage the children. Generally, LS teachers were characterized by either a lack of engagement in the *In-Class Sessions* or by less ability to facilitate music with the children.

### **INDIVIDUAL PARTICIPANT CASES**

I also selected three teachers to profile in more detail. The different learning experiences and perceptions of April, May, and June—not their real names—highlight the personalized nature of this work.

### **April (HS)**

April was a PreK Lead teacher at Center C. She did not provide any information about her years of experience in the classroom on her initial *Inventory*; however, she did mention to me in conversation that she had been at the Center for many years. April's co-teacher was also taking part in the *Musical Lives Program*, but it became clear to me early on that April had more confidence leading the class than her Assistant teacher did. April led most activities while her Assistant would quietly accompany songs or manage behavior.

April took her instrument home and practiced and planned her lessons in advance of our weekly *In-Class Sessions*. She had an excellent feeling for what would and would not work with her class, managed transitions and presented activities seamlessly, and made personal connections with the children throughout. She also happened to sing quite well, in tune and with expression, and learned to use the ukulele with fluency and confidence. By the end of the program, I was using words such as "exquisite" to describe her music time, and if I were in the position to hire her, I would.

### **May (MS)**

May was the Lead teacher in an Infants/Babies class at Center A. May had been teaching for eight years. She was warm and welcoming with the very young children in the nursery classroom, and had excellent instincts for what best supported the children in her care. May fully participated in our *In-Class Sessions* and *Lunch-and-Learn* workshops. She sang in tune with expression, and made great efforts to connect with the children in class by making eye contact and directing her singing and speech to the

children and by interacting with even the youngest infants who did not always interact in return.

However, May did not progress much beyond the mastery of two ukulele chords and learned only a few of the songs and activities from the program. Due to the nature of working with Infants/Babies, some of our class visits were cut short when a child need would arise, or when a parent would arrive to speak with May about his child. As a result, there were many times when I carried on with music time alone, while May left to attend to something else. Perhaps May would have gotten more out of the program had we had more time to work together. As it was, she enjoyed the program, and acquired some new skills and activities that she could use.

### **June (LS)**

June was the Assistant teacher in a 2-Year-Olds class at Center C. June did not provide information about the years that she had been teaching, but my feeling was that she was not a novice. She handled classroom management concerns well, was clearly capable and comfortable around children, and maintained a safe environment in her classroom. Early on, I surmised that her high energy and apparent enthusiasm would help her develop in the program.

Over the course of the semester, however, June was often absent from our *In-Class Sessions*, and she missed two out of the three *Lunch-and-Learns*. On the few occasions when I did see her lead a music activity with her children, she repeated activities that she had known and been using before *Musical Lives*, and did not appear to integrate my feedback into what she was doing. Despite her high energy, June's personal musical skills were inconsistent at the beginning of the program, and they did not develop

over the course of the semester. She could not consistently sing in tune or with clarity or expression.

### **MUSICAL ENVIRONMENT OF THE CENTERS**

My first research question was: What is the overall effect of a music-focused residency on the music environments of participating day care centers? In order to answer this question, I gathered data from the pre- and post-*Inventories* to see if there were any connections between frequency of classroom music activity and teacher outcomes. Reported increases or decreases in classroom music activity do not indicate the quality of these experiences; I discuss aesthetic aspects of the music in a later section.

Within each broad category of music experience (e.g., singing, instrument playing, recorded music listening), the *Inventories* included several specific questions. For singing, there were six teacher-led frequency questions; for instrument playing, six questions; for music and movement, four questions; for recorded music listening, two questions; and for music discussion, three questions. For each of these questions, teachers specified whether the activity occurred daily, weekly, once a month, hardly ever, or never or n/a in my classroom. In this section, I discuss each area broadly and then more specifically within each question, including comparisons of the participant sub-groups.

#### **Singing Activity**

Within the *Singing in the Classroom* section, teachers were asked to specify the frequency with which they: *lead planned group singing; lead or engage in spontaneous, or child-led singing (allowing the child to improvise or begin a song and then developing the experience); sing without accompaniment; sing while playing an instrument (guitar,*

*ukulele, etc.); sing along with recordings; and sing directions, transitions, or use singing in other types of classroom activities that are not specifically defined as time for music.*

In their initial *Inventories*, teachers reported that they led planned group singing daily, engaged in child-led singing weekly or daily, sang without accompaniment daily, sang while playing an instrument hardly ever or never, sang with recordings weekly or daily, and sang outside of music time daily (Table 4).

Table 4: Initial *Inventory* Responses for Singing Activities

Type of Singing	Reported Frequency					
	No Answer	Never or n/a	Hardly Ever	Once a Month	Weekly	Daily
Planned group	3	-	4	2	3	23
Spontaneous or child-led	3	-	5	-	12	15
Without accompaniment	4	5	2	-	3	21
With instrument(s)	5	20	8	-	1	1
With recording	1	2	3	-	12	17
Incidental contexts	1	-	2	1	6	25

*Note.*  $N = 35$ .

Although there were differences among teachers' responses within each group (HS, MS, LS), there were no discernible between-group differences for any of the six singing questions before the program began.

Participants' indicated in the post-*Inventories* that singing activity in most areas either remained the same or increased in frequency since the beginning of the semester. At the end of the program, most teachers reported that they led planned group singing

weekly or daily, engaged in child-led singing daily, sang without accompaniment daily, sang while playing an instrument weekly or daily, sang with recordings weekly or daily, and sang outside of music time daily (Table 5). Engaging in child-led singing, singing a capella, singing with recordings, and singing outside of music time increased only slightly. Leading group singing decreased in frequency, most notably in the LS group.

Table 5: Final *Inventory* Responses for Singing Activities

Type of Singing	Reported Frequency					
	No Answer	Never or n/a	Hardly Ever	Once a Month	Weekly	Daily
Planned group	3	3	1	3	10	15
Spontaneous or child-led	2	-	2	4	6	21
Without accompaniment	2	-	1	3	4	25
With instrument(s)	2	-	1	7	15	10
With recording	1	-	-	4	7	23
Incidental contexts	2	-	-	-	3	30

*Note.*  $N = 35$ .

The most notable increase in singing activity was for singing while playing an instrument. Before participating in the program, none of the LS reported singing while playing an instrument in their classes, nor did the majority of teachers in the MS and HS groups. By the end of the program, teachers in all three groups reported more frequent singing while playing an instrument, with 27 teachers, including 4 teachers from the LS group, reporting that they sang while playing an instrument daily.

Not all teachers within each sub-group reported similar changes in singing frequency, of course, and this was especially true in the LS group. As the program progressed, differences between the three groups became more pronounced, as HS and MS teachers reported increases in a variety of singing behaviors and teachers within the LS group reported decreases. Specifically, LS decreases were seen in the frequency with which they were leading planned group singing and singing along with recordings. It could be that teachers decreased some of their previous singing activities (such as singing with recordings) in order to incorporate new activities that they had learned in *Musical Lives* (such as singing with instruments).

### **Instrument Playing Activity**

The area of the *Inventory* regarding *Instruments in the Classroom* included six specific frequency questions for the teachers to answer: *I play instruments in class; I plan music experiences for the children that include music instruments; I use a music instrument to accompany myself when I sing for the children; the children play instruments as a group to accompany their singing or other activities; The children have opportunities to explore the sounds of music instruments and engage in free play with instruments, alone or with other children; and the children have opportunities to play and/or to explore non-traditional musical instruments (kitchen utensils, items in the room, etc.).*

In their initial *Inventories*, teachers reported that they played instruments in class never or hardly ever, planned group instrument playing activities hardly ever, once a month, or weekly and accompanied their own singing with instruments hardly ever or never. The children used instruments to accompany their singing hardly ever, but they

had opportunities to free play with instruments daily, and to make sound with non-traditional instruments daily (Table 6).

Table 6: Initial *Inventory* Responses for Instrument Playing Activities

Type of Instrument Playing	Reported Frequency					
	No Answer	Never or n/a	Hardly Ever	Once a Month	Weekly	Daily
Play in class	3	11	14	1	5	1
Planned inst. playing	3	2	10	8	12	-
Accompany my singing	3	11	14	2	4	1
Children accompany	3	2	10	7	6	7
Free play	2	-	7	1	3	22
Non-traditional	2	3	8	-	2	20

*Note.*  $N = 35$ .

There were small differences between the sub-groups' responses before the program. The HS teachers were playing instruments in class, planning instrument activities, and accompanying their own singing with instruments more than the MS teachers; the LS teachers were engaging in these activities least of all. There was also variation among teachers within each group.

Participants' indicated in the post-*Inventories* that the frequency of instrument playing activity in most areas had increased by the end of the program. At this point, most teachers reported that they played instruments in class weekly or daily, planned group instrument playing activities weekly, and accompanied their own singing with instruments weekly. The children used instruments to accompany their singing weekly,

and were still having opportunities to free play with instruments daily and to make sound with non-traditional instruments daily (Table 7).

Table 7: Final *Inventory* Responses for Instrument Playing Activities

Type of Instrument Playing	Reported Frequency					
	No Answer	Never or n/a	Hardly Ever	Once a Month	Weekly	Daily
Play in class	1	-	1	2	19	12
Planned inst. playing	2	-	1	8	17	7
Accompany my singing	1	-	2	7	15	10
Children accompany	1	-	-	6	19	9
Free play	1	-	2	2	7	23
Non-traditional	1	-	2	6	3	23

*Note.*  $N = 35$ .

Frequency increases were seen within all three of the sub-groups for each of the six instrument questions, with one exception: four out of the six members of the LS teachers reported a decrease in the frequency that their children were playing with non-traditional instruments.

Regardless of the increases within the groups, the LS group still reported the lowest frequencies for playing instruments, planned instrument activities, singing with instruments, and implementing traditional or non-traditional instrument play for their children in the post-*Inventories*. The only exception to this was that they reported the highest frequencies of free play with instruments of the three groups at the end of the program.

## Music and Movement Activity

In the section of the *Inventory* devoted to *Music and Movement*, the teachers were asked to specify the frequency of four classroom music and movement questions: *I lead planned music and movement activities*; *I engage/join in the children's independent music activities of their own design*; *I use recorded music to accompany movement activities*; and *I use live music (voice/instruments, etc.) to accompany movement activities (I perform or ask another adult to provide accompanying music for the children's music activity)*.

Before the program, teachers reported that they planned music and movement in class weekly or daily, joined in with the children's music and movement activities weekly or daily, and accompanied movement with recordings weekly or daily. The responses for accompanying movement with live music (e.g., instruments or voice) were more varied; 14 teachers reported this behavior as never or hardly ever, but 11 reported that they did so daily (Table 8).

Table 8: Initial *Inventory* Responses for Music and Movement Activity

Type of Music and Movement	Reported Frequency					
	No Answer	Never or n/a	Hardly Ever	Once a Month	Weekly	Daily
Planned movement	3	1	3	1	16	11
Join in with child-led	3	2	1	5	13	11
With recordings	3	2	1	-	11	18
With live music	6	6	8	2	2	11

*Note.*  $N = 35$ .

There were few discernible differences between the sub-groups' music and movement responses before the program. The exception was that the LS group reported that they accompanied music with recordings or live music slightly more frequently than did the other groups.

Participants' indicated in the post-*Inventories* that the frequency of music and movement activity had either stayed the same or had increased. At this point, most teachers responded that they planned music and movement in class weekly or daily, joined in with the children's music and movement activities weekly or daily, accompanied movement with recordings weekly or daily, and now accompanied movement with live music weekly or daily (Table 9).

Table 9: Final *Inventory* Responses for Music and Movement Activity

Type of Music and Movement	Reported Frequency					
	No Answer	Never or n/a	Hardly Ever	Once a Month	Weekly	Daily
Planned movement	1	-	-	1	20	13
Join in with child-led	2	-	-	5	12	16
With recordings	2	-	2	1	13	17
With live music	1	-	1	3	14	16

*Note.*  $N = 35$ .

Final *Inventory* frequencies again varied within each of the HS, MS, and LS groups, but there were no discernible between-group differences at the end of the program.

## Recorded Music Listening Activity

In the section of the *Inventory* devoted to *Recorded Music Listening*, the teachers were asked to specify the frequency that: *I play recorded music in my classroom as part of planned music listening activities during circle time, or other designated music time, and I play recorded music in my classroom as part of other non-music-making types of activities (background music, during snack time, rest time, work time, etc.)*.

In their initial *Inventories*, most teachers reported that they used both planned and background recorded music daily. Further, there were no notable differences between the HS, MS, and LS groups before *Musical Lives* (Table 10).

Table 10: Initial *Inventory* Responses for Recorded Music Listening

Type of Recorded Music Listening	Reported Frequency					
	No Answer	Never or n/a	Hardly Ever	Once a Month	Weekly	Daily
Planned music listening	2	-	2	2	7	22
Background music	4	2	-	-	4	25

*Note.*  $N = 35$ .

In the final *Inventories*, most teachers responded that they planned recorded music activities weekly or daily, and used recorded background music in class daily (Table 11). Recorded music at music time may have been replaced with other types of music experiences, such as singing, or instrument playing. At the end of the program, there were still no discernible differences between the responses of the three sub-groups.

Table 11: Final *Inventory* Responses for Recorded Music Listening

Type of Recorded Music Listening	Reported Frequency					
	No Answer	Never or n/a	Hardly Ever	Once a Month	Weekly	Daily
Planned music listening	3	-	1	3	13	15
Background music	1	-	-	2	5	27

*Note.*  $N = 35$ .

### Music Discussion Activity

In the section of the *Inventory* regarding *Music Discussion in the Classroom*, the teachers were asked to specify the frequency of three teacher-led classroom music discussion related questions: *I lead or engage students in discussions about music that they have just heard, or that they prefer; I give students choices of words that they can use to describe music that I will play recordings of, or that I will perform for them; and I join in, or engage with, my students' independent music discussions.*

Most teachers reported before the program that they “hardly ever” led music discussions, supported their children’s discussions by giving them choices of words, or joined in child-led music discussions (Table 12). There were no differences between the HS, MS, and LS groups before *Musical Lives*, although there were differences within each group.

Table 12: Initial *Inventory* Music Discussion Activity

Type of Music Discussion	Reported Frequency					
	No Answer	Never or n/a	Hardly Ever	Once a Month	Weekly	Daily
Teacher-led	2	7	10	5	9	2
Choices of words	2	6	15	4	6	2
Join child-led	4	9	13	1	4	4

*Note.*  $N = 35$ .

At the end of the program, most teachers responded that they now led music discussions weekly or daily, and joined in with child-led music discussions weekly or daily. There were still a variety of answers for how frequently they supported the children’s music discussions by offering them choices of words for describing music; 10 hardly ever did so, but 11 did daily (Table 13). Notably, for all of the three discussion questions, far more teachers indicated a frequency greater than never or hardly ever at the end than had at the beginning, and there were fewer teachers who left these questions blank in the post-*Inventories*. This may indicate that teachers were recognizing music discussions in a way that they were not before participating in *Musical Lives*. As at the beginning of the program, there were no differences between the HS, MS, and LS group responses.

Table 13: Final *Inventory* Music Discussion Activity

Type of Music Discussion	Reported Frequency					
	No Answer	Never or n/a	Hardly Ever	Once a Month	Weekly	Daily
Teacher-led	1	1	6	7	11	9
Choices of words	1	1	10	5	7	11
Join child-led	1	3	2	6	9	14

*Note.*  $N = 35$ .

### Music Quality

The frequency data that I have discussed up to this point give a partial view of the musical environments of these day care centers. Perhaps much more important than the amount of music is the quality of these musical interactions. Were the children not only having many opportunities to make music, but were they also hearing and interacting with *good* music (in-tune expressive singing, and accurate instrument playing).

In this section, I discuss the musicianship of several participants, using the *Early Childhood Teacher Musicianship Measure* (ECTMM), which I developed for this study (Appendix I). The ECTMM assesses teacher musicianship irrespective of the level of difficulty of the repertoire being performed. As this measure was created for *Musical Lives*, one section measures singing musicianship and another ukulele musicianship. The ECTMM is based on and incorporates elements of Duke's (2013) *Songleading Performance Checklist* (Duke, 2013, p. 73).

