DEVELOPMENTAL PRESCHOOL MUSIC EDUCATION: A PROPOSED RATIONALE, PHILOSOPHY AND 12-WEEK CURRICULUM FOR 4-YEAR-OLD CHILDREN

By

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ABSTRACT

Numerous curricula for preschool music education have been developed in the past two decades. For the most part, however, these have not incorporated important evidence from three disciplines which has important implications for how the music education of preschool children should be approached. The first of these is the field of developmental neurobiology, which has provided relevant information concerning early learning and experience. The second is the research pioneered by Jean Piaget, whose insights into cognitive development bear heavily on curriculum planning for preschool music education. The third is research in musical development, which indicates what skills and behaviors can be expected of preschool children in a musical setting.

The goal of this thesis is to demonstrate (a) why an understanding of the major findings from these fields is important to the formulation of a music education program for preschool children; and (b) how this understanding can and should impact on the curricular choices made for the musical education of preschool children. To this extent, a series of developmental and musical objectives for the music education of preschool children, specifically 4-year-olds, have been formulated to serve as a theoretical and practical foundation on which to develop and choose musical activities which are appropriate for this age group. The educational and practical value of each of these activities was tested with a group of 4-year-old children during a 12-week study carried out

at the University of British Columbia Child Study Center. The activities which adequately demonstrated this value were then organized into a 12-week music curriculum for 4-year-old children.

Four conclusions are made in this thesis. The first of these is that music education should begin early in life in order to influence the general learning patterns necessary for the development of musical skill. The second conclusion is that early exposure to music will be most effective when the activities chosen are complex and stimulating and allow for interaction with numerous musical stimuli on a variety of different levels. The third conclusion is that developmentally appropriate musical activities may make an important contribution to the enrichment of the learning environment during the preschool years and may subsequently enhance sensory, motor, verbal and nonverbal, social and creative thinking skills. Finally, it was concluded that preschool music education will be most effective when musical tasks reflect the limitations of children's cognitive development.

Supervisor Approval

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Dr. Allen E. Clingman

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DEDICATION

To my husband, Glen and my family
for the advice, support and encouragement
which have made this possible

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CHAPTER I
INTRODUCTION

Increasing numbers of preschool children are entering child care facilities across Canada. For example, in 1982, 96,242 children between the ages of 3 and 5 were enrolled in day care facilities across the country (Health and Welfare, 1982). By 1986, this number increased to 134,826 children (Health and Welfare, 1986). According to Health and Welfare Canada (1986), there is no indication that this enrollment will decline any time soon. These statistics are interesting when compared to evidence that the preschool years are a period of rapid knowledge acquisition (Bloom, 1964) and a time during which the learning environment will have its most profound impact on the development of normal cognitive, physical and social behavior (Kandel, 1985; Jacobson, 1979; Kuffler & Nicholls, 1976; Kolb & Wishaw, 1980; Scott, 1962; Lund, 1978).

Many music educators are concerned that music play a prominent role in the learning environment during this period and that the nature of

these early musical experiences enable growing numbers of preschool children to develop positive attitudes toward music and gain better understanding and skills for expressing themselves with music. As a result of this concern, numerous preschool music curricula have been developed over the past two decades. However, an examination of these curricula indicates that they are somewhat limited in scope in three important areas.

First, many of these curricula allude to evidence that the preschool years are critical ones for development (Biasini, 1970; Andress, Heimann, Rinehart & Talbert,1973; Aronoff, 1974; Greenberg, 1979; Choksy, 1981; Tse Perron, 1987; Sams, 1988). For the most part, however, these curricula do not do not demonstrate an adequate understanding of the research which supports this theory. In addition, there appears to have been little attempt to incorporate this evidence into planning for preschool music education. Second, many of these preschool music programs claim to be "developmental", in that they are based on evidence from learning theory and other areas of developmental psychology (Biasini, 1970; Aronoff, 1974; Greenberg, 1979; Andress,1980, 1984; Gerber, 1982; Woods, 1982; Nye, 1983; Sams, 1988). However, the musical activities suggested in many of these curricula do not reflect a thorough understanding of the information provided by these research areas and its full implications for preschool music. Finally, while most of these curricula refer to the importance of understanding differences in musical ability, interest and learning style

between preschool children of different ages (Greenberg, 1972; Frega, 1982; Woods, 1982; Regner, 1982; Zeitlin, 1982; Andress,1984, 1985; Krokfors & Kuosmanen, 1987; Brink Fox, 1987; Sams, 1988), many have overlooked evidence from the field of musical development which provides insight into these differences.

This failure to seriously consider and incorporate the information from these three areas of research represents a void in the area of preschool music education. It indicates that a comprehensive curriculum for preschool children which encompasses a realistic grasp of the importance of early learning and experience, an understanding of cognitive development during the preschool years and an awareness of musical learning processes and skill levels among preschool children of varying ages is lacking.

STATEMENT OF PURPOSE

The purpose of this thesis is to demonstrate how an understanding of the evidence from these three areas can enhance preschool music education, by developing a comprehensive 12-week curriculum which embraces the major findings from each of them. This curriculum will be focused specifically on 4-year-old children, as it has been demonstrated that considerable differences in motor skills, abilities, interests (Piaget, 1969) and musical aptitude (Andress, 1984; Frega, 1982; Warrener, 1985) exist between preschool children of varying ages. This curriculum will be planned within a 12-week time frame for two

reasons. First, it has been suggested that a 10-12 week plan provides an effective starting point for curriculum development on a larger scale (Greenberg, 1972; Bridges, 1987; Brink Fox, 1987). Second, this was the time allotted to the researcher by the University of British Columbia Child Study Center to carry out this study.

This curriculum will be distinguished from other preschool music programs by encompassing the major findings of three research areas which are: (1) developmental neurobiology; (2) cognitive psychology; and (3) musical development. The implications of this research for preschool music education will be examined in detail and will be incorporated into the planning and execution of the curriculum being proposed. Evidence from these areas will provide reliable support for a rationale and philosophy of preschool music education and will serve as a theoretical and practical foundation on which to make curricular decisions appropriate for the age group being considered. What follows is a brief definition and explanation of each of these areas.

DEFINITIONS AND/ OR EXPLANATIONS OF RESEARCH AREAS

DEVELOPMENTAL NEUROBIOLOGY

The preschool years represent a very important period for learning and development (Kuffler & Nicholls, 1976; Lund, 1978; Jacobson, 1979; Kandel, 1985). Research in the area of developmental neurobiology indicates that the early years of development represent the period of most rapid neuronal growth (Greenough, Black & Wallace, 1987;

Fishburne). What is perhaps more significant is that during this period, experience will have a profound and lasting impact on normal brain development and the behavior which results from it (Kandel, 1985). This research has shown that a "sensitive" or "critical" period exists during this period of rapid neuronal development which may be likened to a brief opening of a window, with the environment having the most impact while this window is open (Bateson, 1979). During this sensitive period, learning experiences will have more influence on behavioral development than at any other time (Kuffler & Nicholls, 1976; Lund, 1978; Jacobson, 1979; Kolb & Wishaw, 1980; Kandel, 1985). The implications of this research for preschool music education will be explored in terms of when the optimal period for beginning musical education occurs, how activities should be organized and planned for the most effective development of musical skill and how complex musical activities can be used to contribute to general development in 4-year-old children. The results of this discussion will provide a rationale for the curriculum being formulated.