In each section of the ECTMM, the observer is asked to assess specific aspects of a participant's musicianship while he sings and/or plays a piece of music, on a scale of 1 to 5: 1 = none of the time, 2 = some of the time, 3 = half of the time, 4 = most of the time,

5 = all of the time, and n/a for not applicable or not apparent. The musicianship indicators for singing are: *sang accurately (current notes, rhythms)*, *sang in tune/maintains tonal center*, *sang in correct/matching key to instrument*, *sang with expression (used dynamics, phrases, articulation as appropriate)*, and *knew words to song*. For ukulele playing, the indicators are: *played correct chords for song*, *all strings vibrated with clear tone*, *changed chords without pause*, *maintained steady pulse in right/strumming hand*, *played while looking up from hands*, *looked at the children during song*, *introduction in same tempo as song, if applicable*, and *played loudly enough to be heard throughout*. The scores 1 through 5 for the above indicators are then averaged together to produce a mean singing score and a mean ukulele playing score.

Participants were assessed through excerpts from their *In-Class Session* videos. I recorded 12 weeks of *In-Class Sessions*, and there were 26 teachers who gave consent to be videoed. Selected clips where a participant led a *Musical Lives* activity with no assistance from me were analyzed using the ECTMM. Some videos were eliminated from the analysis, either because the teacher's behavior was unclear in the video or the video was compromised in some way (e.g., the recording stopped prematurely, a child pressed a button that he shouldn't have, the teacher did not include any *Musical Lives* repertoire in their lesson plan, the clip did not include singing or ukulele playing).

The analyzed clips came from April, May, and four additional teachers for whom I had a minimum of two viable video clips. I had hoped to be able to include June as well; however, there were no clips for her that met the above criteria. If a participant led more than one activity independently in a given week, he or she was given multiple musicianship scores for that week. There were so few viable clips for the first weeks of

the program that I decided to not include them; Table 15 below includes clips from program weeks 10 through 12.

I observed and rated teachers' musicianship (singing and ukulele playing) in all 40 video clips. From the 40 total clips, I randomly selected 20 clips (50%) for reliability. Two doctoral students in Music in Human Learning served as independent observers; each was assigned 10 video clips that were randomly selected with the restriction that every teacher would be observed at least once and not more than twice by one of the observers. Percentage of agreement for mean scores for each of the teachers was calculated using the formula  $(\text{agreements}/(\text{agreements} + \text{disagreements})) \times 100$ . I considered agreement as no more than a .5-point difference between my score and the independent observer's score.

Reliability was high between my mean scores and those of each of the independent observers (independent observer #1 = 83.3%; independent observer #2 = 84.2%) and when observers' percentages were combined overall reliability was 83.7%. The high reliability between my scores and those of the observers suggests that the three of us had similar perceptions of what we considered to be "musicianship" for these teachers (Table 14).

Table 14: Participant Musicianship Scores for Singing (S) and Ukulele (U) using *Early Childhood Teacher Musicianship Measure* by Program Week

Participant #	Program Week		
	10	11	12
1	S <sub>1</sub> 4.2; U <sub>1</sub> n/a S <sub>2</sub> 4; U <sub>2</sub> 4.33		S <sub>1</sub> 4.33; U <sub>1</sub> 4.83 S <sub>2</sub> 4; U <sub>2</sub> 3.5
9			S <sub>1</sub> 2.5; U <sub>1</sub> 3.15 S <sub>2</sub> 3.4; U <sub>2</sub> n/a
15	S <sub>1</sub> 3; U <sub>1</sub> 3.88 S <sub>2</sub> 3.67; U <sub>2</sub> 4.75		S <sub>1</sub> 3.17; U <sub>1</sub> 5 S <sub>2</sub> 2; U <sub>2</sub> 4.88 S <sub>3</sub> 3.5; U <sub>3</sub> 4.88 S <sub>4</sub> 3.67; U <sub>4</sub> 4.33
16	S <sub>1</sub> 4; U <sub>1</sub> 3.56 S <sub>2</sub> 3.5; U <sub>2</sub> 4.71 S <sub>3</sub> 3.83; U <sub>3</sub> 2.88	S <sub>1</sub> 4.33; U <sub>1</sub> 4.17 S <sub>2</sub> 4.33; U <sub>2</sub> 3.71	S <sub>1</sub> 4.33; U <sub>1</sub> 3.57
29	S <sub>1</sub> 3.67; U <sub>1</sub> 4.5 S <sub>2</sub> 4.33; U <sub>2</sub> 5 S <sub>3</sub> 4.33; U <sub>3</sub> 5	S <sub>1</sub> 4.8; U <sub>1</sub> 5 S <sub>2</sub> 4.67; U <sub>2</sub> 5 S <sub>3</sub> 4.33; U <sub>3</sub> 4.78	S <sub>1</sub> 4.6; U <sub>1</sub> 5 S <sub>2</sub> 5; U <sub>2</sub> 5
38	S <sub>1</sub> 4.4; U <sub>1</sub> n/a S <sub>2</sub> 4.83; U <sub>2</sub> n/a S <sub>3</sub> 4.33; U <sub>3</sub> 3.63	S <sub>1</sub> 4.4; U <sub>1</sub> n/a S <sub>2</sub> 4.8 ; U <sub>2</sub> n/a	S <sub>1</sub> 4.8 ; U <sub>1</sub> n/a S <sub>2</sub> 5; U <sub>2</sub> n/a S <sub>3</sub> 4.83; U <sub>3</sub> n/a

*Note.* Subscripts indicate clips 1, 2, etc. Approximate length per clip = 1 minute. N = 40 clips.

## TEACHER LEARNING

My next research question was: What music skills do teachers master easily”, and: What is the timeline for skill acquisition, and what differences, if any, can be observed in learning for those who were more or less successful than others? In this section, I discuss the results of the teacher learning measurements as well as the participants’ attendance and participation in the program.

### Attendance

I tracked attendance for the various *Musical Lives* activities over the course of the semester, including the weekly *In-Class Sessions*, the three *Lunch-and-Learns* and the non-required lunchtime weekly *Jam Sessions*, which functioned as my office hours. The

HS teachers attended the most events on average, the MS group of teachers attended slightly fewer, and the LS teachers slightly fewer than that, HS  $M = 14.6$  events, MS  $M = 13.8$  events, LS  $M = 12.5$  events. Low attendance was not isolated to the LS group; 5 MS teachers attended 12 or fewer events themselves (Figure 6).

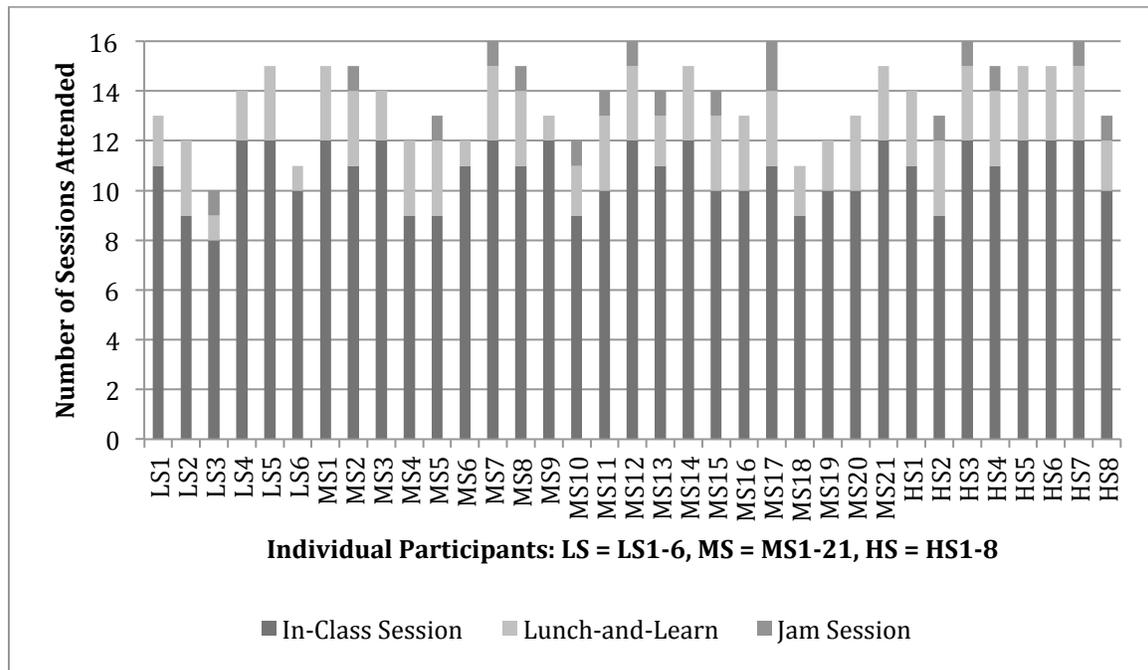


Figure 6. Participant Attendance.  $N = 35$ .

### Use of the *Musical Lives* Website

I tracked visits to the *Musical Lives* website, which was a built-in feature of the blogging platform. The blog tracked how many visits there had been to the site overall, and also which pages within the site were most frequently visited; however, it does not show which participants visited the site or how many unique visitors there were. Also, as this was a publicly available website, there is a chance that outsiders with no relationship to this study may have visited the site as well (Figure 7).

The most frequently visited page was *Hello and Goodbye Songs* with 94 (as of October 30, 2017) views since the site launched. The page *Ukulele Songs with the C, F, and G* chords was the second most visited with 83 visits. Number of page views for other pages were *Movement Songs and Games* (71), *Ukulele Songs with C and F* (71) *Ukulele Songs with C* (60), *Instrument Songs* (44), *Ukulele Songs with C, F, and Dm* (35), *Ukulele Tools*, which includes information about tuning (34), *Ukulele Songs with C, F, G, and Am* (33), and the program *Schedule* (33). Other pages for which the blogging platform did not record number of visits were *Ukulele Songs with G, D, and C* page, the *Ukulele Songs with D, G, and A* page, and *The Full Menu* page (which houses links to the entire *Musical Lives* curriculum); the platform did not report number of visits for those pages that were viewed the least.

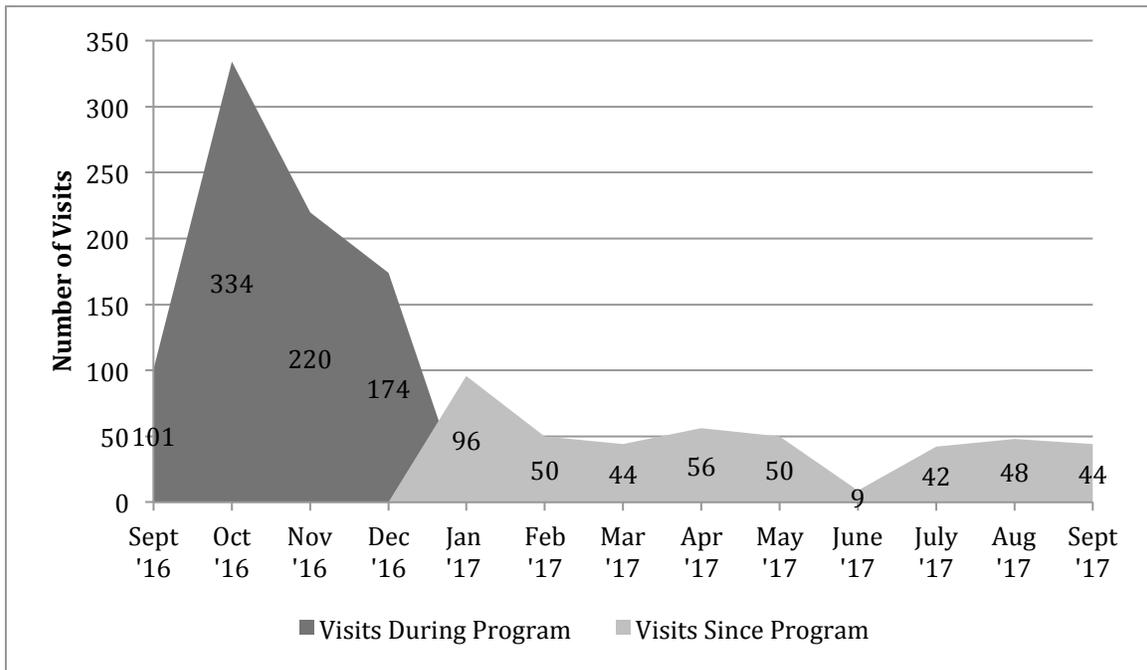


Figure 7. Visits to the *Musical Lives Website*, September 2016 through September 2017.

### **Phases of Development: The *Individual Learning Plans (ILPs)***

Throughout the semester, the teachers were asked to keep track of the rate with which they mastered pre-determined personal music goals on an *Individual Learning Plan (ILP)*. The *ILPs* were collected after week five of the program and then again at the end of the semester. In this section, I provide greater detail concerning the design, use, and results of the *ILP*.

The participants were entirely self-directed as to how, when, or whether they would complete the *ILP* every week, and it is possible that many retroactively completed the *ILP*, or took their best guess at the end of the program. It is also possible that teachers either under- or overestimated their accomplishments. The *ILP* data give but one view into teacher perceptions of their own growth and development. A few of the participants did not return their final *ILPs*; for this section,  $N = 34$ .

The *ILPs* included eight possible areas of focus (A through H) that any participant could have chosen to work on. The most that were attempted was six areas of focus, and the least was three. Each of the areas of focus was broken down further into sub-goals. Many of the sub-goals on the *ILP* could have been checked off simultaneously in any given week. For instance, a teacher could master a new ukulele song while also using that song as a movement activity and working to include her students with disabilities in the activity, thereby using one tune for three separate *ILP* items.

Additionally, the teachers' *ILPs* were shaded to indicate estimated timelines, or possible learning trajectories, for each area. These shaded portions were not intended to convey due dates for mastering a goal, but were meant to suggest that the sub-goals

would not be attempted simultaneously and that it may take several weeks to fully master one goal before moving on to the next. All of the possible areas of focus, sub-goals, and the estimated number of weeks to master the goal are detailed below in Table 15.

Table 15: *Individual Learning Plan* Areas of Focus Sub-Goals, ILP Estimated Mastery

Area of Focus	Sub-Goals	ILP Est. Time to Master
A. Playing Ukulele	1. C, playing song that uses C	Week 1
	2. add F, playing song that uses C, F	Weeks 2 & 3
	3. add G, song that uses C, F, G	Weeks 4 & 5
	4. add Dm, song that uses F & Dm	Weeks 6 & 7
	5. add Am, song that uses C, G, F, Am	Weeks 8 & 9
	6. add D and A, song that uses D, G, A	Week 10
B. Music & Movement	1. Song One:	Weeks 1-3
	2. Song Two:	Weeks 4-6
	3. Song Three:	Weeks 7-10
C. Sing-a-Long Songs	1. Song One:	Weeks 1&2
	2. Song Two:	Weeks 3&4
	3. Song Three:	Weeks 5&6
	4. Song Four:	Weeks 7&8
	5: Song Five:	Weeks 9&10
D. Adaptations for students with disabilities or other needs		Throughout program/ interspersed with other activities.
E. Recorded Music	1. Song One:	Weeks 1-3
	2. Song Two:	Weeks 4-6
	3. Song Three:	Weeks 7-10
F. Instrument Songs	1. Song One:	Weeks 1 &2
	2. Song Two:	Weeks 3 &4
	3. Song Three:	Weeks 5-10
G. Musical Dramatic Play	1. Song One:	Weeks 1-3
	2. Song Two:	Weeks 4-6
	3. Song Three:	Weeks 7-10
H. Family Activities	1. Song One:	Weeks 1-3
	2. Song Two:	Weeks 4-6
	3. Song Three:	Weeks 7-10

During the program, 33 teachers chose to work on Area A, 33 on Area B, 28 on Area C, 20 on Area D, 6 on Area E, 7 on Area F, 14 on Area G, and 2 on Area H. The

final *ILPs* showed widely diverse learning experiences for the group. Some teachers appeared to learn in bursts, and others indicated that they were learning to the estimated mastery timelines as suggested by the shaded areas on the *ILP*. Some specified that they had accomplished all of the sub-goals under a given area of focus, and others checked off 0, 1, or 2 sub-goals per area. Steady gains were made in each area of focus over the 10 weeks of the program, with the greatest average gains in *Area B: Music and Movement*, and the least in *Area E: Recorded Music Activities*.