COGNITIVE DEVELOPMENT

Cognition is defined as the process of knowing in the broadest sense (Guralink, 1980). The research of Jean Piaget is one of the first and most comprehensive attempts to understand this process in children (1969, 1976). His research into the phenomenon of how intelligent behavior such as thought, language and knowledge gradually evolve have provided many valuable insights into the behavior and cognitive

development of preschool children (Wadsworth, 1984). These insights will be discussed in terms of their implications for preschool music education. This discussion will explore how preschool music education should be approached in terms of the cognitive behavior characteristic of 4-year-old children and how appropriately planned musical experiences may contribute to or enhance the development of this behavior. The results of this discussion will provide the philosophical foundation for the curriculum being formulated.

Musical Development

Musical development can be described as the development of musical aptitude or potential to learn musical skills (Shehan, 1986). Over the last 25 years, there has been an increasing amount of systematic investigation into this development in young children. This research, as it pertains to musical behavior in 4-year-old children, will be reviewed in some detail, specifically in the areas of listening, singing and vocal development, rhythm and movement and creativity. The results of this review will provide a pedagogical basis on which to choose activities for the curriculum being formulated and present suggestions as to how they should be taught.

These three areas of investigation will make important contributions to developing a reliable foundation on which to base curricular decisions for a preschool music program. Although each of these areas is fundamental to any music program, no single curricular

theory or program could be found which encompassed the most important implications of these areas in a comprehensive manner. The purpose of this thesis, therefore, is to fill this void by developing a 12-week curriculum for 4-year-old children which is based on these ideas and to subsequently demonstrate the importance of providing appropriately planned musical experiences for preschool children.

CHAPTER II

A RATIONALE FOR PRESCHOOL MUSIC EDUCATION

Several preschool music educators have speculated about the importance of providing musical experience in the preschool years (see for example Biasini, 1970; Andress et al, 1973; Aronoff, 1974; Greenberg, 1979; Sams, 1988). Some of these have suggested that the early years of development represent the optimum period in which to provide children with opportunities for musical learning. For example, Andress et al (1973) have written:

> Concern has been raised in recent years that we well may be neglecting the young child's intellectual growth at the most critical stage of his development - those years from age three to five. What role music plays in the life of this child and what impact his early experiences have in shaping his lifetime musical behaviors have become primary concerns of the music educator (p. 1).

Similarly, Frega (1982) has written: "Where and when should the process of [music education] begin? As early as possible - during the preschool stage [as] the changes occurring during a child during this stage are various and remarkable" (p. 40).

There are some limitations to these speculations, however. The

most serious of these is that there has not be any thorough investigation of the evidence which supports them. In fact, in many cases, no evidence is cited to support these speculations. In those instances where it is, the evidence is often weak and somewhat questionable. In addition, there has been little effort to incorporate these speculations into planning for preschool music education. The purpose of this chapter is to review the research which supports these speculations, examine its implications for preschool music education and make suggestions for the implementation of the findings in preschool music programs.

Most of this research has been done by individuals in the field of developmental neurobiology. These researchers have demonstrated that the extended period of infancy reflects the importance of incorporating enormous amounts of information into the brain (Greenough et al, 1987). It has been estimated that, even within the significantly smaller brain of the rat, approximately 250 000 connections between nerve cells are formed each second during the first month of postnatal development (Schuz, cited in Greenough et al, 1987). Greenough et al write that, "these connections, at least those that persist, comprise the combination of intrinsic and experiential information, recorded in neural circuitry, upon which behavior is based" (p. 539).

Studies into human brain growth provide support for the existence of a period of rapid neurological growth in early development (Fishburne, 1985). These studies suggest that the human brain grows in neither a

linear nor a proportional way, but rather appears to have periods in which growth is very rapid and periods in which it is very slow with little or no perceptible change. The following summarizes a breakdown of average brain growth with age:

TABLE 1
SUMMARY OF HUMAN BRAIN DEVELOPMENT

STAGE	AGE	BRAIN VOLUME (cm^3)
Fetus	6 months	$60cm^3$
Birth	9 months	$300\text{-}500cm^3$
Infant	1 year	$600\text{-}700cm^3$
Child	3 years	$1200cm^3$
Adult	29 years	$1350\text{-}1400cm^3$

(adapted from Fishburne, 1985).

These figures indicate that neurological development goes through varying growth periods in humans, with the most rapid growth occurring during early childhood. A group of studies on stability and change in human growth and development carried out by Benjamin Bloom between 1959 and 1964 provides support for this data. In these studies Bloom found that 80% of all learning at age 17 has been acquired by 8 years of age, and 50% of that by the age of 4. This led him to conclude that the ages of 4 and 5 are possibly the most crucial years for learning.

All of this research becomes even more interesting when compared to other research findings in neurological plasticity, or the ability of the brain to change in various ways to compensate for environmental influences (Kolb & Wishaw,1980). Such studies suggest that a "sensitive" or "critical" period exists during this period of rapid neural development and that during this stage of development, the development of neurological structures is more dependent on interaction with the environment (Kuffler & Nicholls, 1976). It also indicates that various types of experience and interaction with the environment can change neurological performance and strategies. (Rosenwig, Krech, Bennet & Diamond, 1962). These studies have led researchers to believe that while, "the structure of the brain is, to an important degree, specified by genetic and developmental processes, the pattern of interconnections between neurons also depends on experience" (Kandel, 1985, p. 757).

Developmental neurologists have indicated that the early years of development represent a window of opportunity wherein environmental experience can and will change the physical structure of the brain, bringing about inevitable changes in both immediate and subsequent behavior (Bateson, 1979; Kolb & Wishaw, 1980). Researchers interested in testing these hypotheses have investigated the effects of different types of impoverished environments on various behavioral characteristics. They have found that sensory deprivation has a powerful effect on perceptual and social development in the early years. Spitz (1945, 1946) compared the development of infants raised in two

different environments. One of these environments deprived the infants of sensory and social stimulation. Spitz concluded that severe social and sensory deprivation in early childhood has catastrophic consequences on later development. Similar results have been found in studies by Geber (1958), Singh & Zingg (1940), Dennis (1960), and Harlow (1971).

A 1964 study by Diamond, Krech and Rosenwig found that varying kinds of experience bring about physical changes in neurological structures. This study revealed significant neocortical differences between rats reared in enriched and impoverished environments. The "enriched" rats' depth of cortex (an external layer of the brain which has 4 - 6 layers of cells) exceeded that of the deprived rats by 6.2% in the visual region and 3.8% in the somatosensory region. Additional research (Kolb & Wishaw, 1980) has investigated the effects of the environment on brain size in various animal models, and have found as much as a 35% reduction in animals reared in deprived environments. In addition to these anatomical changes, enriched animals tend to perform better than their impoverished counterparts on a number of tests of learning and memory. The effect of the environment on brain development seems to be the most dramatic if enriched experience is gained in early life.

This research clearly indicates that neural development can be disrupted by abnormal sensory input during the sensitive period. Conversely, it suggests that performance can be sharpened by complex or enhanced sensory input (Kuffler & Wishaw, 1976). While this research

places considerable emphasis on the role of the environment on neural development, there is no question that it is genetic material which provides the basic organization of the nervous system (Kandel, 1985). However, it has consistently been shown that there is a secondary system of regulation which influences neural development. Lund (1978) suggests that, in a gross behavioral sense, this regulation mechanism operates to program an organism's response to its environment such that stimuli experienced frequently in early stages of development become the ones to which it responds most effectively later. This response to environmental influences is greatest in man, less in other mammals and least in submammals (Jacobson, 1978).

Implications For Preschool Music Education

This research has many implications for preschool music education which up to now have not been seriously considered by preschool music educators. The most obvious of these is that musical experiences should be introduced into the child's learning environment early in life, and preferably before entering school. According to the research discussed above, the years before a child begins grade one (6-years-old) represent the most critical period for brain development. The neural plasticity which characterizes this period increases the extent to which the learning environment influences the development of various behaviors (Scott et al, 1974; Greenough et al, 1987). This suggests that the earlier a child is immersed in a musical environment, the more profound impact these experiences will have on his/her musical

development. According to this, the preschool years represent the optimal time to begin the development of musical skills in children. This is not to suggest that a child who does not begin his/her musical training during the preschool years will never develop adequate musical skills; there is an abundance of anecdotal information which would challenge such a position. Instead, what is being proposed is that the preschool years represent a time during which general learning patterns can be influenced by the educational programs in which children participate. Early exposure to appropriately planned musical stimuli during this sensitive period will enable children to develop skills which will have more of an impact on the development of various musical behaviors than such experiences might in subsequent years.

Another important implication of this research for preschool music education is the emphasis it places on the role of experience for normal brain development. It has been shown that the environment will influence the development of various neurological structures during an organism's sensitive period (Diamond et al, 1964; Hubel, Weisel & LeVay, 1977; Greenough et al, 1987) which suggests that enriched learning experiences during the preschool years will have a positive influence on development. For preschool music education, this indicates that learning experiences should be varied and complex, allowing the child to experience and experiment with numerous musical stimuli. Participation in a complex musical environment of this nature will have the greatest impact on musical development.

From a more general perspective, this research supports that idea that music be should included in the educational setting of preschool children as a means of enriching the learning environment. This is not intended to suggest that the development of musical skills be of secondary importance in this learning environment, but rather, as Whiting (1975) posits:

> This would not mean that we do not teach specific skills, but rather that we would be less concerned with the outcome and more with the contribution such experience was making to the development of the child in terms of the development of abilities (cited in Fishburne, 1985, p. 14).

Complex musical experiences during the preschool years may make an important contribution to the general development of children. By its very nature, music is a complex activity which requires that the participants involved incorporate various and different skills which may help to create an enriched and complex learning environment during the critical period. In order to discuss what kind of contribution music could make to this type of environment, it is necessary to define some of its distinctive characteristics and the role that each could play in development during the sensitive period. For the purpose of this discussion, these characteristics have been divided into four areas: (1) sensory (including auditory, visual and somatosensory); (2) motor; (3) social; and (4) language.

THE SENSORY NATURE OF MUSIC

One of the distinguishing characteristics of music is that it is a sensory activity; participation in musical activities requires audition, vision, and in some cases, touch. There is little question that a critical period for these sensory skills exists, as the above review of various studies has indicated. They have also shown that although many aspects of sensory development are genetically determined, experience during the critical period can either enhance or damage development of this system, depending on what type of experience it is.

One type of sensory stimulation a child experiences during musical activity involves the auditory cortex. What is important about this auditory experience is that it is not randomly organized sound that the child is hearing. Music is made up of tones of varying frequency and rhythmic duration. Although there are few limitations to the manner in which these sounds can be arranged, for the most part they are presented in a patterned mode which the listener can easily comprehend. According to Kandel (1985), it is only when it is stimulated by patterned sound that the auditory cortex is capable of initiating action. Tees (1967) has found that rats deprived of patterned auditory stimulation during the critical period demonstrate marked behavioral deficits in responsiveness to auditory stimulation.

The importance of patterned sound to auditory development represents one area where musical experiences could play a role in the development of the sensory system during the critical period. A preschool music curriculum which provides the learner with many opportunities to hear and experiment with various melodic and rhythmic patterns may stimulate auditory development to some degree. Based on studies into auditory development and the role that experience plays in it (Tees, 1967; Clopton & Winfield, 1976), this is a hypothesis that is worth testing in future research.

Visual stimulation can also be experienced during musical activity. The patterned sounds of which music is comprised can be represented visually in various ways. The most common type of visual representation of melodic patterns is staff notation. However, melodic patterns can be visually represented with other objects which denote variations in pitch (for example, see chapter V, lesson nine). Rhythmic patterns can be notated using traditional note values, but other objects could be used to represent different rhythms as well. Whatever the means of visually representing a melodic or rhythmic pattern, a visual pattern would result. Children involved in musical activities can be instructed to recognize a variety of melodic and rhythmic patterns. In addition, they can learn not only the durational symbols which are traditionally used to represent these patterns, but can also be encouraged to explore new ways of visually representing them. This visual stimulation would serve to reinforce auditory patterns which are

being learned or have previously been learned.

As with the auditory system, it has been shown that patterns and forms play an important role in the development of the visual system (Kuffler & Nicholls, 1976; Kandel, 1985). Von Senden (cited in Kuffler & Nicholls, 1976) has shown that it is "form vision" (patterns) and not light that is the most important stimulus required to preserve the normal responses of cortical cells already present in the visual cortex at birth. Additional studies of the developing visual system of animals have supported this data (Wilson, Webb & Sherman, 1976; Lund, 1978) and confirm the role that experience plays in the development of the visual system. It is posited that experiences in music during the preschool years may contribute to this development if they include opportunities to learn about and experiment with music as it is visually represented. The role that these patterns might play in the development of the sensory system during the critical period is worthy of further investigation.

The somatosensory system (sense of touch) is another area of the sensory system which is often utilized in musical activity. This system allows individuals to perceive and recognize objects through touch. This sense of touch is mediated by nerve endings in the skin which serve as touch receptors unevenly distributed over the entire body, resulting in some areas which are more sensitive than others (Hughes & Noppe,1985). The tips of the fingers, for example, are more sensitive than the backs of

the hands. Although there have not been many large-scale investigations regarding a critical period for the somatosensory system (Kuffler & Nicholls,1976), there is some evidence which emphasizes the importance of experience in the development and maintenance of this system (Woolsey & Van der Loos, 1970; Van der Loos & Woolsey, 1973). These studies suggest that the neuronal architecture of the somatosensory system is flexible and sensitive to experience. They further indicate that tactile experiences may enhance the functioning of this system.