### **Sub-Group and Individual Differences by Area**

There were observed differences in the reported learning of the HS, MS, and LS groups, as well as for April, May, and June. April was working on six areas of focus: A (*Playing Ukulele*), B (*Music and Movement*), C (*Sing-a-Long Songs*), D (*Adaptations for students with disabilities or other needs*), F (*Instrument Songs*), and G (*Musical Dramatic Play*). May and June were working on the same four Areas of Focus: A (*Playing Ukulele*), B (*Music and Movement*), D (*Sing-a-Long Songs*), and E (*Recorded Music Activities*). In this section, I discuss overall skill mastery as well as differences within each area of focus for the three participant sub-groups and also for April, May, and June.

All three sub-groups reported similar levels of achievement toward the beginning of the program, and the LS teachers reported less overall skill mastery and less early success in the program than did the HS or MS teachers. Differences among the groups and individuals began to emerge by weeks three and four of the program, and widened as the program progressed (Figure 8). At the end of the program, there were large differences in the groups' overall numbers of goals achieved (Figure 9).

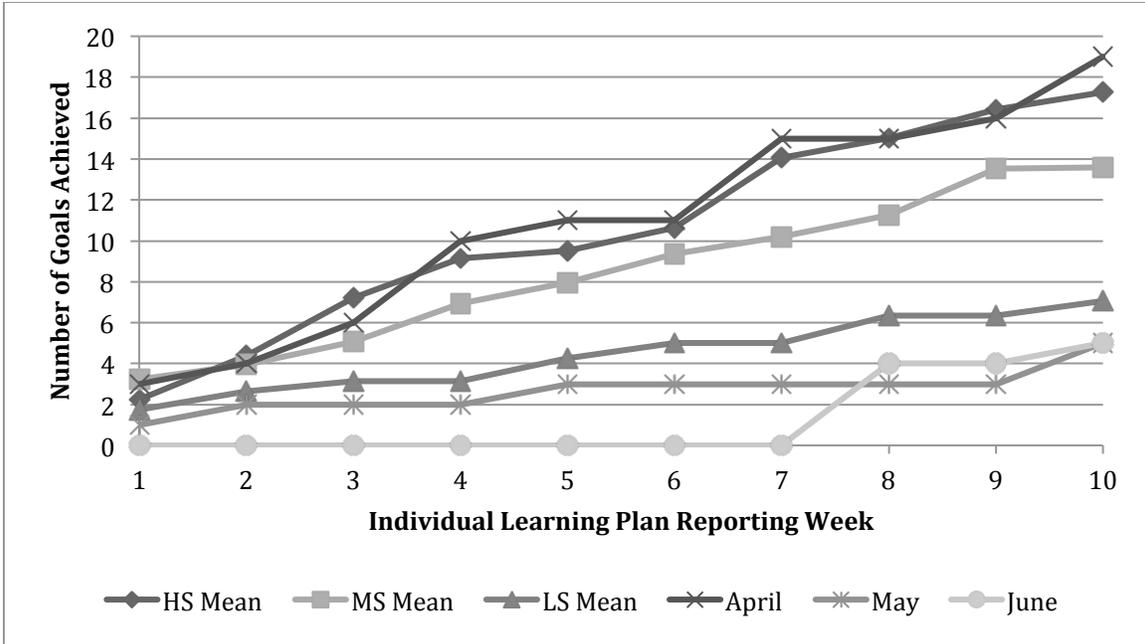


Figure 8: Number of ILP Goals Mastered by Program Week for Participant Sub-Groups, April, May, and June.

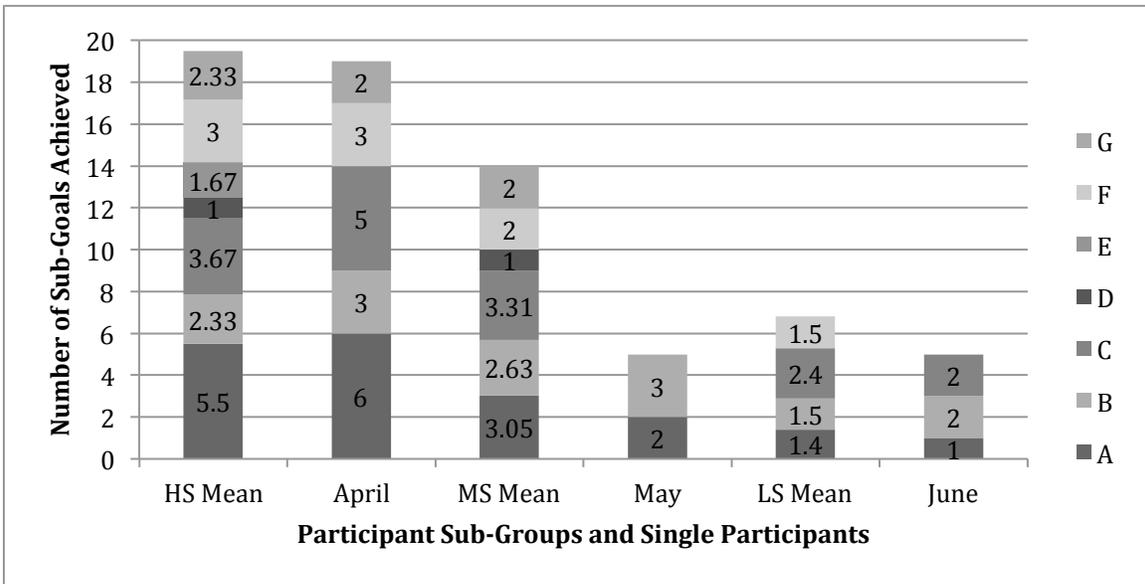


Figure 9: Number of Sub-Goals Achieved by HS, MS, LS, April, May, and June for Areas of Focus A Through G.

## *Singing Learning*

To complete the *Sing-a-Long Songs* area of the ILP, teachers learned five classroom songs. All three sub-groups reported improvement in this area, but the LS teachers reported slower achievement as a group than their colleagues did early in the semester. April's pattern illustrates that reporting less mastery at the beginning of the program was not necessarily the mark of someone who was LS. Learning for May and June is not included in this figure, as neither of them chose to pursue *Sing-a-Long Songs* (Figure 10).

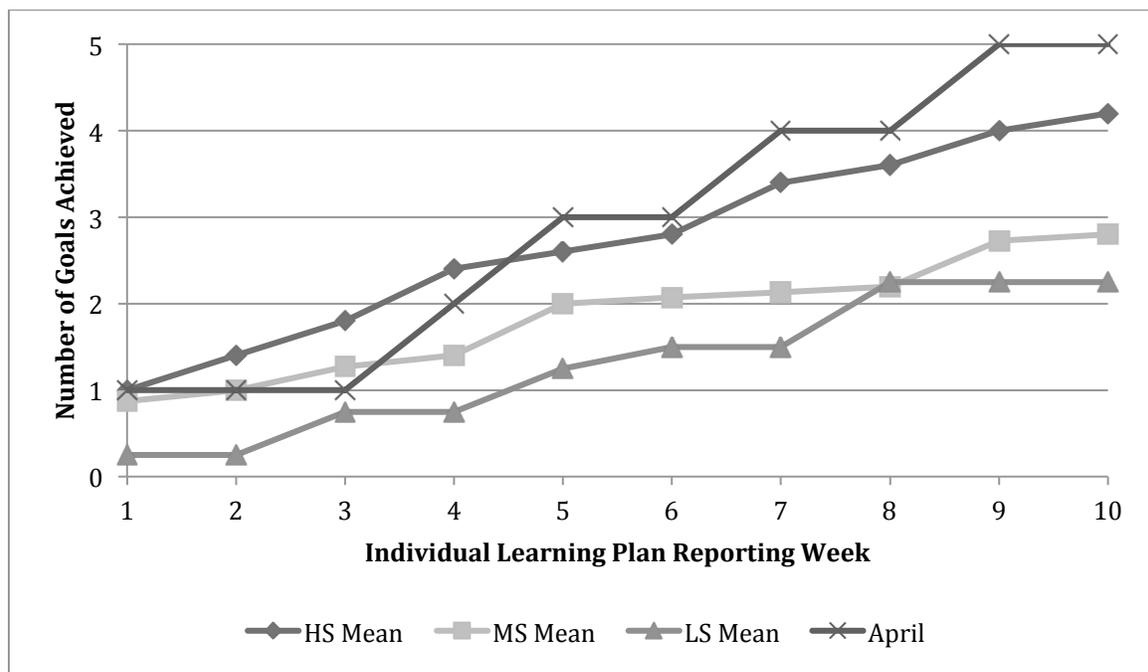


Figure 10: Number of *Sing-A-Long Songs* ILP Sub-Goals Achieved by Program Week for Whole Participant Group, Participant Sub-Groups, and April.

## *Instrument Learning*

Those pursuing *Instrument Playing Songs* worked on three activities; some of these activities also involved singing, others were chant- or game-based. The LS group

reported slightly faster mastery than the MS group on average; however, learning differences within the area were slight. The HS group reported greater overall gains in this area, but not necessarily earlier learning; April's pattern was identical to that of the HS group. May and June are not included in the following figure, as they did not choose to focus on *Instrument Playing Songs* (Figure 11).

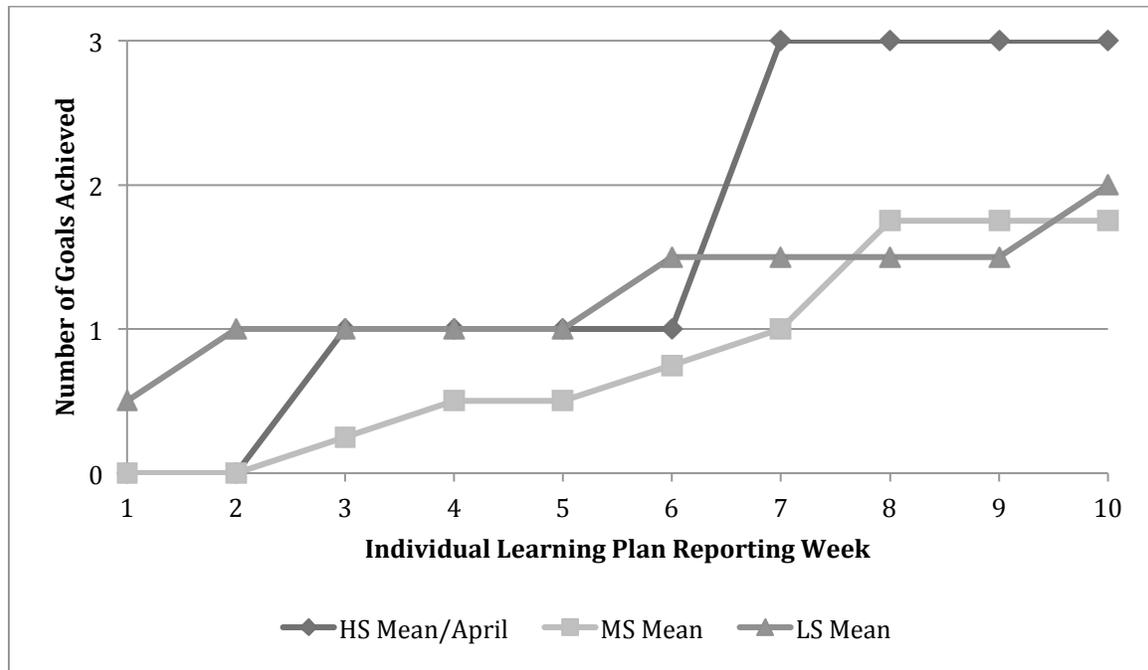


Figure 11: Number of *Instrument Playing Songs* ILP Sub-Goals Achieved by Program Week for Whole Participant Group, Participant Sub-Groups, and April.

Teachers reported the rates at which they mastered *Playing the Ukulele*; in this area, there were six sub-goals of progressively more difficult chord progressions with corresponding repertoire. By week three, the HS teachers had begun to report more mastery than the MS or LS teachers; learning differences between the three groups became wider over the course of the 10 weeks (Figure 12).

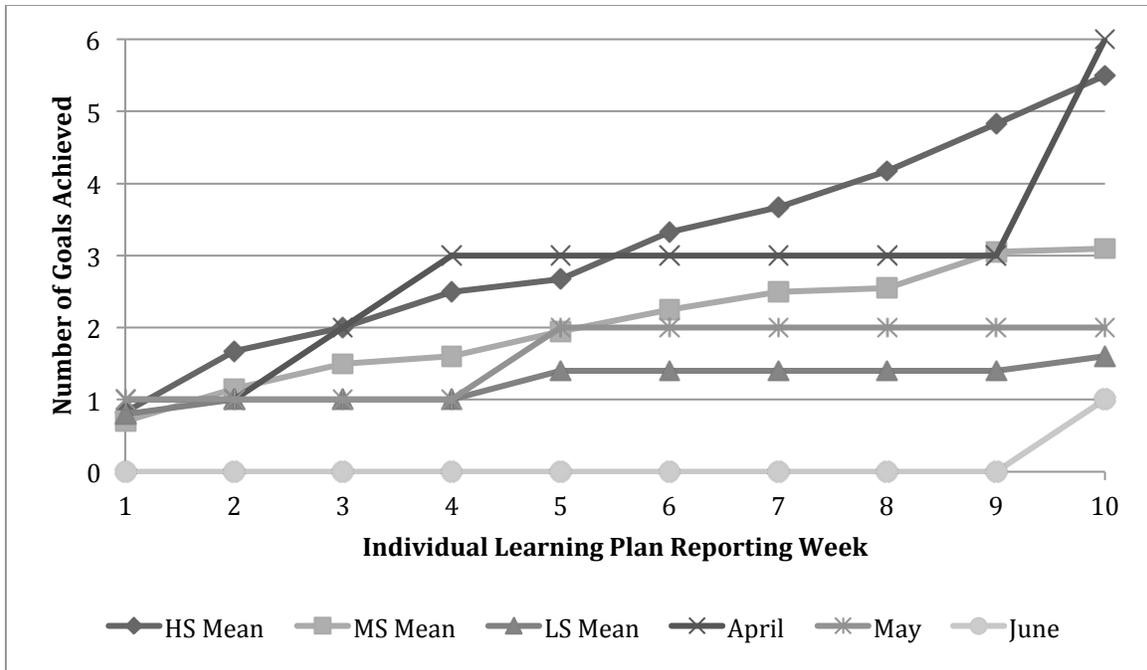


Figure 12: Number of *Ukulele Playing* ILP Sub-Goals Achieved by Program Week for Whole Participant Group, Participant Sub-Groups, April, May, and June.

### ***Music and Movement Learning***

Teachers focusing on *Music and Movement* learned three movement activities using either recorded or live music. The reported learning of the MS and HS groups closely matched each other. The LS group reported less mastery than the other groups by week three; the difference between their achievement and that of the other two groups was apparent throughout the 10 weeks of the semester (Figure 13).

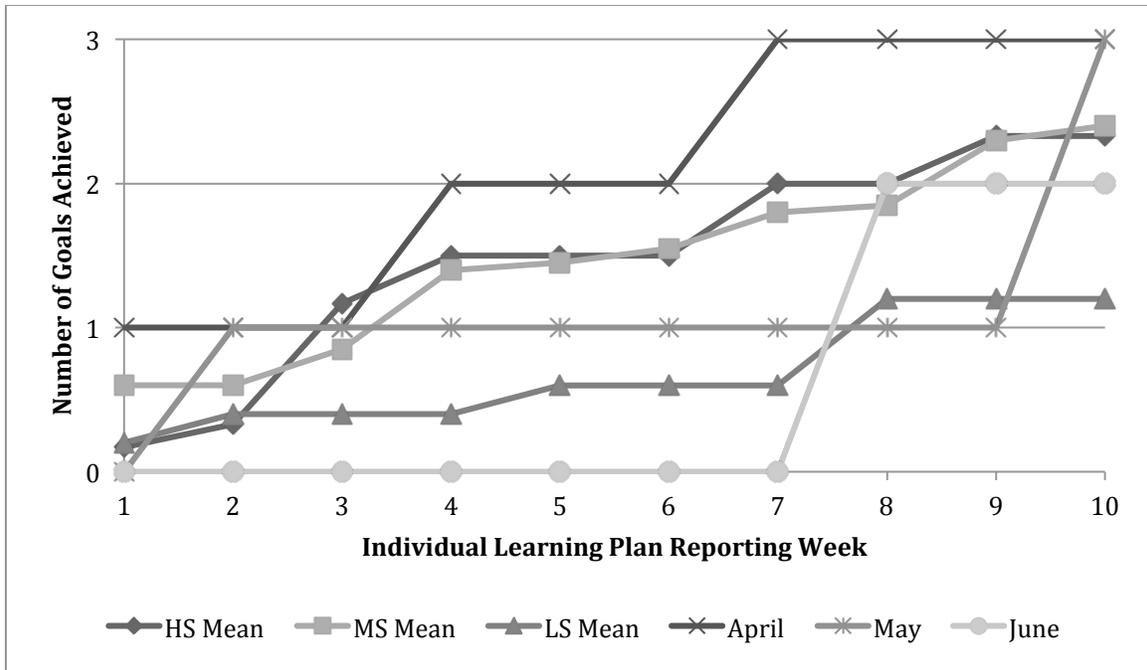


Figure 13: Number of *Music and Movement Songs* ILP Sub-Goals Achieved by Program Week for All Participants, Participant Sub-Groups, April, May, and June.

### ***Musical Dramatic Play Learning***

Teachers focusing on *Musical Dramatic Play* learned three activities that incorporated music into storytelling or book reading. No member of the LS group chose to pursue this area and neither did May or June. This was the only measured area of learning where the HS group did not complete the program with the highest number of goals achieved; however, differences between the HS and MS group are slight (Figure 14).

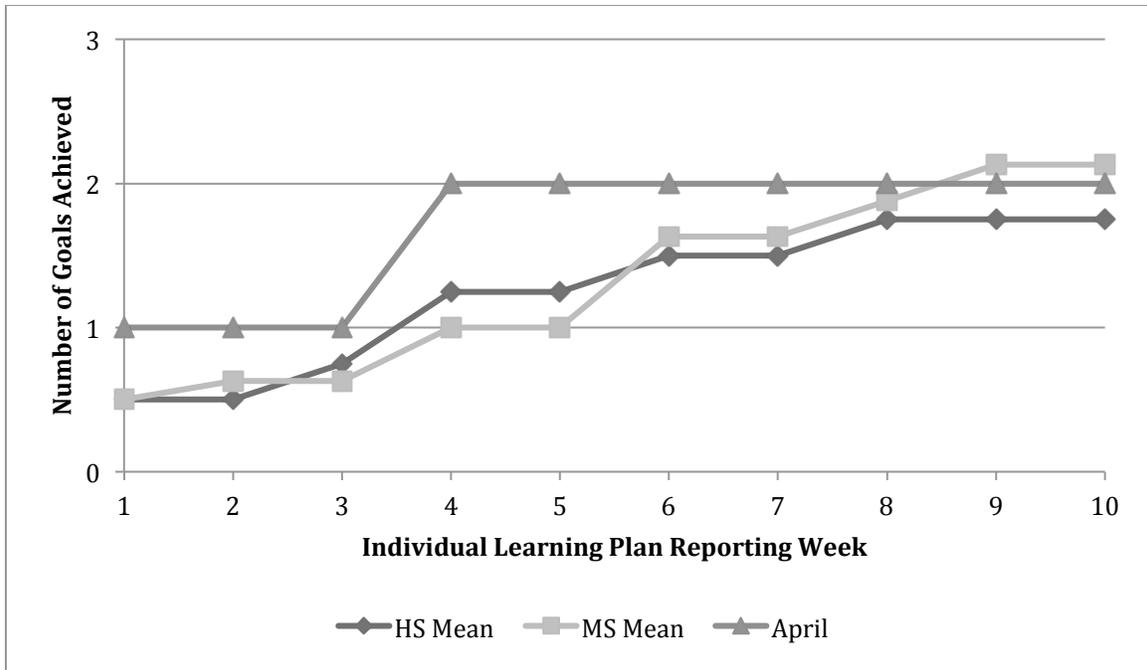


Figure 14: Number of *Musical Dramatic Play* ILP Sub-Goals Achieved by Program Week for All Participants, Participant Sub-Groups, and April.

### ***Recorded Music Listening Learning***

Participants who chose *Recorded Music Activities* attempted to learn three activities that involved recorded music. The teachers did not master as much in this area as they had in other areas. None of the LS teachers who had pursued *Recorded Music Activities* reported that they had mastered any. The lack of progress in this area was an indication to me that I did not spend as much time introducing or developing activities that used recorded music as I did other types of music activities; I discuss potential solutions for this lack of *Recorded Music Listening* learning in the following chapter.

### ***Music Discussion Learning***

I did not gather data on the *ILPs* regarding *Music Discussion*, as this was not a designated area of focus. Rather, the teachers and I explored music discussion as functioning within other music activities. For example, when leading a singing activity with maracas, one teacher asked her PreK class to describe the different ways that they could play their maracas, or to decide whether they should repeat the activity in a new way, such as “loudly” or “softly.”

### ***Learning to Make Adaptations for Students with Disabilities***

Teachers who wished to focus on developing *Adaptations* for their students with disabilities or other special needs were encouraged to work on this area at the same time they were working on their other areas of focus. Teachers who were working on *Instrument Playing Songs*, for example, developed *Adaptations* within those activities; for some, this pertained to how they distributed and collected instruments, decided which instruments they chose to introduce, or adjusted the physical arrangement of the children to facilitate comfortable and safe instrument playing. I made an effort to work on making *Adaptations* with all teachers in *Musical Lives* and not just those who indicated this as a choice for their *ILP*.

On the *ILP*, the teachers indicated when during the 10 weeks that they felt they had mastered the ability to make *Adaptations* within their music activities. Of the 19 teachers who chose *Adaptations* on their *ILP*, 11 indicated that they had mastered it by the end of the program. Four of them indicated that they had mastered this ability by week one, with more teachers indicating mastery over time. All but one of the teachers

who completed a post-*Inventory* felt that every child was being included to the extent that he or she would like to be in classroom music activities.

### **PERSONAL CHARACTERISTICS**

My next research question was: What are the characteristics (e.g., years of experience, confidence, music background) of teachers who were successful and those who were less successful, and can these characteristics be used to identify candidates for in-service music training? In order to answer this question, I explored the participant demographics, musical confidence, and evidence from their musical lives outside of work.

#### **Demographic Data from the Participant Sub-Groups**

After assigning sub-group membership to the participant pool, I reexamined the demographic information that the teachers had provided on the initial *Inventories* regarding their classroom role, years of teaching experience, and the age group they worked with to see if there were any consistencies amongst the three groups. Recall that 8 teachers were categorized as HS, 21 as MS, and 6 as LS.

Whether someone was a Lead teacher or an Assistant teacher seemed unrelated to his or her degree of success in *Musical Lives*. However, more Assistants than Lead teachers were categorized into the HS or LS groups. Most of the Lead teachers were categorized into the MS group (Figure 15).

Three day care centers participated in this study. The distribution of HS, MS, and LS teachers in each center is shown in Figure 15.

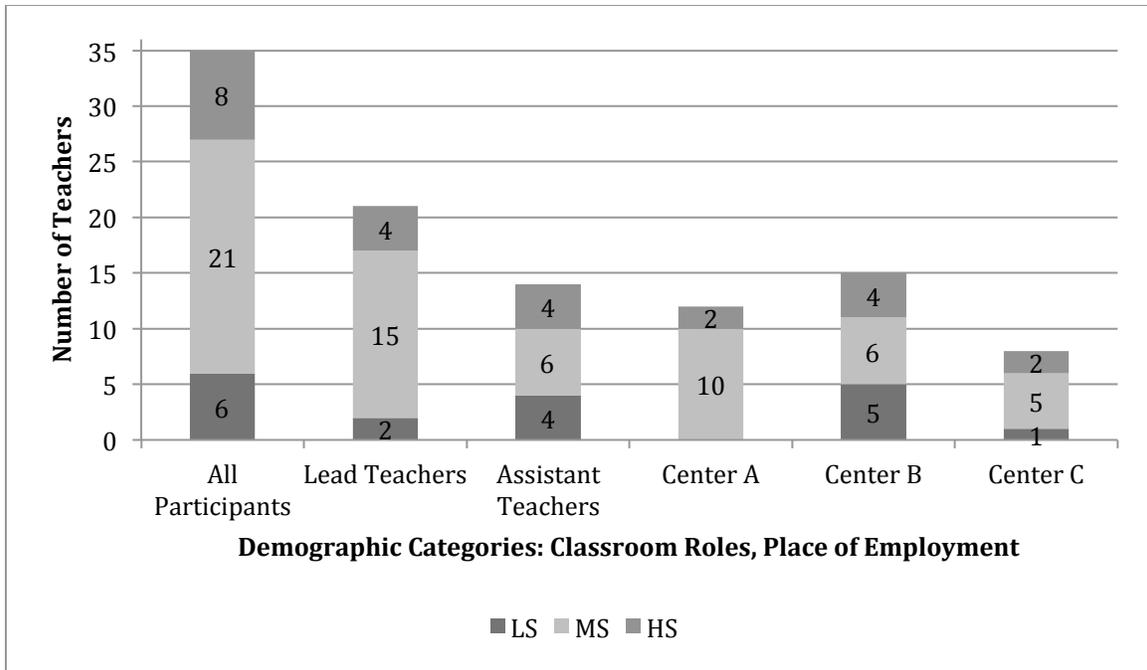


Figure 15: Sub-Group Membership by Teaching Role and Place of Employment.  $N = 35$ .

Teachers of Infants/Babies and 2-year-olds did not have any representation in the HS group; teachers of 2-year-olds made up the largest part of the LS group. The experience of the teachers of 3-year-olds and 4-year-olds/PreK were the closest to what was seen in the whole group distribution, whereas the outcomes of teachers who worked with 2-year-olds and younger were more varied. In Figure 16, I combine teachers of the younger age groups (Infants/Babies through 2-year-olds) and teachers of the older age groups (3-year-olds and PreK).

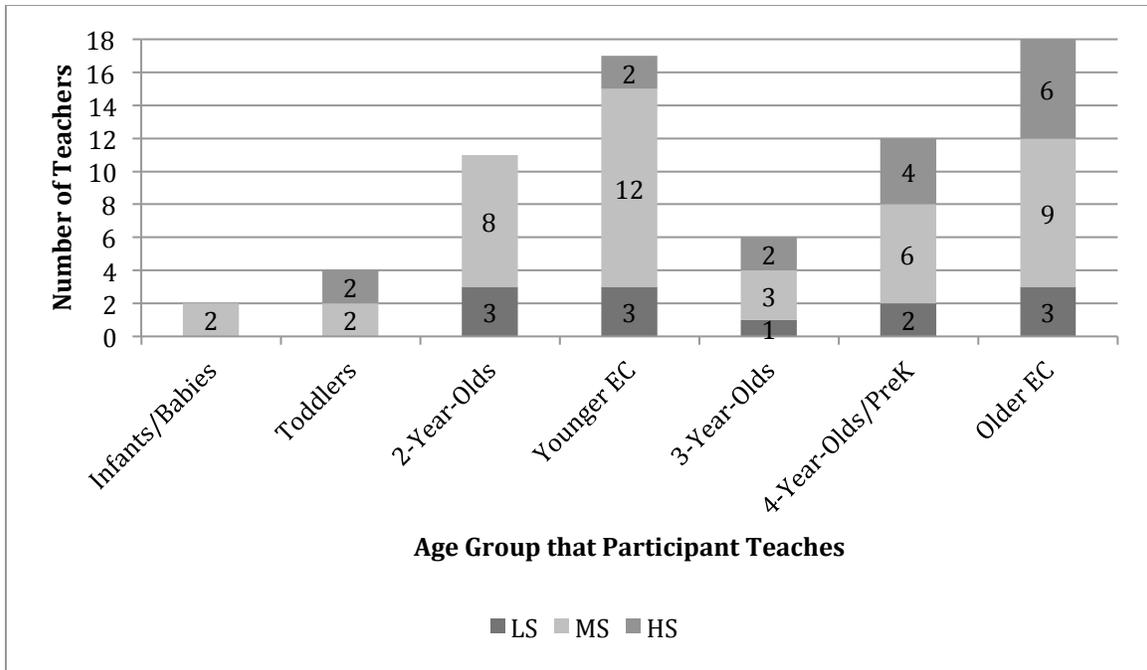


Figure 16: Sub-Group Membership by the Age of Students.  $N = 35$ .

The outcomes of novice teachers (0 to 5 years in the classroom) were closely aligned with what was observed among the entire group of teachers (the majority were categorized as MS, smaller numbers of LS and HS). A greater percentage of mid-career (6 to 15 years experience) teachers and experienced (16+ years) were categorized into the MS group. No experienced teachers (16+ years of experience) were categorized into the LS group.

Not all teachers completed the question on the *Inventory* regarding their years of teaching experience; 24 teachers provided an answer for this question, and 11 teachers did not (Figure 17).

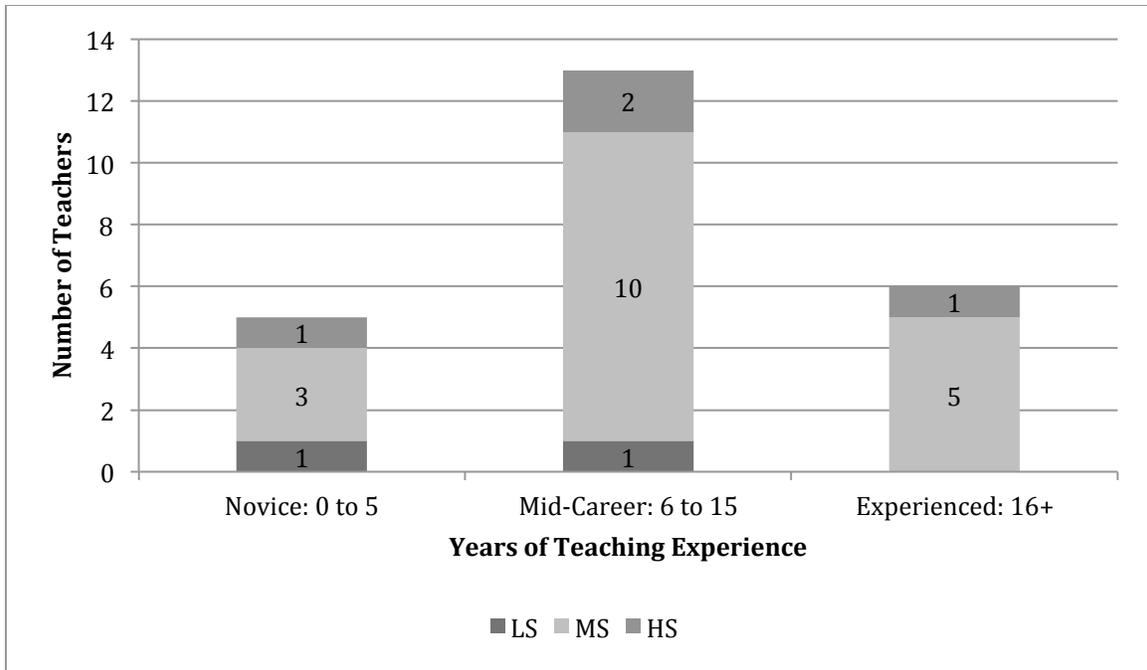


Figure 17: Sub-Group Membership by Years of Teaching Experience.  $N = 24$

### Musical Confidence

Participants were asked to rate their level of confidence for leading different types of classroom music activities, their knowledge about music generally, and in their overall musical ability at the beginning and at the end of *Musical Lives*. Each teacher was asked to indicate levels of confidence on a 5-point Likert scale (1 = “not at all confident” to 5 = “very confident”). The questions that were posed regarding confidence were *Singing Accompanied*; *Singing Unaccompanied*; *Playing Un-Pitched (Percussion) Instruments*; *Playing Pitched Instruments*; *Leading Music and Movement*; *Leading Planned Recorded Music Listening*; *Choosing Recorded Music to Play in the Classroom*; *Leading Music Discussions*; *Overall Music Ability*, and; *Knowledge of the Mechanics of Music*. Data regarding musical confidence are shown in Table 16.