A preschool music program could provide various opportunities for tactile manipulation and experience. These activities could include experiences in body percussion in which children respond to music through stamping, patting, clapping and snapping. Tactile stimulation could also be achieved through various group activities in which children practice somatosensory responses with others. Slapping hands with partners to the beat of a song is an example of such a response. More refined group tactile responses could be experienced as the children's sensitivity to music develops. Other tactile experiences could include experimentation with a variety of pitched and non-pitched musical instruments. This experimentation could demonstrate that the intensity of a touch will effect the resultant sound of an instrument. For example, if a triangle is hit with force, the child will discover that a loud sound results. Conversely, if hit gently, the corresponding sound will be a quiet one.

These suggestions represent a small sample of activities which could be used to stimulate the somatosensory system in a preschool music program. A variety of other musical activities could also be employed in this manner with preschool children. Based on the studies which indicate that experience plays an important role in the development of the somatosensory system, it is posited that such experiences would not only enhance musical development in children but may also make a contribution to their somatosensory development. Although this hypothesis remains to be tested, it represents an interesting area of investigation for both the fields of music and developmental psychology.

Motor Development

Motor development is another domain in which musical activities play a part. When testing rhythmic ability in children, Moog (1976) found that preschoolers have a tendency to respond to musical stimuli through movement. He found that these movements appear at around 6 months of age and become increasingly refined up to the age of 6. This is an indication of the importance of motor involvement in musical experiences at the preschool level. It also implies that motor skills are developing concurrently with musical skills during preschool musical experiences. For example, when a 4-year-old child is learning to walk steadily to the beat of a drum, he/she is also developing the ability to move smoothly at various speeds. Similarly, when playing a singing game wherein a change of phrase in the music signals a change of

direction, he/she is practicing the skills of stopping, starting and changing direction. Playing an instrument not only gives a child the opportunity to develop a variety of musical skills, but also allows him/her to develop hand-eye coordination and increasingly precise fine motor skills. Singing provides an opportunity for the child to develop and refine control over his/her vocal mechanism. These represent only a few examples of the role that musical learning can play in motor development.

The development of motor skills is in part a maturation of the neuromusculature which is genetically predetermined and present at birth (Hall, Perlmutter & Lamb, 1982). Although there are universal characteristics of motor development which occur regardless of the environment in which a child is reared (Dennis & Dennis, 1940), it is clear that experience also influences motor skill development. For example, in an environment deprived of both social and physical stimulation, the development of motor skills appears to suffer a serious lag. This was demonstrated in the Spitz study discussed above. Later studies have replicated Spitz's findings (Dennis, 1960; Dennis & Sayegh, 1965; White & Held, 1966) and have indicated that although motor development may require only normal freedom for spontaneous activity, some environmental factors have the ability to promote development while others can retard it. An environment in which music is an important component may effectively serve to enhance the development of various motor skills during the critical period.

SOCIAL INTERACTION

These studies on the effect of deprived and enriched environments on development have also generated data concerning the significance of social interaction during the critical period. These studies provide evidence that social interaction with other humans during this period is essential for normal development. One of the most well known of these studies was carried out by Harlow & Harlow (1969) in which an experimental model of human social deprivation was developed using monkeys. These investigators found that monkeys who were socially deprived for 6 months to 1 year were physically healthy but suffered devastating behavioral effects. They also found that social isolation during the critical period produced persistent and serious behavioral alterations whereas deprivation after this time appeared to have very little effect on behavior.

Given the social nature of music, it is possible that musical activities provided during the critical period may influence social development in children. In most cases, participation in a musical activity requires working as part of a group in a cooperative venture. Such participation promotes social exchanges between children which may make important contributions to the development of normal social behavior (Mcdonald & Simons, 1989). In a study of the effects of this type of musical experience on the behavior of disadvantaged children,

Foster (1965) observed that:

> Music has an integrating power on the individual and the group. The withdrawn child tends to relax his guard and is more ready to participate with the others, while the hostile child seems to be less aggressive, so that each is helped to become a contributing member of the group. Here is one task in which all can cooperate to produce something mutually pleasing (p. 374).

LANGUAGE

A final implication of this research for preschool music education can be found in studies into language development in early childhood. These studies indicate that skills are present in the preschool years which virtually disappear if they are not practiced and subsequently developed (Mayeux & Kandel, 1985). For example, very young children are sensitive to the acoustic distinctions of all human languages, including those phonetic distinctions that are not utilized in their native language. That Japanese adults cannot distinguish between the sounds of "r" and "l" and Japanese infants can illustrates this point well. However, this ability deteriorates quite rapidly as children mature. Eimas (1985) suggests that there is a neural basis for this decline which would not occur if such skills were practiced during the critical period. Chomsky (1957) has indicated that no matter what language a child first hears, an identical set of deep structure rules is available for transformation to the rules of almost any other language. Hughes & Noppe (1985) suggest

that the preschool years represent a time when children could potentially learn innumerable languages and that this ability falls off sharply after the fifth year of life.

Experiences in music can give children an opportunity to practice and refine various linguistic skills, as many activities emphasize verbal communication. Songs or activities which utilize words or sounds from a variety of languages allow children to refine their ability to make acoustical and phonetic distinctions. Children can also be encouraged to experiment with these sounds in assorted ways and use them to create their own compositions. Such activities would not only give children an opportunity to rehearse important linguistic skills but may also stimulate general speech and vocabulary development with various sound and word plays, rhymes and chants.

Additional support for the use of music during the preschool years can be found in Graham's research into music and the learning of language in early childhood (1985). The results of his study suggest that the sentence patterns and vocabulary used in songs becomes a part of the productive linguistic system of the learner when the song being taught is used as a means of verbal interaction. These experiences give children an opportunity to develop and expand their vocabulary skills in an enjoyable and relaxed atmosphere. The importance of this is evident when compared to other research findings on the effects of deprivation on language acquisition. This research indicates that when children are

deprived of normal social and experiential language stimuli during the critical period, the development of language will be severely retarded (Fromkin, Krashen, Curtiss, Rigler & Rigler, 1974). Conversely, when such stimulation is made available to children during this period, language development will be enhanced.

Finally, Kolb & Wishaw (1980) indicate that the normal development of language skills depends upon complex interaction of sensory integration and symbolic association, motor skills, learned syntactic patterns and verbal memory. It has been suggested that music requires an integration of all of these skills, which represents another way in which musical experiences may contribute not to only musical but also general development during the critical period.

This suggests that it is possible that the neural networks, which are being laid down as musical skills develop, are of general benefit to other functional areas. Although this suggestion is a theoretical one, it is a hypothesis based on information which has been tested, replicated and accepted by the scientific community. Because of this, it is a testable theory. Studies which would examine the effects that early musical experience has on sensory, motor, social and language skills in children should provide support for such a hypothesis.

CHAPTER III
A PHILOSOPHY OF PRESCHOOL MUSIC EDUCATION

The preceding chapter suggested that the preschool years represent an important developmental period during which rapid intellectual growth takes place. It also indicated that these years represent what may be called a "window of opportunity" to influence the development of certain skills. This has implications for preschool education because it suggests that learning experiences during this period of life may impact on later development. It follows that the programs and pedagogical tools which are used to educate preschool children must be chosen assiduously. Musical experiences are no exception to this rule. Andress (1986) has suggested that the most effective manner in which to make such choices is to base them not only on musical objectives, but also on general knowledge about how children learn. She suggests that the insights provided to educators from research in cognitive development provide invaluable criteria on which to base curricular decisions.

The purpose of this chapter is to explore the value of this idea for curricular choices in preschool music education. Through a discussion of the learning theory of Jean Piaget, who has provided a comprehensive and informative perspective on learning in young children, some

characteristics of music will be explored as they pertains to learning and development in the preschool years. This examination will serve as a philosophy of preschool music education.

LEARNING THEORY

Perhaps the most intriguing and perplexing question concerning educators is that of how humans learn and develop, and how education can aid children in the improvement of the learning process. Many learning theories have been suggested that have helped educators to better understand this process and which have opened new areas of investigation for researchers. One example of a comprehensive theory of cognitive development, was developed by the Swiss biologist-psychologist Jean Piaget (1896 - 1980). Piaget began his career as a biologist, studying the development of mollusks in fresh water habitats throughout Switzerland. Through extensive observational studies, Piaget found that structural changes took place in successive generations of mollusks which could only be attributed to environmental adaptation. These observations led him to conclude that biological development was a result of not only heredity and maturation, but also of variables in the environment. Piaget thus postulated that biological development was a process of adaptation to the environment which could not be explained by maturation and heredity alone (Wadsworth, 1984). These conclusions answered many of Piaget's questions about the biological development of mollusks and presented new ones about the biological basis for learning in humans. Piaget suspected that cognitive development was the

intellectual counterpart of biological adaptation to the environment; as humans adapt biologically to their environment, they also develop intellectually (Wadsworth, 1984). Thus began the interest in psychology and epistemology (the study of knowledge) which led Piaget to explore ontogenetic changes in cognitive development from birth through adulthood in humans.

One of the basic principles of Piaget's theory of cognitive is that all living organisms develop through interaction with their environment and that this interaction is made productive by the twofold process of organization and adaptation (Hughes & Noppe, 1985). *Organization* involves the tendency to integrate the self and the world into meaningful patterns of parts within a whole to reduce complexity. *Adaptation* involves the tendency to interpret new experiences within the perceived demands of the environment. Piaget believed that this tendency, which was so predominant in biological development, also played an important role in intellectual development. He wrote:

> Life is a continuous creation of increasingly complex forms and a progressive balancing of these forms with the environment. To say that intelligence is a particular instance of biological adaptation is thus to suppose that it is essentially an organization and that its function is to structure the universe just as the organism structures its immediate environment (Piaget, 1952, pp. 3-4).

Based on this premise, Piaget suggested that an individual cannot be given knowledge, but rather obtains it through the processes of organization and adaptation in an environment which is rich in appropriate encounters and where learning is not rushed or forced.

Piaget observed that children approach organization and adaptation in two different ways. First, he observed the tendency to assimilate newly perceived data into already existing cognitive structures. That is, when a child discovers something new, he/she attempts to fit this into what he/she already knows. As Piaget wrote, "indeed, no behavior, even if it is new to the individual, constitutes an absolute beginning. It is always grafted onto previous schemes and therefore amounts to assimilating new elements into already constructed structures" (Piaget, 1976, pp. 170-171). Second, he found that children adjust cognitive structures to adapt and relate new information from the environment to previously processed data or experiences, thus creating novel and increasingly complex structures. Piaget called these two processes assimilation and *accommodation* and asserted that cognitive structures are acquired as the individual keeps a balance, or *equilibrium* between them (Piaget, 1976). This is a central concept in Piaget's theory, and he maintained that intellectual development could not take place without it. He wrote that, "generally speaking, this progressive equilibrium between assimilation and accommodation is an instance of a fundamental process in cognitive development" (Piaget, 1976, p. 175).

Piaget maintained that this innate desire for order and balance provides the motivation for advancement through a series of stages of cognitive development, with each successive stage representing a higher level of intellectual functioning. He found that these stages merge together and progress sequentially for each individual but they arrive at subsequent stages at varying times depending on cultural background, rate of growth and experience (Hall et al, 1982). Piaget also stressed that these stages appear in a fixed order of succession and that each one of them is a necessary prerequisite to the following one. In proposing stages of cognitive development, Piaget was not suggesting that intellectual development was a series of disjointed steps, but rather that it progressed in a cumulative manner, with each new step becoming integrated with previous ones. He wrote:

> In a general way, the fact should be emphasized that the behavior patterns characteristic of the different stages do not succeed each other in a linear way (those of a given stage disappearing at the time when those of the following one take form) but in the manner of the layers of a pyramid (upright or upside down), the new behavior patterns simply being added to the old ones to complete, correct or combine with them
> (Piaget, 1952, p. 329).

Piaget's "Stages of Cognitive Development" can be broadly defined as follows:

1. *Sensorimotor Period* - 0 - 2 years

During this period behavior is primarily motor. The child does not yet engage in conceptual thought, though cognitive development can be observed.

2. *Preoperational Period* - 2 - 7 years
This period is characterized by the development of language and rapid conceptual development.

3. *Concrete Operational Period* - 7 - 11 years
This period is characterized by the ability to apply logical thought to concrete problems.

4. *Formal Operational Period* - 11 - 15 years
During this period the child's cognitive structures reach their highest level of functioning, and the child becomes able to apply logic to all classes of problems (Piaget & Barbel, 1969).

These stages always appear in the same order of succession. Biological maturation opens the way to possible construction of cognitive structures; it remains for the subject to actualize the construction based on experience within the environment. Piaget wrote of rate at which the stages progress:

> In considering the . . . rate of succession of the stages, we can readily observe that accelerations or delays in the average chronological age of

> performance depends on specific environmental (ie. abundance or scarcity of possible activities and spontaneous experiences, educational or cultural environment), but the order of succession will remain constant (Piaget, 1976, p. 180).

The chronological ages at which children can be expected to develop behavior representative of a certain stage are not fixed. The ages suggested by Piaget are normative and only suggest times at which children can be expected to display the intellectual behaviors characteristic of the stages (Wadsworth, 1984). He also stressed that the age at which the stages occur can vary with the nature of both the individual's experience and his/her genetic potential. Progress through the stages is not automatic. The only aspect of Piaget's stage theory that is "fixed" is that every child must pass through the stages in the same order. (For a summary of the intellectual behaviors characteristic of Piaget's stages of development, see Appendix A).