Confidence increased overall in every area that was measured on the *Inventories*; the most dramatic increases were in *Playing Pitched Instruments*, *Leading Music Discussion*, *Overall Music Ability*, and *Knowledge of the Mechanics of Music*. Increases in confidence were seen in each of the participant sub-groups in most areas as well. Notable exceptions were decreases in *Leading Music and Movement* and *Leading Planned Listening* in the LS group.

The HS group reported higher confidence in most areas before participating in *Musical Lives: Singing Accompanied*, *Singing Unaccompanied*, *Leading Music and Movement*, *Leading Planned Listening*, *Choosing Recorded Music*, *Leading Music Discussions*, *Overall Music Ability*, and *Knowledge of the Mechanics of Music*. The pre-program differences in confidence between the HS, MS, and LS groups were most pronounced for *Overall Music Ability*. The largest confidence differences between the HS and the LS teachers at the end of the program were in *Singing Unaccompanied* and *Leading Music Discussions*.

In the post-*Inventories*, I also asked the teachers to indicate how confident they were planning and leading activities for their students with disabilities or other needs. The teachers reported feeling very confident in their ability to make adaptations in music experiences for these students,  $M = 4.39$ ,  $SD = 1.03$ .

Table 16: Teacher Ratings of Musical Confidence

Confidence Area		Group			
		Whole Group	LS	MS	HS
Singing accompanied	Pre	$M = 4.06$ $SD = 1.11$	$M = 3.33$ $SD = 1.63$	$M = 4.05$ $SD = 0.93$	$M = 4.63$ $SD = 0.74$
	Post	$M = 4.34$ $SD = 0.80$	$M = 4.00$ $SD = 1.10$	$M = 4.29$ $SD = 0.78$	$M = 4.75$ $SD = 0.46$
Singing unaccompanied	Pre	$M = 3.66$ $SD = 1.19$	$M = 3.00$ $SD = 1.41$	$M = 3.62$ $SD = 1.17$	$M = 4.25$ $SD = 1.04$
	Post	$M = 4.14$ $SD = 0.88$	$M = 3.67$ $SD = 0.82$	$M = 4.05$ $SD = 0.92$	$M = 4.75$ $SD = 0.46$
Playing un-pitched	Pre	$M = 4.00$ $SD = 1.11$	$M = 3.80$ $SD = 1.64$	$M = 4.05$ $SD = 1.13$	$M = 4.00$ $SD = 0.76$
	Post	$M = 4.60$ $SD = 0.55$	$M = 4.50$ $SD = 0.55$	$M = 4.52$ $SD = 0.61$	$M = 4.88$ $SD = 0.35$
Playing pitched	Pre	$M = 2.15$ $SD = 1.31$	$M = 2.67$ $SD = 1.97$	$M = 1.95$ $SD = 1.00$	$M = 2.25$ $SD = 1.49$
	Post	$M = 3.89$ $SD = 0.93$	$M = 3.67$ $SD = 0.82$	$M = 3.81$ $SD = 1.03$	$M = 4.25$ $SD = 0.71$
Music and movement	Pre	$M = 4.13$ $SD = 0.99$	$M = 4.33$ $SD = 1.03$	$M = 3.94$ $SD = 1.06$	$M = 4.42$ $SD = 0.79$
	Post	$M = 4.43$ $SD = 0.70$	$M = 4.00$ $SD = 0.63$	$M = 4.48$ $SD = 0.75$	$M = 4.63$ $SD = 0.52$
Planned listening	Pre	$M = 4.24$ $SD = 0.95$	$M = 4.20$ $SD = 0.84$	$M = 4.12$ $SD = 1.05$	$M = 4.58$ $SD = 0.77$
	Post	$M = 4.51$ $SD = 0.66$	$M = 4.00$ $SD = 0.89$	$M = 4.62$ $SD = 0.50$	$M = 4.63$ $SD = 0.74$
Background music	Pre	$M = 4.48$ $SD = 0.56$	$M = 4.50$ $SD = 0.55$	$M = 4.50$ $SD = 0.61$	$M = 4.86$ $SD = 0.38$
	Post	$M = 4.77$ $SD = 0.49$	$M = 4.50$ $SD = 0.84$	$M = 4.81$ $SD = 0.40$	$M = 4.88$ $SD = 0.35$
Music discussion	Pre	$M = 3.43$ $SD = 1.38$	$M = 3.25$ $SD = 1.50$	$M = 3.43$ $SD = 1.34$	$M = 3.60$ $SD = 1.67$
	Post	$M = 4.33$ $SD = 0.85$	$M = 3.67$ $SD = 1.03$	$M = 4.45$ $SD = 0.76$	$M = 4.57$ $SD = 0.77$
Overall ability	Pre	$M = 3.03$ $SD = 1.29$	$M = 3.00$ $SD = 1.55$	$M = 2.80$ $SD = 1.36$	$M = 3.63$ $SD = 0.74$
	Post	$M = 4.34$ $SD = 0.68$	$M = 4.17$ $SD = 0.75$	$M = 4.29$ $SD = 0.72$	$M = 4.63$ $SD = 0.52$
Knowledge of music	Pre	$M = 2.62$ $SD = 1.23$	$M = 2.33$ $SD = 1.63$	$M = 2.45$ $SD = 1.28$	$M = 3.25$ $SD = 0.46$
	Post	$M = 3.56$ $SD = 0.61$	$M = 3.50$ $SD = 0.55$	$M = 3.45$ $SD = 0.60$	$M = 3.88$ $SD = 0.64$

Note.  $N = 35$ .

## **Personal Musical Lives**

The teachers' self-reported musical lives outside of work did not largely change as a result of the program. They listened to music every day and sang independently at about the same rate as they had been before *Musical Lives*. Also, the teachers were no more likely to play music with family or friends, to compose songs on their own, or to attend live music events than they had been before participating in the program. The only outside-of-work activity that noticeably increased was the frequency that they were playing an instrument (ukulele) outside of work.

There were few noticeable differences between the responses of the sub-groups in terms of outside-of-work musical behavior. Many of the teachers had participated in orchestra or band when they were in school; this experience did not seem to differ among the sub-groups. Participation in either school or community chorus did seem related to group classification, as all eight members of the HS group had previously participated in chorus.

## **ENVISIONING MUSICAL CLASSROOMS**

My last research questions were: What specific music activities do teachers prefer and find the easiest to implement in their classrooms? And, following the program: How do teachers envision using music in their future classrooms? In order to answer these questions, I considered post-*Inventory* data as well as personal interviews with selected participants.

### **Post-Inventory Findings Regarding Program Elements**

The teachers were asked on the post-*Inventories* to specify their and their children's favorite and most useful *Musical Lives* activities. The three *Musical Lives* activities that the teachers identified were a movement game "Walking in the Green Grass," a song for singing with instruments, "Play and Play," and a goodbye song that we sang at the end of music time, "Hambane Kahle." Twenty-five out of the 35 teachers indicated "Green Grass" as useful and favored, 16 out of 35 identified "Play and Play," and 13 out of 35 teachers identified in "Hambane."

The post-*Inventory* also asked participants to reflect on the content and implementation of the program. Thirty-three out of 35 teachers answered that they had learned what they had hoped to by participating. The two who answered "no" to this question provided additional information. One wrote, "I absolutely enjoyed our time, wish we had longer than one semester"; the second wrote, "I need to practice using the ukulele!" Of the large majority who felt that they had accomplished what they had set out to do, comments included "all in all, I feel more confident in my approach with my students," "I feel more open to music time and more vocal," and "I learned how to engage all of my children with music activities and to embrace the chaos and use it to create beats/music with the class."

Nineteen teachers indicated that they were now teaching music completely differently than they had been before participating in the program, and an additional four teachers indicated that they were teaching music at least somewhat differently from before. Nine said that they were leading music in largely the same way, but were integrating new *Musical Lives* activities into their former repertoire. None of the

participating teachers indicated that they were teaching in the same manner as they had been before.

Thirty-two teachers indicated that they planned to implement music into daily circle time. Having music at rest time and interspersed with other activities were also frequent answers. Sixteen indicated that they wanted to integrate a designated weekly music time, and eight indicated that they wanted to integrate daily music time. Only eight of the teachers had seen this as a viable option at the beginning of the program.

The teachers also indicated how frequently they used *Musical Lives* resources and other (not provided by the program) music resources. *Musical Lives* resources included “ukulele and song paper handouts,” “*Carnival of the Animals* CD,” “website written material” (Musical Lives website lyrics, teaching tips), “website recordings,” and “suggested books.” Non-program resources were “books,” “recordings,” “videos/Youtube/apps,” “my colleagues,” and “other”. For each of these non-program resources the teachers were asked to indicate titles or descriptions. The most frequently used *Musical Lives* resources were the ukulele and song handouts on paper; 32 teachers specified that they used the paper-based resources either weekly or daily. The *Musical Lives* website, the recordings on the website, and the books that I suggested that they use in class were also consistently used throughout the program, although with slightly less frequency than the paper handouts. The teachers were more likely to consult a *Musical Lives* resource weekly and more likely to use their own resource daily (Figure 18).

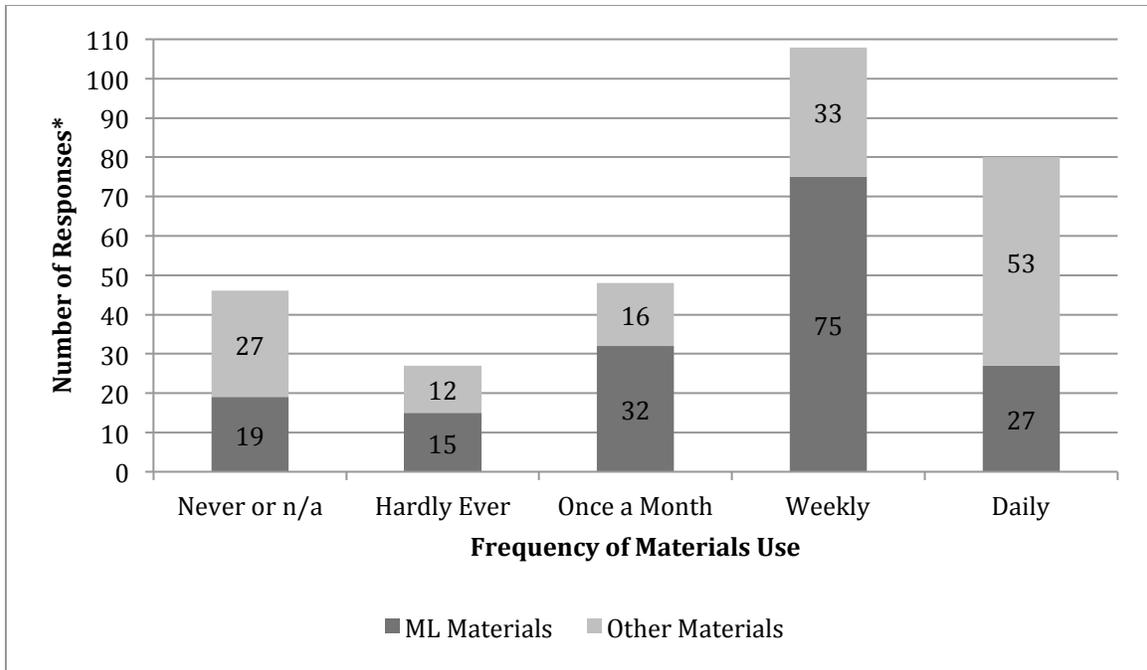


Figure 18: Frequency of Music Materials Use. Frequency of use of 10 types of resources (5 *Musical Lives*, 5 non-*Musical Lives*),  $N = 35$ .

### Interviews

In the spring of 2017, I emailed April, May, June, and several other participants to arrange to interview them about their participation in the *Musical Lives Program*. April and May both responded and consented to be interviewed, as did two other teachers.

The first teacher, who I'll call August, felt that his colleagues could be divided into two camps: those who enjoy music as a listener or performer and therefore enjoy bringing that into their classrooms, and those who see it as a "burden" and therefore never will make an effort to integrate music. Before the program started, he was in the first camp. He and his co-teacher already sang with the children every day and had an established circle time routine centered on music. During the program, he enjoyed ukulele the most, felt good about his progress early on, and set to integrating it into his

daily routine as soon as he could. August told me that he enjoyed being able to quickly transfer what we had done together on ukulele into learning non-*Musical Lives* songs as well. He was looking up chord charts online as soon as he realized that he could read the chord diagrams and figure out anything he liked on his own.

August felt that the structure of the weekly visits was helpful to his learning, and that the accountability of my coming every week kept him practicing and moving forward. In the new school year, he hoped to integrate more formalized music sections into his weekly schedule that integrated the musical preferences of the children, and he was considering ways to use music to bring more multiculturalism into his classroom.

May expressed to me that the biggest challenge she faced in *Musical Lives* had to do with the age group of her students (Infants/Babies). Her position required that she be available for feedings, changes, naps, rocking, and other immediate needs throughout the day, so finding time when it was optimal for group music, or time to practice, was often difficult. She enjoyed getting to work with her own children in the program, however, which to her was the most helpful aspect. May also mentioned that she would have liked the program to be longer; she felt that she was just starting to be successful at the end of the semester, and would have taken the option to sign up for a second semester had it been available.

Another teacher, January, said that he too enjoyed the hands-on work with his own students the most, and that as soon as he had a chance to try something with them, he felt that he could successfully do it. He had already been singing quite a lot with his students before the program began, but was now integrating that skill into singing books and playing group instruments as well.

January, like August, loved his ukulele, and the parents of the children in his class had been very supportive of his efforts. One parent who also played ukulele had brought his into class, and they had played together with the children. The parents of his students had bought him a lovely “gig bag” for his instrument.

April also expressed that the *In-Class Sessions* had provided her with helpful structure and accountability. Interestingly, she mentioned that she had been with her children for two years and she felt that this had contributed to her success. April felt that because of this familiarity with her children, she had already tackled many of the daily challenges in her classroom, which made it easier for her to integrate something new. She pointed to her previous experience teaching in a public school and how that made her approach to teaching more structured than that of other preschool teachers. She felt that her class was already quite structured, so the integration of music time into the day felt neither foreign nor difficult for her children. In the new school year, April planned to integrate weekly group music into her class schedule from the start.

## **OTHER NOTABLE FINDINGS**

### **The Children’s Experience**

On the *Inventories*, the teachers rated their students’ levels of enjoyment for different types of classroom musical activity on a 5-point Likert Scale (1 = “not at all” to 5 = “very much”). The teachers were also given the option to indicate n/a for each of these questions, as teachers of younger age groups may have found it difficult to assess their children’s enjoyment of activities that they were not yet developmentally capable of participating in, such as engaging in musical discussions. The musical enjoyment

questions pertained to: the children in my classroom enjoy *group singing, playing musical instruments, making sound with, or playing non-traditional musical instruments (utensils, furniture, etc.), music and movement activities, music listening activities, and music discussion activities.*

The children's enjoyment of music activities was high at the beginning of the program. Before the program began, the teachers reported that the children enjoyed *music discussion* less than they did other classroom musical activities. *Music and movement* was reported to be the children's most enjoyed music activity before the program.