In addition to these stages, Piaget has suggested that there are four other factors which act to influence the course of cognitive development: 1) maturation, 2) physical experience, 3) social interaction and 4) a general progression of equilibrium (Piaget & Barbel, 1969). He viewed each of these factors and their interaction as necessary conditions for cognitive development, but he stressed that they are not sufficient to ensure cognitive development on their own. Movement within and between stages of development is a function of these factors and their actions.

MATURATION

Piaget considered maturation of the neurological and endocrine systems as an important contributor to cognitive development. He believed that while the maturation of these systems provided the individual with the necessary structures for intellectual development, this was not in itself responsible for cognitive development. Rather, he believed that it served primarily to provide possibilities for the development of intellectual functioning which need to be reinforced by functional exercise and experience, or action. He wrote:

> There are no 'innate ideas'. Even logic is not innate and only gives rise to a progressive epigenetic construction. Thus the effects of maturation consist essentially of opening new possibilities for development, that is, giving access to structures which could not be evolved before these possibilities were offered. But between possibility and actualization there must intervene a set of other factors such as exercise, experience and social interaction" (Piaget, 1976 p. 192).

EXERCISE AND EXPERIENCE

According to Piaget, exercise and experience represent another factor in cognitive development. For example, he wrote:

> Knowledge is not a copy of reality. To know an object, to know an event, is not simply to look at it and make a mental copy or image of it. To know an object is to act on it. To know is to modify, to

> transform the object and to understand the process of this transformation, and as a consequence, to understand the way the object is constructed. [This] is thus the essence of knowledge; it is an interiorized action which modifies the object of knowledge (Hughes & Noppe, 1985, p. 214).

Piaget suggested that there are two different types of experience which can contribute to cognitive development. The first of these is *exercise*, which he believed involved some sort of action exerted upon an object. Piaget stressed that this type of exercise did not necessarily imply an increase in awareness of the external environment. Instead, he believed that it had to do more with the development of certain structures which would be used for later learning (Piaget & Barbel, 1969). The second type of action discussed by Piaget was *experience,* which he further divided into *physical* and *logicomathematical experience* . He defined *physical experience* as the extraction of information from objects through a simple process of abstraction. He stressed that physical experience was not merely a simple recording of phenomenon, but rather a set of actions which developed structures for more intuitive thinking skills to follow, specifically logic. He defined *logicomathematical experience* as acting upon objects. This type of action is different from simple experience and physical exercise in that it produces knowledge which, "seems to be derived from the objects because it consists of discovering by manipulating objects, properties introduced by action which did not belong to the objects before these actions" (Piaget, 1964, p. 194).

Although Piaget believed that exercise and experience alone were not sufficient conditions for intellectual development, his communications suggest that he placed considerable emphasis on the role of action within and upon the environment (Piaget, 1951, 1969, 1972a, 1976). He believed that learning is never passive and that, "in order to know objects, the subject must act upon them and therefore transform them: he must displace, connect, combine, take apart and reassemble them" (Piaget & Barbel, 1969, p. 165). He believed that enhanced cognitive development was the natural consequence of such active interaction between the subject and objects within his/her environment.

SOCIAL INTERACTION

Piaget believed that social interaction between individuals was also a fundamental factor in cognitive development. Piaget defined two types of social interaction: (a) those which can be seen, heard, spoken, etc., and (b) those which do not have obvious referents (Piaget & Barbel, 1969). For example, the concept of "tree" has physical referents; the concept of "honesty", however, does not. Since there are physical referents for the concept of "tree", most children could learn about that concept relatively independently of others. However, a concept such as "honesty" could not be developed independently as it is socially defined. Therefore the child is dependent upon social interaction for the formulation and validation of his/her concept of what "honesty" is.

Piaget believed that social interaction was a factor in cognitive development to which the individual contributed as much as he/she received from it (Piaget & Barbel, 1969). He emphasized (1969, 1976) that social action could only be a compelling factor in this development if the child was capable of assimilating it into already existing cognitive structures. He further asserted that what is learned through social interaction is effectively assimilated only when it gives rise to an active construction or reinvention by the child. He also suggested that when social interaction is constructive and if children are able to assimilate what is experienced within this social environment, learning, and thus cognitive development, could be accelerated. Conversely, when social interaction is restricted or undervalued, cognitive development could be inhibited (1969) .

EQUILIBRATION

Piaget proposed that there was an internal "regulating" system that operated to reconcile the roles of maturation, experience and social interaction (Piaget, 1976). He wrote:

> If development depends . . . on internal factors (maturation) . . . and . . . on external factors (physical and social), it is self-evident that these internal and external factors equilibrate each other. An internal mechanism is observable at the time of each partial construction and each transition from one stage to the next. It is a process of equilibrium . . . of self-regulation

(Wadsworth, 1984, pp. 32-33).

This system of self-regulation is the motivation for learning in Piaget's theory of cognitive development. Piaget suggested that through maturation, experience and social interaction, the structures necessary for cognitive development are formed. Through these mechanisms, new structures emerge which enable the individual to interpret "reality" in his/her environment. This enhanced understanding creates *cognitive disequilibrium*, which is a discrepancy between reality as it is currently perceived and the view of reality previously formed in the cognitive structures (Hughes & Noppe, 1985). Piaget believed that humans have an innate need for order and organization and therefore seek balance, or equilibrium, between themselves and external reality. Equilibration is an internal mechanism which exists for each new cognitive structure; the development of this mechanism represents the child's attempt to compensate for the external disturbances of the new information. According to Piaget, the end result of this adjustment is some degree of cognitive development which is both retroactive and anticipatory of future development (Piaget & Barbel, 1969).

Implications for Preschool Music Education

The basic premise of Piaget's learning theory, then, is that intellectual development involves the development of cognitive structures which consist neither of a simple copy of external objects nor of a mere unfolding of structures performed inside the subject. Instead, it

involves a set of structures progressively constructed by continuous and dynamic interaction between the subject and the environment. The question that must be asked is: What implications does this understanding of cognitive development have for preschool music education? Perhaps this can most effectively be answered by examining its relevancy to basic musical elements which are most frequently encountered in early musical experiences (Biasini, 1970; Andress, 1980; Nye, 1983; Sams, 1988). These include: (1) the symbolic nature of music; (2) the expressive nature of music; (3) the creative nature of music.; and (4) the social nature of music.

THE SYMBOLIC NATURE OF MUSIC

In its simplest form, music is a combination of pitches or sounds which are made meaningful to the listener through patterned organization. Staff notation has been extrinsically derived to provide a symbolic representation of these arrangements. This notation not only increases the number of individuals who can extract meaning from these arrangements, but also facilitates a means by which they can perform them (Kennedy, 1980). As Gardner Read has suggested, these, "*written symbols* of musical notation are universally understood wherever western culture has developed, though the musical ideas may have originated in Yugoslavia, Argentina, Sweden or the United States among composers whose verbal expression may be mutually incomprehensible" (Read, 1979, p. 3).