The children's enjoyment of music activities increased in every music activity by the end of the program. At the end, *music and movement* was still the most enjoyed music activity, and *music discussion* the least. However, *music discussion* enjoyment had increased to the point that it was now comparable to other classroom music activities. Interestingly, 13 teachers responded "n/a" or gave no response to their children's enjoyment of *music discussion* at the beginning of the program. At the end, only four teachers declined to select a *music discussion* enjoyment score. This change in the number of responses indicates that those 11 teachers were engaging in *music discussion* with their students at the end of the program in a manner that they were not at the beginning of the program (Table 17).

Table 17: Teacher Ratings of Children’s Enjoyment of Music Activities

Activity		Enjoyment
Singing	Pre	$M = 4.44, SD = 0.76$
	Post	$M = 4.83, SD = 0.45$
Traditional instruments	Pre	$M = 4.15, SD = 1.03$
	Post	$M = 4.66, SD = 0.68$
Non-traditional instruments	Pre	$M = 4.28, SD = 1.11$
	Post	$M = 4.76, SD = 0.61$
Music and movement	Pre	$M = 4.76, SD = 0.50$
	Post	$M = 4.94, SD = 0.24$
Music listening	Pre	$M = 4.13, SD = 0.99$
	Post	$M = 4.46, SD = 0.78$
Music discussion	Pre	$M = 3.23, SD = 1.45$
	Post	$M = 4.06, SD = 0.96$

Note.  $N = 35$ .

The teachers also rated the children’s frequency of participation in various types of music activities including: *the children listen, respond with physical movement, or sing along when I sing, the children sing on their own, either individually or with their peers, and my students describe music in their own words, music that they have just heard or music that they know, on their own and/or among themselves*. The teachers were asked to indicate how frequently their students engaged in these behaviors in the classroom on a 5-point Likert scale: 5 = daily, 4 = weekly, 3 = once a month, 2 = hardly ever, and 1 = never or n/a.

The majority of teachers reported that their children responded to teacher singing with listening, moving, or by singing along daily before the program began. This had not

changed by the end of the program. Likewise, there were no noticeable differences between the responses of the LS, MS, and HS teachers in either the pre- or post-*Inventories*.

Most teachers reported that the children sang either on their own or with their peers daily before the program. Of the five teachers who responded hardly ever to this question, all but one reported an increase in frequency in the post-*Inventories*; the one who did not report an increase was an Infants/Babies teacher (Table 18).

The teachers reported that the children were more frequently describing music in their own words at the end of the program than they had been at the beginning. Before the program, the majority of teachers (20) reported that this never or hardly ever occurred. By the end, 19 teachers indicated that their children were describing music weekly or daily (Table 19). This increase in the frequency of child-led music discussion occurred primarily within the MS and HS group of teachers.

Table 18: Initial *Inventory* Child Behavior Frequency

Type of Child Behavior	Reported Frequency					
	No Answer	Never or n/a	Hardly Ever	Once a Month	Weekly	Daily
Respond to adult singing	2	-	-	-	7	26
Sing alone or with peers	1	-	5	-	3	26
Describe music	4	8	12	2	4	5

*Note.*  $N = 35$ .

Table 19: Final *Inventory* Child Behavior Frequency

Type of Child Behavior	Reported Frequency					
	No Answer	Never or n/a	Hardly Ever	Once a Month	Weekly	Daily
Respond to adult singing	2	-	-	1	4	28
Sing alone or with peers	1	-	1	-	6	27
Describe music	1	2	9	4	10	9

*Note.*  $N = 35$ .

At the end of the semester, teachers were asked to indicate to what degree their students *cooperated and participated appropriately in music activities* on a 5-point Likert scale of (1 = not at all to 5 = very much). Overall, the teachers indicated that they did,  $M = 4.5$ ,  $SD = .66$ . The teachers were also asked to indicate if their children *sang beautifully* on a 5-point Likert scale (1 = not at all to 5 = very much). Overall, the teachers felt that the children, or at least those who were old enough to sing, did *sing beautifully*,  $M = 4.55$ ,  $SD = .94$ . There were no differences between the three sub-groups' answers for these two questions.

I noted when teaching and observing classes that the children in these centers were at first unfamiliar with having a music class, a time that was designated for the explicit purpose of making music together. The children very quickly learned what to expect at music time and easily moved into established routines. They were enthusiastic, remembered and requested favorite songs and activities from week to week, and participated in ways that I had expected they would in light of my past experiences leading music with other young children. Many of the teachers seemed surprised at the

children's ability to learn and participate as quickly as they did. One teacher remarked to me on the first day after I had led a particularly raucous ABCs with ukulele as the children sang and played sticks that "they never sing that way for me." By the end of the semester the routine of music time had become expected, and they were indeed singing that way with her.

There were opportunities throughout the program for children to witness their teachers' learning. The children often waited and watched as I helped with ukulele fingering, or stepped in to rearrange a game, or stopped singing to give a point of explanation to a teacher, and they were aware that the teachers were learning alongside of them in class. One child, after observing his teacher play her ukulele and lead a game for the first time exclaimed, "you're a champion," as he threw his arms around her with great enthusiasm.

## CONCLUSION

Findings from the *Inventories*, observations of the recorded *In-Class Sessions*, participant interviews, and my own observations create a detailed picture of the teachers, their students, the musical environments of these centers, and what may have changed as a result of the teachers' participation. These results also provide insight into teacher learning, the rates with which they learned new skills, the variety of learning patterns among different adults, and also factors that may or may not contribute to teachers' success when teaching music to young children.

In the following chapter, I discuss how these results may be interpreted, and provide additional insight into what I have learned through leading the *Musical Lives*

*Program* and conducting this study. I also discuss how these results related to my research questions, and what questions now remain.

## Chapter Five: Discussion and Reflections

In the *Musical Lives* program, early childhood caregivers with a variety of experiences and goals participated in comprehensive, intensive music training during the fall semester of 2016. The experiences of the teachers who participated provided many answers to my questions about developing and implementing in-service training programs for early childhood teachers. In this chapter, I first discuss the findings that address my research questions, and then follow with reflections and recommendations for creating similar teacher development programs.

### DISCUSSION OF RESEARCH QUESTIONS

**Question One: What is the overall effect of a music-focused residency on the music environments of participating day care centers?**

As a result of the program, teachers increased the frequency with which they were leading music and also learned a variety of new activities for their children. There was an increase of teacher-planned musical activities in the classrooms—activities that included the use of instruments that the children could play, music related discussions with children, and activities when teachers played the ukulele (a previously unfamiliar instrument).

In many classrooms, much of this music-making was good, with teachers singing well and playing accurately. The *Early Childhood Teacher Musicianship Measure (ECTMM)* showed that musicianship for an individual teacher did not change for the most part; if they could sing one song in tune and strum steadily, then those skills transferred to their other playing and singing. Some of the teachers were consistently

good or very good, though I have no evidence that participation in the program improved anyone's musicianship. Those who were good at the beginning of the program were still good when the program ended, and those who were not, unfortunately, still did not change for the better. If the musical development of the teachers had been identified as an important goal, the duration and nature of the program would need to have been redesigned.

Among those who did not find success in the program, I observed some decreases in the frequency with which they led music and in their confidence to do so; June was an example of this. It is possible that less successful teachers decreased their music activity as they compared themselves to other more successful teachers, a realization that could have discouraged their participation and decreased their interest in the program.

I was at first disappointed when I first realized that the less successful (LS) teachers were pulling back. On deeper reflection, I can see that this outcome may not be entirely negative. As music teachers, one of our goals is to provide the best musical models possible, especially for the very youngest students who are making musical decisions, establishing preferences, and developing skills during their early childhood years (Custodero, 2006; de l'Etoile, 2006; Masataka, 2006; Soley & Hannon, 2010). If this program encouraged some teachers to step forward and lead more music in accordance with their talents, then that may serve the betterment of the children's musical learning.

Many teachers who decreased their frequency of singing or instrument playing still continued to use recorded music activities in class. The less successful teachers did not decrease their use of recorded music activities, and interestingly, across all of the

teachers, the only type of music activity that the program appeared to have no effect on was recorded music listening.

The participants' recorded music learning did not progress on the *Individual Learning Plans (ILPs)* to the same degree as had other areas. This is likely a result of my not having prioritized recorded music activities as highly as other activities. Developing listening activities became less of a priority, since the teachers were already leading recorded music activities frequently and confidently before the program began. This omission may have left teachers who were less confident singing or playing instruments with fewer musical options. Future programs may want to include more training in this area, particularly for those teachers who feel less confident singing.

It is important to note that I visited the classrooms weekly, a schedule that provided the teachers with regular support throughout the semester. Assessment of whether the teachers' music learning was internalized and integrated into their teaching would require observational data during a period while I faded my assistance, and also after my weekly support of the teachers had ended. I would be interested in talking with these teachers and administrators after several months or a year after the program concluded. The interviews with teachers suggest that many of them had every intention of integrating music time more frequently into the classrooms; their good intentions left me hopeful.

**Questions Two and Three: What music skills do teachers master easily? What is the timeline for skill acquisition, and what differences, if any, can be observed in learning for those who were more or less successful than others?**

Music and movement games appeared to be the easiest and fastest for all of the teachers to master; this category emerged with the highest level of mastery by week three in the program, and with the exception of one week, maintained the highest level of mastery until the end (Figure 9). It could be that the teachers saw more opportunities to use music and movement activities than they did group instrument playing or group singing; use of music and movement was frequent before the program began and this did not change. Perhaps mastery in this area was connected to usefulness of the repertoire—seeing more opportunities to fit new music and movement activities into the existing daily routine may have functioned as an incentive to master these activities more quickly than others.

By about week three, the highly successful (HS) teachers began to master more goals than their colleagues did. Although I do not recall from my own observations at that point who was or was not successful, the teachers themselves were already reporting learning on their *ILPs* that could have predicted how the rest of the semester would go.

Attendance in program activities (e.g., *Lunch-and-Learn* sessions, *In-Class Sessions*) was highest for HS teachers and lowest for LS teachers. There are several possible explanations for these differences. Feelings of success (or lack of success) may have encouraged some teachers to attend program events and discouraged others. Also, consistent attendance may have assisted some teachers' learning and led them to greater success in the classroom. Those who attended more events had more opportunities to ask

questions, practice, observe, and feel a sense of community with their colleagues who were in the program. Although the cause of their success cannot be determined, it was likely that regular attendance contributed to their greater success in the classroom, their enthusiasm for the program, and ultimately the overall quality of their experience.

**Question Four: What are the characteristics (e.g., years of experience, confidence, music background) of teachers who are successful and those who are less successful, and can these characteristics be used to identify candidates for in-service music training?**

This research question is perhaps the most pertinent to administrators who consider and plan faculty professional development events, particularly in settings where resources are limited and cost can be a barrier to training. By identifying ideal candidates before training, it is likely that administrators can use funds more efficiently and maximize the effectiveness of programs.

I did not observe a clear connection between teachers' years of experience or teaching roles (e.g., Lead, Assistant) and the likelihood of their success. However, teachers who worked with the older EC years—3-year-olds and PreK—were more likely to emerge as HS than were their colleagues who worked with younger children. Since the program repertoire was diverse and adaptable for all ages, the reason for this finding may have to do with the logistical restraints of working with the youngest age groups. Teachers of Infants/Babies, Toddlers, and 2-year-olds were often pulled away to attend to children's needs (e.g., diaper changes, safety concerns, upset or crying children), responsibilities that could interrupt the implementation of any learning activity, including those with music. Regardless, this is an area that deserves further research; the needs of

birth to age five classrooms are perhaps too diverse to be served by a single teacher development program.

Having a higher degree of confidence in one's abilities indicated that a teacher could be successful in the program. This was particularly true when one had a higher level of confidence in her overall musical ability. I did not conduct any measures of musical ability prior to the program, so there is no way to know if higher degrees of confidence were due to actual ability. It seems likely, however, that teachers who began the program confident in their musical abilities and knowledge were also confident and competent leading children in music activities.

There also appeared to be a connection between success and previous musical training or experience, as all of the HS teachers had participated in chorus at some point in their lives. Previous instrument study did not have as clear of a connection to success. Much of the program's curriculum required teachers to sing, and it could be that comfort and familiarity with singing enabled some teachers to learn the repertoire quickly and set about implementing it with their children. Those who would become HS also expressed having high confidence in their singing ability. It should be mentioned however, that participation in school chorus alone was not a definitive indicator of potential program success—10 of the teachers from the moderately successful (MS) and the less successful (LS) group also had some previous choral experience. The high success of some teachers in the program may have been the result of having confidence in their ability to sing well *and* previous group singing experience.

In summary, a teacher's background in music appeared to be more important than one's role in the classroom or years of teaching experience. Successful teachers appeared

to possess higher confidence in their musical abilities and to be supported in the program by their previous singing experiences.

**Questions Five and Six: What specific music activities do teachers prefer and find the easiest to implement in their classrooms? And, following the program, how do teachers envision using music in their future classrooms?**

A question about specific types of activities may appear narrow, and relevant only to the program that is discussed in this document. I was less interested in which pieces were favorites, per say, but rather *why* those pieces were favored.

The three most favored activities, “Walking in the Green Grass,” “Play and Play,” and “Hambane Kahle” were used frequently throughout the program; all are in major keys and are easy to sing. Other tunes were in major keys and easy to sing, so some other factors must have influenced the teachers’ preferences. The order in which these pieces were taught may have been an influence; these three were introduced early in the program, in some classes as early as the first week. Teachers mastered them quickly and they were a favorite among the children. The latter is perhaps not surprising, since previous studies have found that children more frequently choose familiar music than novel music (Johnson-Green & Custodero, 2002; Soley & Hannon, 2010). The combination of the early introduction to these pieces, repetition, quick mastery, and the children’s enthusiasm may explain why these three pieces were identified as program favorites. These are important considerations should other centers choose to develop program repertoire.

Many teachers indicated that they could envision an increased presence of music in their future classrooms or the inclusion of a designated music time. However, it is not

clear if this intention actually resulted in the introduction of music time into the daily schedule or if it remains in the schedule today. The website continues to be visited since the program closed. Perhaps some teachers are continuing to consult the repertoire or ukulele songs and tools, but it is unclear who has been visiting the website.

## **REFLECTIONS**

### **Recommendations for Future Programs**

Before the semester began, I tried to think through all of the details that would be important in the development of such a large-scale training program as *Musical Lives*. Now, having gone through the process, I have insights about components of the program that went well, others that did not go very well, and still others that required a different approach. From these reflections, I have several recommendations for child care centers that may be interested in developing such a program.

#### ***Recommendation 1: Number of Teachers and Size of Program***

It was ungainly to work with 40 teachers every week. I felt harried throughout, desiring more time to work with each person, and feeling pressure to get to all of the classrooms on time. Now that I have a better idea how to identify individuals who would be most successful, I know that these individuals need to be identified earlier in the process and that this group of teachers should be the focus when designing and implementing the program.

One way to accomplish this would be to spend more time working with the teachers, perhaps in group workshops like the *Lunch-and-Learns*, for several weeks before teachers had the chance to sign up for the semester of *In-Class Sessions*. That way,

teachers would have had the opportunity to see whether this was something they felt successful doing *before* making a commitment to participate for the entire semester.

***Recommendation 2: Identify Teacher Characteristics and Provide Support***

Teachers who had confidence in their musical abilities were more successful in the program, as were those with previous singing experience. In light of that, asking questions about confidence before the program begins is advisable, as are initial meetings or *Lunch-and-Learn* sessions as a way to develop musical confidence. The goal is to create positive learning experiences where the participants would feel successful as quickly as possible.

It would be beneficial to identify those who had previous positive singing experiences, and perhaps even form a faculty choir as a part of the program. If experience with singing outside of the classroom leads to more success in the classroom, then a faculty choir would be supportive to the teachers' growth and enjoyment.