However, musical ideas need not conform to staff notation as a means of symbolic representation as music has a unique quality which allows individuals to experiment with sounds and shape them into an entity which is meaningful to them. The ideas which result from such experimentation can be represented in any number of ways because symbolism related to music can take a variety of forms. In their attempt to derive a meaningful pattern out of their experiences with music, children can dance or move, draw or paint, make up stories and act them out as a means of interpreting their response to musical stimuli. Such experiences in music allow children to operate as a composer, performer, interpreter and critic at their own level of understanding.

Piaget has indicated that in order to understand, we have to invent some means of symbolically representing our experiences (Hall et al, 1982). Americole Biasini supported this aspect of Piaget's theory when he wrote:

> Notation is not a characteristic of music and certainly is not needed to grasp the nature of music, to think creatively in it, or to generate and project musical ideas. It is the child who must take the lead in the use of such symbols. When he feels the need, he will create his own descriptive patterns and coding devices" (Biasini, 1970, p. 7).

Giving children the opportunity to experience music in this way during the preschool years would be an effective way to initiate them into

musical thinking and activities, as preschool children do not have the cognitive structures which would equip them for understanding the complexities of staff notation. Therefore, the symbolic nature of music can not only provide a vehicle for the early expression of musical ideas but may also contribute to cognitive development by allowing children to derive some form of symbolic representation of their experiences. Piaget maintained that the ability to communicate ideas through symbolic representation indicates a dramatic change in the preschool child's intellectual functioning (Hughes & Noppe, 1985).

THE EXPRESSIVE NATURE OF MUSIC

Through distinctly unique and complex combination of sounds, music can convey a myriad of ideas and feelings. These sounds can be organized to express numerous and diverse "images" by individuals of various ages and levels of musical training. Piaget has suggested that the need to be expressive is an important characteristic of preschool children (Barbour & Seefeldt, 1986). This expressive nature of music provides children with a tool for shaping and refining their expressions. This ability to express outwardly what they understand internally can help children to refine their interactions with their environment and the people within it. In his theory of cognitive development, Piaget stressed that as children's experiences within their environment become increasingly complex, their cognitive structures also become more complex. He also stressed that such complex interactions are critical to cognitive development in children (Barbour & Seefeldt, 1986). By giving

children the opportunity to express themselves with and through music, their cognitive structures become increasingly complex which in turn enhances the rate at which intellectual development takes place.

The expressive nature of music can contribute to cognitive development in other ways as well. For example, when children are encouraged to experiment with music in their learning environment, they have the opportunity to express and gain insight into various emotions and perceptions about themselves and their surroundings. David Swanwick wrote: "Music is one mode of understanding the world and our experience of it. It is a way of knowing the affective and knowing through feeling" (cited in Barbour & Seefeldt, 1986, p. 312). Piaget referred to this kind of broadened perceptual background as the reduction of egocentricity. He further stressed that this reduction of egocentricity equips children for interaction on a different, heightened level with their peers which further accelerates the rate at which cognitive development takes place (Piaget, 1976).

Giving children the opportunity to physically respond to the expressive elements of music may also be intellectually and physically stimulating to children (Piaget & Barbel, 1969). In fact, Piaget's theory leaves no room for questioning the value of learning through activity, or exercise. He wrote, "I think that human knowledge is essentially active. Knowing . . . means acting upon [something]. It means constructing

systems of transformations that can be carried out or on with some object" (Hughes, & Noppe, 1985, p. 214). From this perspective, the process of responding to the expressive quality of music and acting upon that expression physically and emotionally constitutes a certain degree of cognitive development.

THE CREATIVE NATURE OF MUSIC

Piaget maintained that the motivation for learning arises out of an innate curiosity to understand the environment (Piaget & Barbel, 1969). He has also indicated that children cannot obtain knowledge by copying the reality of others, but instead are motivated by an intrinsic desire to develop their own reality through creative interaction with the environment (Piaget, 1952). Preschool children are constantly creating within their environment as they develop new and more complex cognitive structures (Piaget, 1974). During this period of rapid language acquisition, they experiment with words as they create new ones and redefine old ones. Preschool children develop an extended capacity to form mental images that stand for or represent objects or events (Wadsworth, 1984) and they begin to create and manipulate mental substitutes for the real thing (Lay-Dopyera & Dopyera, 1987). The diverse possibilities for the arrangement of musical sounds can provide preschool children with an effective vehicle to help them explore these creative impulses.

Through music, creativity can be developed and expanded upon as a

tool for the development of cognitive structures, for musical activities can be filled with the action of discovery. Biasini discussed this valuable quality of music when he wrote, "in the [music classroom] the child [can] regard himself as a creative musician, experimenting, interpreting and discovering for himself the concepts and potentials of the art" (Biasini, 1970, p. 5). Piaget stressed that in order to truly acquire knowledge, children must explore and be creative within their environment. If information is always verbally imposed on them, they will not internalize it as well as if they had discovered it for themselves through creative interaction with their environment (Piaget, 1972b). The creative nature of music provides an ideal tool for this kind of exploration and learning, as appropriately planned experiences in music can give children basic tools for exploring and expanding their creativity. Piaget maintained that creative exploration of this nature makes a significant contribution to the cognitive development of young children (Hall et al, 1982).

THE SOCIAL NATURE OF MUSIC

In chapter II, some aspects of the social nature of music were discussed. It was suggested that the social nature of musical experiences can make an important contribution to general as well as musical development during the preschool years. Indeed, participation in classroom musical activities almost always requires social interaction in that they usually involve interactive group participation. Through participation in various musical activities, children can develop

cooperative skills, sharing and patience skills, respect for the rights and opinions of others, an understanding of the necessity for group leadership and "followership" and a general reduction in egocentricity which will accelerate the rate at which cognitive development takes place (Piaget, 1976).

Piaget stressed the importance of constructive social interaction for cognitive development (Piaget & Barbel, 1969, 1976) and suggested that cognitive development can be enhanced as a result of such interaction. He defined two types of social interaction: (a) those which can be seen, heard, spoken, etc., and (b) those which do not have obvious referents (Piaget & Barbel, 1969). Involvement in musical activities requires the exercise and use of both types of social skills. The first type of social interaction is usually present in group musical experiences. For example, verbal interaction usually plays a part in preschool music experiences, including teacher-student interactions and student-student interaction. These interactions often involve the exchange of ideas about music and how it should be performed to convey some idea or feeling. The second type of social interaction is frequently present in musical activities in that children are encouraged to learn skills such as patience, respect and cooperation which do not have obvious referents. These examples of the social characteristics of music could therefore facilitate both types of social interaction. Piaget asserted that what is learned through social interaction is effectively assimilated only when it gives rise to an active construction or

reinvention by the child (1969) Reinvention of this kind can be made a part of early musical experiences which will therefore have an impact on the general cognitive development of preschool children.