***Recommendation 3: Flexible Duration of Program and Commitment***

The duration of the program is a factor worth considering in the future. This program was limited to one semester, but a more open-ended timeline could have produced greater results for more teachers. If confidence in one's overall musical ability was an important factor, then perhaps those teachers who ended the semester with increased confidence could pursue a second semester of study and even achieve highly successful outcomes. An open timeline with more opportunities to opt out or opt in would have helped support the strongest musicians in the group, and would have helped those with a longer learning trajectory to gradually become more successful. Likewise, if the

program had been broken down into stages, with the option to either continue or not continue every few weeks, it would have allowed me more time to work with those who continued.

***Recommendation 4: Flexible Program Structure***

Within the program structure, I would adapt the *In-Class Sessions* to include more time with the younger age groups, rather than less, with more opportunity for day-to-day flexibility. In the youngest classrooms, the time for scheduled music may not be optimal for any number of reasons on a given day. In order to maximize the experience for EC teachers of younger children, the program should be flexible to allow for schedule anomalies.

***Recommendation 5: Regular Contact with Teachers***

The *In-Class Sessions* and *Lunch-and-Learn* meetings were equally important to the growth of the teachers. In one setting, they were able to observe and practice in real time, in another they were able to ask questions and work closely with their colleagues. Future programs of this type should include both teacher workshops and in-class teaching opportunities.

***Recommendation 6: Flexibility for Co-Teaching or Exchange Teaching***

When I came into the centers, the children knew me as a music teacher/specialist; I only stayed for the scheduled music time, and was not integrated into their daily lives in any other way. I speculate that they behaved differently for me than they did for the regular teachers. Interestingly, one teacher made the same comment at the end of the

program. She told me that she felt nervous teaching music for her own students, but not about teaching music in another class. This, she thought, was due to the fact that her students already saw her in one way, and that they did not see her leading music as a special event. She and her colleague down the hall were toying with the idea of swapping places once a week to teach music to the other's class. I would be very interested to see how this would work for the teachers, and what differences there are in the children's experiences when they are taught music by a teacher they are with all day compared to a specialist.

### **FUTURE RESEARCH**

I expect that these centers experienced turnover or classroom switching for the 2017-2018 school year, but a follow-up of participating teachers and administrators could contribute important information for the development of similar programs. I would like to conduct follow-up surveys and interviews to examine how music in the centers changed, if at all, when the next school year begins. Several questions could be asked in a follow-up study. For example, are those who indicated that they wanted to integrate weekly music time in their classrooms continuing to do so? Are the teachers who learned to play the ukulele continuing to use this instrument in their classrooms or at home? And what songs or activities are they continuing to use and why?

### **THE REALITIES OF PRESCHOOL**

As I discussed at length in Chapter Two, preschool and day care environments in the United States have many inherent challenges. Lack of resources, high teacher turnover rates, low teacher pay, and an expanding student population are all realities of

the Early Childhood profession (Datta et al., 2013; U.S. Census Bureau, 2013). The trend in recent years has been moving away from young children staying at home with their parents before elementary school and moving toward more and more children attending preschool or day care (Barnett et al., 2017; National Center for Education Statistics, 2017). The Early Childhood profession will need to adapt in order to accommodate this increased demand, and this will mean reexamining how teachers are prepared for the classroom and the in-service support they receive.

Programs such as *Musical Lives* are an example of what is possible in early childhood. However, I fear that this program would not have been financially sustainable if it had not been a University sponsored research project at no cost to the centers that participated. Over the course of the semester, I spent more than 17 hours a week on-site at the centers for 12 weeks. In addition, I spent an additional five hours a week planning, working on the website, emailing teachers, making recordings, and creating handouts, for a total of 264 hours to run the entire program (not counting the hours that I spent working on the research itself). If I had charged \$50 an hour as a consultant, which would be a conservative fee, the instructional time would have cost upwards of \$13,200. It is probably safe to say that in the average day care center in the United States, where the mean teacher salary is \$22,000 a year, it would be difficult to find the resources to support such an initiative (Datta et al., 2013). For those reasons, and others, it is important for centers to identify teachers from the outset who stand to benefit the most from such training; this would be a more cost effective and sustainable way to implement a future program such as *Musical Lives*.

It is also important to consider how much we ask of teachers, and when professional development asks too much. Like all teachers, EC teachers have many responsibilities. They must keep to a schedule, prepare for parent-teacher conferences, complete required assessments, be inspected, plan lessons, manage student behavior, change a diaper, stop a bloody nose, greet a child who arrives late or leaves early, speak with anxious parents who are leaving their infant for the first time, prepare bottles and feedings, help 2-year-olds learn to work together, and soothe a screaming baby.

Early childhood is tough, and training programs need to be meaningful for teachers' classroom experiences and for the musical development of children in their care. I applaud these 40 teachers who took extra time and made a special effort to participate in *Musical Lives*.

## **CONCLUSION**

This project was many things. Like most activities that involve young children, it was rewarding, often loud, exhausting, and occasionally hilarious. I hope that my experiences, results, and reflections may prove useful to others who wish to develop similar types of teacher training programs. The field of Early Childhood Music is in many ways still finding its footing in the current landscape. There is still much to learn about young children's music-making and how to best develop teachers who will be ready to provide and support children's joyous musical development.

## Appendices

### APPENDIX A: INTRODUCTORY LETTER

August 29, 2016

Dear UTCDC Teachers,

My name is Caroline Moore, and I am a PhD Student in Music and Human Learning at the Butler School of Music here at UT. Those of you who were in attendance at the Wildflower Center last spring may recall my previewing a teacher-development program in early childhood music that I will be conducting in the Child Development Centers as part of my doctoral research. The purpose of the project is to assist teachers in developing their own music skills in context in their own classrooms. One important feature of the program is its focus on individual teacher's goals. My intent is not to provide a single set of instructional activities in which everyone will participate. Instead, my intent is to help each of you reach personal goals related to music and incorporating music in your classrooms.

After our meeting in March, all 70 UTCDC teachers indicated their desire to participate. For those of you who are new to the Child Development Centers, I invite you to join as well. There is no cost to participate in the program; it is being supported by the Center for Music Learning at the Butler School of Music at UT, in cooperation with your Centers.

I wanted take the opportunity here to describe what participating in the project—which I am currently calling *Musical Lives*—fully entails. *Musical Lives* is open to all lead and assistant teachers, and your participation in this project is completely voluntary. My goal is that we will work together to enhance the musical experiences of the children in your classroom, and you, perhaps, will learn some new music skills, learn an instrument, learn some new songs, and at the very least have fun.

The in-class portion of the project will begin mid-September, and will go through the second week in December. Below are several steps that you will be involved in throughout the project:

#### **Step 1:**

Complete a *Consent to Participate in Research* form and a *Music Inventory*, a questionnaire about music in your classroom, music in your own life, and your goals and interests. This is a paper questionnaire that will take about 15-20 minutes to complete.

**Step 2:**

After reviewing the questionnaire, together we will make an *Individual Plan* that corresponds with your interests, and that sets up some target goals that we will work toward over the course of the fall.

**Step 3:**

I will start visiting your classroom once a week (see schedule). For the first few weeks, I'll lead music experiences with your children, followed by weeks where we will teach together. By the end of the semester, you will be leading music and I will just be observing or supporting you. If you already teach a lot of music in your classroom, we may work toward our goals more quickly, but, if you feel more comfortable co-teaching for a longer period of time, that will be fine. I will videotape the class sessions if the parents have given consent.

**Step 4:**

During the fall, all teachers who are participating will attend once a month Lunch-and-Learn Sessions where we will go over songs and activities together as a group, and also perhaps work on playing instruments. On the weeks where there is not a formal Lunch-and-Learn, I will host informal jam sessions during the lunch hour for teachers who would like to attend for more practice.

**Step 5:**

At the end of the semester, I will ask you to complete another *Music Inventory* questionnaire. This will again take about 15-20 minutes to complete.

**Follow up:**

I will check in over the course of the spring to see how things are going – this might include visiting some of you in your classroom, or perhaps we'll go out for coffee if you're interested in a personal interview.

If you have read through the above, and feel that you may be able to fully participate in the *Musical Lives* project, please complete a *Consent to Participate in Research* form and a *Music Inventory* questionnaire and return them to your Center's front desk **by Tuesday, September 6<sup>th</sup>**. These forms will be available at the front desk of each center by the end of the day today (Monday, August 29<sup>th</sup>). Thank you very much for your participation in my doctoral research. Please feel free to reach out to me if you have any questions. I am so excited to start making music with you and your children this fall!

## APPENDIX B: CONSENT FOR PARTICIPATION IN RESEARCH

IRB USE ONLY  
Study Number:  
Approval Date:  
Expires:  
Name of Funding Agency (if applicable):

### Consent for Participation in Research

**Title: Music Infusion Project**

#### Introduction

The purpose of this form is to provide you information that may affect your decision as to whether or not to participate in this research study. The person performing the research will answer any of your questions. Read the information below and ask any questions you might have before deciding whether or not to take part. If you decide to be involved in this study, this form will be used to record your consent.

#### Purpose of the Study

You have been asked to participate in a research study about music in early childhood centers. The purpose of this study is to enrich each participant teacher's musical abilities, and also the musical environment of your classroom and center.

#### What will you be asked to do?

If you agree to participate in this study, you will be asked to work with me in your classroom once a week for ten weeks (schedule to be discussed). During that time, you will observe me teaching music, leading to our teaching together, and to eventually you teaching music independently. Also, you will attend three Lunch and Learn meetings over the course of the semester, where we will work on techniques and music curriculum for the classroom. You will also be invited to participate in once-a-month optional jam sessions, where we will have the opportunity to explore making music together more deeply.

Additionally, you will be asked to complete two *Music Infusion Inventories* about your involvement with music and music in your classroom – one at the beginning of the study, and one at the end. We will also work together to create an *Individualized Learning Plan* for you, according to your experience and interests.

This study will take approximately 10 weeks (beginning in September, and going through the beginning of December), and will include approximately 70 teachers. Your participation may be video recorded.

#### What are the risks involved in this study?

The potential risk to the participants is no greater than everyday life.

#### What are the possible benefits of this study?

The possible benefit of participation is the enhancement of the musical environment of your classroom, and perhaps your personal musical life as well. There is also a potential benefit for increased teacher collaboration within each participating institution.

#### Do you have to participate?

No, your participation is voluntary. You may decide not to participate at all or, if you start the study, you may withdraw at any time. Withdrawal or refusing to participate will not affect your relationship with The University of Texas at Austin (University) in anyway.

If you would like to participate, please sign this form, and return it to Caroline Moore. You will receive a copy of this form.

#### Will there be any compensation?

You will not receive any type of payment participating in this study.

The University of Texas at Austin  
Institutional Review Board – Revised August 2015

Page 1 of 2

**How will your privacy and confidentiality be protected if you participate in this research study?**

Your privacy and the confidentiality of your data will be protected; your names, the location of the centers, and other identifying details will be changed in any publication or discussion of the study. Surveys, interviews, and videotapes will be kept confidential throughout and following the study.

If it becomes necessary for the Institutional Review Board to review the study records, information that can be linked to you will be protected to the extent permitted by law. Your research records will not be released without your consent unless required by law or a court order. The data resulting from your participation may be made available to other researchers in the future for research purposes not detailed within this consent form. In these cases, the data will contain no identifying information that could associate it with you, or with your participation in any study.

If you choose to participate in this study, you may be video recorded. Any video recordings will be stored securely and only the research team will have access to the recordings. Paper records and videos will be kept for three years beyond the publication of this study, and will then be destroyed.

**Whom to contact with questions about the study?**

Prior, during, or after your participation you may contact the researcher, Caroline Moore, at (917) 749-4218 or send an email to [cwmoore33@utexas.edu](mailto:cwmoore33@utexas.edu) for any questions or if you feel that you have been harmed. This study has been reviewed and approved by The University Institutional Review Board and the study number is [STUDY NUMBER].

**Whom to contact with questions concerning your rights as a research participant?**

For questions about your rights or any dissatisfaction with any part of this study, you can contact, anonymously if you wish, the Institutional Review Board by phone at (512) 471-8871 or email at [orsc@uts.cc.utexas.edu](mailto:orsc@uts.cc.utexas.edu).

**Participation**

If you agree to participate, please sign this form, and return it to Caroline Moore. You will receive a copy of this form.

**Signature**

You have been informed about this study’s purpose, procedures, possible benefits and risks, and you have received a copy of this form. You have been given the opportunity to ask questions before you sign, and you have been told that you can ask other questions at any time. You voluntarily agree to participate in this study. By signing this form, you are not waiving any of your legal rights.

**NOTE: Include the following if recording is optional:**

- I agree to be video recorded.
- I do not want to be video recorded.

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

As a representative of this study, I have explained the purpose, procedures, benefits, and the risks involved in this research study.

\_\_\_\_\_  
Print Name of Person obtaining consent

\_\_\_\_\_  
Signature of Person obtaining consent

\_\_\_\_\_  
Date

## **APPENDIX C: FAMILY WELCOME LETTER**

Dear UT Child Development Center Families,

This letter is to inform you that your child's teachers are participating in a research study about music in the early childhood classroom. Over the course of this semester, your child's teachers may be videotaped as they lead music activities in the classroom.

During the course of the videotaping, your child may be recorded. Please note that individual children are not the primary focus of this research; I am gathering data on the teachers' interactions with her or her classes. Your child's full name will not be used in the recording, nor will I use your child's name or identifying characteristics in any eventual display of the videotapes.

If you have not given consent for your child to be videotaped within UTCDC research projects, then I will arrange the camera so that your child will not be recorded; if that is not possible in any given study activity, I will not record your child's class at all.

Please feel free to contact me with any questions or concerns that you may have. Thank you.

All the best,

Caroline Moore  
PhD Student, Music and Human Learning  
The University of Texas at Austin

**APPENDIX D: MUSICAL LIVES PRE-INVENTORY**

***Musical Lives - Music Inventory***

**Name:**

**Center:**

**Group:**

**Current classroom title/role:**

How many years have you been teaching or working with young children:

Please indicate what music equipment or instruments are readily available for the teacher's use in your classroom (check all that apply):

- Piano or electric keyboard
- Guitar or ukulele
- Autoharp
- Rhythm instruments (sticks, drums, shakers, etc.)
- Pitched instruments (xylophones, metallophones, etc.)
- Instruments from various parts of the world (djembes, claves, conga, etc.)
- Props (puppets, hoops, scarves, etc.)
- Recorded or streaming music (cds, ipods, etc.)
- Books (story songbooks, sing-along books, etc.)
- Other (please describe): \_\_\_\_\_

Please indicate what music equipment or instruments are readily available for the children's use in your classroom (check all that apply):

- Piano or electric keyboard
- Guitar or ukulele
- Autoharp
- Rhythm instruments (sticks, drums, shakers, etc.)
- Pitched instruments (xylophones, metallophones, etc.)
- Instruments from various parts of the world (djembes, claves, conga, etc.)
- Props (puppets, hoops, scarves, etc.)
- Recorded or streaming music (cds, ipods, etc.)
- Books (story songbooks, sing-along books, etc.)
- Other (please describe): \_\_\_\_\_

What do you hope to accomplish in the *Musical Lives* Project this semester? (check all that apply, circle your top desire):

- Learn to play an instrument (ukulele, piano, guitar, other)
- Improve my singing voice
- Master songs that I can sing in my classroom
- Develop my ability to make adaptations for my students with disabilities and other special needs in music activities
- Learn more about musical dramatic play and musical storytelling
- Have fun making music in my classroom
- Have fun making music with my colleagues
- Learn more movement games and activities
- Incorporate more family musical activities
- Use recorded music in my classroom more effectively
- Other (please describe): \_\_\_\_\_

If you indicated above that you would like to learn how to play an instrument, what is the approximate amount of time per week that you may be able to spend practicing on your own? \_\_\_\_\_

During what time of the school day would music be most beneficial for your children?

- Circle time
- Rest Time
- Specific Music Time
- Interspersed with other activities
- Other (please describe): \_\_\_\_\_



## Instruments in the Classroom

*(Check which best applies to the use of any kind of music instrument in your classroom).*

	Daily	Weekly	Once a Month	Hardly Ever	Never or Not Applicable
<b>I play music instruments in class.</b>					
<b>I plan music experiences for the children that include music instruments.</b>					
<b>I use a music instrument to accompany myself when I sing for the children.</b>					
<b>The children play instruments as a group to accompany their singing or other activities.</b>					
<b>The children have opportunities to explore the sounds of music instruments and engage in free play with instruments, alone or with other children.</b>					
<b>The children have opportunities to play and/or to explore non-traditional musical instruments (kitchen utensils, items in the room, etc.).</b>					

If you play instrument(s) in class, please indicate which instrument(s):

---

The children's favorite music instruments to play in the classroom are (if applicable, please list two or three):

---

The children in my classroom enjoy playing music instruments.

Not at all                      Very Much  
 1   2   3   4   5                      *n/a: does not apply in my classroom*

The children in my classroom enjoy making sound with, or playing, non-traditional musical instruments (utensils, furniture, etc.).

Not at all                      Very Much  
 1   2   3   4   5                      *n/a: does not apply in my classroom*

If you play instruments, how confident are you about playing percussion (sticks, shakers, etc.) instruments in your classroom?

Not at all                      Very Confident  
 1   2   3   4   5                      *n/a: does not apply in my classroom*

How confident are you about playing pitched instruments (guitar, ukulele, piano, xylophone, etc.)?

Not at all                      Very Confident  
 1   2   3   4   5                      *n/a: does not apply in my classroom*

## Music and Movement in the Classroom

*(Check which best applies).*

	Daily	Weekly	Once a Month	Hardly Ever	Never or Not Applicable
<b>I lead planned music and movement activities.</b>					
<b>I engage/join in the children's independent music and movement activities of their own design.</b>					
<b>I use recorded music to accompany movement activities.</b>					

If you use recorded music for movement activities, what types of recordings do you typically use? (Check all that apply)

- Instrumental (no words) music.
- Music with movement instructions that tell the children what to do (e.g. "The Hokey Pokey", or "Stop and Go")
- Music with words, but no specific instructions, where children are free to respond with movement as they like.
- Other (please describe): \_\_\_\_\_

*(Check which best applies).*

	Daily	Weekly	Once a Month	Hardly Ever	Never or Not Applicable
<b>I use live music (voice, instruments, etc.) to accompany movement activities (I perform or ask another adult to provide accompanying music for the children's movement activity).</b>					

The children in my classroom enjoy music and movement activities.

Not at all                      Very Much  
 1   2   3   4   5                      *n/a: does not apply in my classroom*

If you have music and movement in your classroom, how confident are you about leading these activities?

Not at all                      Very Confident  
 1   2   3   4   5                      *n/a: does not apply in my classroom*

# Recorded Music Listening in the Classroom

*(Check which best applies).*

	Daily	Weekly	Once a Month	Hardly Ever	Never or Not Applicable
<b>I play recorded music in my classroom as part of planned music listening activities during circle time, or other designated music time.</b>					

If you use recorded music in listening activities, what genre(s) of recorded music do you typically use? (Check all that apply)

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li><input type="radio"/> Children's music</li> <li><input type="radio"/> Classical</li> <li><input type="radio"/> Rock</li> <li><input type="radio"/> Pop</li> <li><input type="radio"/> Hip Hop</li> <li><input type="radio"/> Folk</li> </ul> | <ul style="list-style-type: none"> <li><input type="radio"/> World Music</li> <li><input type="radio"/> Jazz</li> <li><input type="radio"/> Electronic</li> <li><input type="radio"/> Ambient</li> <li><input type="radio"/> Other (please specify): _____</li> </ul> |
|---|---|

My favorite recordings for planned music listening experiences (if applicable, please list two or three):

---

If you have planned music listening in your classroom, how confident are you leading these activities?

Not at all                      Very Confident  
 1   2   3   4   5                      *n/a: does not apply in my classroom*

*(Check which best applies).*

	Daily	Weekly	Once a Month	Hardly Ever	Never or Not Applicable
<b>I play recorded music in my classroom as part of other non-music-making types of activities (background music, during snack time, rest time, work time, etc.).</b>					

If you play recorded background music, what genre(s) of recorded music do you typically use? (Check all that apply)

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li><input type="radio"/> Children's music</li> <li><input type="radio"/> Classical</li> <li><input type="radio"/> Rock</li> <li><input type="radio"/> Pop</li> <li><input type="radio"/> Hip Hop</li> <li><input type="radio"/> Folk</li> </ul> | <ul style="list-style-type: none"> <li><input type="radio"/> World Music</li> <li><input type="radio"/> Jazz</li> <li><input type="radio"/> Electronic</li> <li><input type="radio"/> Ambient</li> <li><input type="radio"/> Other (please specify): _____</li> </ul> |
|---|---|

My favorite recordings for background listening experiences (if applicable, please list two or three):

---

Does your classroom have a dedicated listening area where children can listen to music through headphones? YES / NO

The children in my classroom enjoy music listening activities:

Not at all                      Very Much  
 1   2   3   4   5                      *n/a: does not apply in my classroom*

If you play recorded music in class, how confident are you choosing music to play?

Not at all                      Very Confident  
 1   2   3   4   5                      *n/a: does not apply in my classroom*

# Music Discussion in the Classroom

*(Check which best applies).*

	Daily	Weekly	Once a Month	Hardly Ever	Never or Not Applicable
<b>I lead or engage students in discussions about music that they have just heard, or that they prefer*.</b>					
<b>I give students choices of words that they can use to describe music that I will play recordings of, or that I will perform for them.</b>					

If you lead music discussions, what genre(s) of music do you typically play (recorded or performed live) for these activities? (Check all that apply).

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li><input type="radio"/> Children's music</li> <li><input type="radio"/> Classical</li> <li><input type="radio"/> Rock</li> <li><input type="radio"/> Pop</li> <li><input type="radio"/> Hip Hop</li> <li><input type="radio"/> Folk</li> </ul> | <ul style="list-style-type: none"> <li><input type="radio"/> World Music</li> <li><input type="radio"/> Jazz</li> <li><input type="radio"/> Electronic</li> <li><input type="radio"/> Ambient</li> <li><input type="radio"/> Other (please specify): _____</li> </ul> |
|---|---|

My favorite recordings or songs for music discussion are (if applicable, please list two or three):

\_\_\_\_\_

*(Check which best applies).*

	Daily	Weekly	Once a Month	Hardly Ever	Never or Not Applicable
<b>My students describe music in their own words, music that they have just heard or music that they know, on their own and/or amongst themselves.</b>					
<b>I join in, or engage with, my students' independent music discussions.</b>					

The children in my classroom enjoy music discussion activities:

Not at all                                      Very Much  
 1    2    3    4    5                      *n/a: does not apply in my classroom*

If you do lead music discussion activities, how confident are you doing so?

Not at all                                      Very Confident  
 1    2    3    4    5                      *n/a: does not apply in my classroom*



**Musical Lives  
UT Child Development Centers  
Fall 2016**

**Draft Individual Learning Plan**

**Teacher:**

**Goals:**

1. Playing ukulele:
  - Learn seven chords and songs to go with them
2. Music and movement games:
  - Learn three new age-appropriate movement games for your class, and how to facilitate them seamlessly
3. Instrument songs and games:
  - Learn three new age-appropriate instrument songs/activities for your class, and how to integrate instruments seamlessly
4. Sing-a-long songs:
  - Learn five new sing-able songs that you can lead with your class
5. Adaptations for students with disabilities or other needs:
  - Learn music activities and tools to support full class participation in music
6. Family music activity for your class:
  - Learn three music activities that work well with visiting grown-ups
7. Recorded music activities:
  - Learn three recorded music activities, using new and varied music
8. Musical dramatic play:
  - Learn three storytelling with music activities

**APPENDIX F: INDIVIDUAL LEARNING PLAN**

**UTCDC  
Musical Lives – Fall 2016  
Personal Goals and Self-Evaluation  
Teacher: \_\_\_\_\_**

➔ = Still working on it...  
✓ = I did it!

Areas of Focus	Tasks	Week 1: Sept 26-30	Week 2: Oct 3-7	Week 3: Oct 10-14	Week 4: Oct 17-21	Week 5: Oct 24-28	Week 6: Oct 31- Nov 4	Week 7: Nov 7-11	Week 8: Nov 14-18	Week 9: Nov 28- Dec 2
Playing Ukulele	1. C, playing song that uses C									
	2. add F, playing song that uses C & F									
	3. add G, playing song that uses C, F, & G									
	4. add Dm, playing song that uses F and Dm									
	5. add Am, playing song that uses C, G, F, and Am									
	6. add D and A, playing song that uses D, G, and A									
Music and Movement Games	1. Song One:									
	2. Song Two:									
	3. Song Three:									
Instrument Songs and Games	1. Song One:									
	2. Song Two:									
	3. Song Three:									
Sing-a-Long Songs	1. Song One:									
	2. Song Two:									
	3. Song Three:									
	4. Song Four:									
	5. Song Five:									
Thanksgiving Week - No Musical Lives Class										

## APPENDIX G: LUNCH-AND-LEARN AGENDA SAMPLE

### Musical Lives UT Child Development Centers Fall 2016 *Lunch-and-Learn #1*

#### **Welcome!**

- Djambo (Swaziland)

*D'jambo, D'jambo sanna d'jambo  
D'jambo, D'jambo atoto d'jambo  
Hello, Hello Everybody, Hello  
Hello, Hello Everybody, Hello*

#### **Individual Plans**

#### **Ukulele**

- Senwa De Dende (Ghana)

*Senwa de Dende, Senwa  
Senwa de Dende, Senwa  
Senwa de Dende, Senwa de Dende, Senwa de Dende, Senwa*

#### **Instrument Songs – Sticks**

- Play and Play (USA)

*Play and play, play and play, play and play until the music stops...  
Play and play, play and play, play and play until the music stops...*

#### **Recorded Music**

- *The Elephant*, from *Carnival of the Animals* by Camille Saint-Saëns

#### **Goodbye**

- Hambane Kahle (Zulu, Southern Africa)

*Hambane kahle, Hambane kahle,  
Hambane kahle, Hambane kahle,  
Go well and safely, go well and safely,  
Go well and safely, Hambane Kahle*

[www.musicalives-utcdc.blogspot.com](http://www.musicalives-utcdc.blogspot.com)



Describe the helpfulness of each of aspect of the *Musical Lives* program (Circle the answer that best applies)

	<i>Not at all helpful..... Very helpful</i>				
Observing Caroline teach my children	1	2	3	4	5
Co-teaching with Caroline	1	2	3	4	5
Teaching on my own, or with my classroom colleague	1	2	3	4	5
The website	1	2	3	4	5
The lunch-and-learn sessions	1	2	3	4	5
The handouts	1	2	3	4	5
Getting verbal feedback on my teaching	1	2	3	4	5
Other (please describe)	1	2	3	4	5

What is (are) your favorite song(s) or activity(ies) from the *Musical Lives* program? (please list one for each category)

*Singing:* \_\_\_\_\_  
*Ukulele (if applicable):* \_\_\_\_\_  
*Movement:* \_\_\_\_\_  
*For Children to Play Instruments to:* \_\_\_\_\_  
*Musical Dramatic Play/Storytelling (if applicable):* \_\_\_\_\_  
*Recorded Music Listening/Discussion if applicable):* \_\_\_\_\_  
*Music and Pre-Literacy (books or picture songs, if applicable):* \_\_\_\_\_

What is (are) the most useful song(s) or activity(ies) from the *Musical Lives* program? (please list one for each category)

*Singing:* \_\_\_\_\_  
*Ukulele (if applicable):* \_\_\_\_\_  
*Movement:* \_\_\_\_\_  
*For Children to Play Instruments to:* \_\_\_\_\_  
*Musical Dramatic Play/Storytelling (if applicable):* \_\_\_\_\_  
*Recorded Music Listening/Discussion if applicable):* \_\_\_\_\_  
*Music and Pre-Literacy (books or picture songs, if applicable):* \_\_\_\_\_

What is(are) your children's favorite song(s) or activity(ies) from the *Musical Lives* program? (please list one for each category)

*Singing:* \_\_\_\_\_  
*Ukulele (if applicable):* \_\_\_\_\_  
*Movement:* \_\_\_\_\_  
*For Children to Play Instruments to:* \_\_\_\_\_  
*Musical Dramatic Play/Storytelling (if applicable):* \_\_\_\_\_  
*Recorded Music Listening/Discussion if applicable):* \_\_\_\_\_  
*Music and Pre-Literacy (books or picture songs, if applicable):* \_\_\_\_\_

## The Children's Experiences

Please respond to the following questions about the children's experiences in your class. (Circle the answer that best applies).

The children in my classroom:	<i>Not at all.....Very much</i>					
Enjoy group singing	1	2	3	4	5	n/a
Sing beautifully	1	2	3	4	5	n/a
Enjoy playing music instruments	1	2	3	4	5	n/a
Enjoy playing,non-traditional musical instruments (utensils, furniture,...)	1	2	3	4	5	n/a
Enjoy music and movement activities	1	2	3	4	5	n/a
Enjoy music listening activities:	1	2	3	4	5	n/a
Enjoy music discussion activities	1	2	3	4	5	n/a
Cooperate and participate appropriately in music activities	1	2	3	4	5	n/a

Do you feel that every child in your class is being included in music activities, to the extent that they would like to be?

YES / NO (please comment): \_\_\_\_\_

## The Teachers' Experiences

Please respond to the following questions about your own experiences teaching music in class. (Circle the answer that best applies).

I am:	<i>Not at all.....Very confident</i>					
Confident when singing accompanied (w/o recordings or instruments)	1	2	3	4	5	n/a
Confident when singing unaccompanied (w/ recordings or instruments)	1	2	3	4	5	n/a
Confident playing percussion instruments (sticks, shakers, etc.)	1	2	3	4	5	n/a
Confident playing pitched instruments (ukulele, xylophone, etc.)	1	2	3	4	5	n/a
Confident leading music and movement activities	1	2	3	4	5	n/a
Confident leading musical dramatic play activities	1	2	3	4	5	n/a
Confident leading music listening activities	1	2	3	4	5	n/a
Confident choosing recorded music to play	1	2	3	4	5	n/a
Confident leading music discussion activities	1	2	3	4	5	n/a
Confident in my ability to make adaptations for my students with disabilities and other special needs	1	2	3	4	5	n/a
Confident in my overall music ability	1	2	3	4	5	n/a

(Check which best applies).

	Daily	Weekly	Once a Month	Hardly Ever	Never or n/a
I listen to music outside of work (at home, in the car, etc.)					
I sing outside of my classroom, at home, etc.					
I play a musical instrument outside of my classroom, at home, etc.					
I get together with friends to sing or play music (read through music, or jam)*					
I compose songs/music on my own (not necessarily written down) *					
I attend live music events (concerts: outdoor or in auditoriums, musicals, opera...)					

**APPENDIX I: EARLY CHILDHOOD TEACHER MUSICIANSHIP MEASURE**

**Early Childhood Teacher Musicianship Measure**

**Participant Name or Number:**

**Date of Recording:**

**Program Week:**

**Piece:**

**Performance Independence (Circle One):** Independent / Not Independent

	None of the time (1)	Some of the time (2)	Half of the time (3)	Most of the time (4)	All of the time (5)	n/a: Not applicable or Not apparent	Total
Singing:							
Sang accurately (correct notes, rhythms)							
Sang in tune/maintains tonal center							
Sang in correct/matching key to instrument							
Sang with expression: uses dynamics, phrases, articulation as appropriate							
Knew words to song							
Smiled							
Singing Mean Score:							
Instrument Playing:							
Played correct chords for song							
All strings vibrated with clear tone							
Changed chords without pause							
If missed chord, continued without pause							
Maintained steady pulse in right/strumming hand							
Played while looking up from hands							
Looked at the children during song							
Introduction in same tempo as song, if applicable							
Played loudly enough to be heard throughout							
Instrument Playing Mean Score:							

**Notes:**

## References

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