Piaget's research converges with the studies discussed in chapter II, in that he suggests that learning is a result of interaction with the environment and that the more complex and enriched this environment is, the more vital this interaction will be (Piaget & Barbel, 1969). The contributions which appropriately planned musical experiences can make to the development of sensory, motor, language and social skills were discussed in chapter II. Based on the discussion in this chapter, it is suggested that such experiences may also contribute to cognitive growth in preschool children, they can allow children to explore meaning through symbolic representation, express their thoughts and feelings in a meaningful manner, create new modes of thought and expression and develop important social interactive skills. Piaget suggests that such complex learning experiences will have a significant effect on cognitive development during the preschool years (Piaget,1969).

PHILOSOPHY OF PRESCHOOL MUSIC EDUCATION

This idea provides part of the foundation for a working philosophy of preschool music education. Such a philosophy refers to a system of basic beliefs which underlies and provides a basis for the operation of the musical enterprise in a musical setting (Leonhard & House, 1972).

With these basic beliefs defined in the foregoing, a philosophy of music education as it pertains to preschool children can be formulated.

It has been suggested that music can be used effectively to promote cognitive development in the education of preschool children. However, in light of Piaget's learning theory, it is clear that musical experiences must go beyond merely singing and dancing. A preschool music program should embody a hands-on, experiential discovery approach to music and not impose contrived ideas and repertoire on the child. Such an approach will provide children with the opportunity to learn, explore, discover and make judgments about the ways in which they will use and enjoy music throughout their lives. Indeed, it seems likely that a program which emphasizes process is one which encourages children to learn to think "musically" for themselves very early in their lives.

Based on the above discussion it is proposed that if a preschool music program encourages children to develop important social skills, derive meaning from their environment, express their ideas and feelings and create new meaning through music, it will not only be a positive musical experience, but it may enhance their cognitive development as well. If music is imposed on children, it does not become a part of them, and they do not internalize its intrinsic value as they would had they personally discovered and experienced it. Allowing children to grow and develop as they experience music may help them to develop a love for and

understanding of the processes involved in music that may be sustained throughout their lives.

The pursuit for providing this type of experience for young children lies at the root of a philosophy of preschool music education. The guiding principle must therefore be that when children's musical experiences are guided rather than inhibited by preconceived expectations, the resulting environment can enrich not only musical learning, but can enhance general intellectual growth. When young children's musical experiences are stifled by the forces of academic conformity, and when musical concepts are verbally imposed, the resulting environment may be inhibiting to both musical and intellectual growth.

CHAPTER IV

MUSICAL DEVELOPMENT OF 4 - YEAR- OLD CHILDREN

The past 25 years have witnessed an increasing interest in the systematic study of musical development in preschool children. From the broadest perspective, research in the area of musical development has attempted to provide information about the acquisition of musical ability. More specifically, it has endeavored to determine which factors influence this development and what musical behaviors are characteristic of particular ages or stages of life (McDonald & Simons, 1989). This chapter will outline this research base as it pertains to 4-year-old children. The areas of musical development which will be discussed are listening, singing and vocal development, rhythm and movement and creativity.

LISTENING SKILLS

Given the importance of listening skills for the development of other musical abilities, it is not surprising that this area has received considerable attention from researchers (Simons,1978, 1986). By its very nature, music requires that the participant have certain listening and discrimination skills in order to adequately perceive it. Even in the most simplistic song, several musical elements are present which require the participant's attention. It has a melody, a rhythm pattern and a form. To be performed it must be produced by an instrument or voice which has unique timbral characteristics. The song may be

performed loudly or quietly, fast or slow, or at different pitch levels. In order to correctly perform the song, the participant must be aware of these characteristics at some level. This, according to many researchers (Greenberg, 1979; McDonald & Simons, 1989; Simons, 1986) requires that listening skills precede the development of other musical abilities. Simons (1986) has suggested that, "experience and growth in listening skills underlie and are essential to musical concept development. Concept attainment enables children to formulate mental impressions, compare and differentiate, see relationships, generalize musical ideas and eventually interpret or produce music" (p. 43). With consideration to this, many researchers have attempted to determine when and how such skills develop and if this development is influenced by experience, practice and maturation. The most widely investigated aspects of listening skills are aural discrimination of pitch, melody, rhythm, dynamics and timbre.

Studies into the development of listening skills have demonstrated that certain musical elements may be distinguished and comprehended earlier than others. The ability to respond to and discriminate between various dynamics and timbre appears to develop around the age of 4 or 5 years (Fullard, 1967; Jetter, 1978; Loucks, 1974; Scott, 1979), which is much earlier than previously considered possible (Simons, 1986). These studies suggest that 4-year-old children can not only respond to and accurately distinguish between various dynamic levels, they can also identify orchestral instruments by their timbral characteristics.

Investigations into pitch discrimination and concept formation ability in preschool children have revealed that 4-year-olds are capable of forming concepts of pitch register, melodic contour and interval size and that this ability increases with age and experience (Scott, 1979, Jetter, 1978). Other studies (Ramsey,1983; Davidson, 1985) suggest that 4-year-olds can perceive rhythm, melodic contour and melodic intervals ("skips" versus "steps") and that these discrimination abilities improve with both maturation and experience. The development of such concept formation, however, is only evident when nonverbal response modes are used (Hair, 1977; Ramsey, 1983; Van Zee, 1976; Webster & Schlentrich, 1982). These investigations indicate that this appears to apply to preschool children of all ages and may even include 6-year-olds.

This body of research suggests that 4-year-old children are capable of a higher level of aural discrimination than was previously thought possible (Scott, 1979). It has provided evidence that children of this age are able to perceive and respond to timbral differences and dynamics, classify pitches and pitch register, accurately perform or reproduce melodies with various contours and distinguish between simple melodic intervals. These studies also suggest that the development of such skills in early childhood may have a profound influence on the emergence of other musical behavior (Scott, 1979; Simons, 1986). In addition, it indicates that since children are capable of developing specific and sophisticated listening skills, increased emphasis on ear training experiences is required in preschool music

curricula. However, since there is evidence that the development of these discrimination skills during the preschool years may influence further musical development, this ear training should be an ongoing process and not an occasional part of early musical training (Simons, 1986).

SINGING AND VOCAL DEVELOPMENT:

The development of singing ability in preschool children has also provided impetus for various studies over the past 50 years. As with listening skills, this development progresses in sequential stages (Gardener, Davidson & McKernon, 1979). By the time children are 4-years-old, they are able to learn songs rapidly. This appears to be facilitated by the following learning sequence: words, rhythm, phrases and melodic contour. At this age, tonal stability is not evident and children cannot easily match pitches, although this ability does appear to improve with age and experience (Gardener et al, 1979). Gembizkaja (cited in Simons, 1978) suggests that children's ineptitude in this area can be attributed to underdeveloped vocal and auditory organs, emotional disturbances and lack of concentration. Another study indicates that singing ability is improved by group training (Smith, 1963). Finally, while it appears that early vocal training may accelerate singing ability in 4-year-olds, Boardman (cited in Greenberg, 1976) suggests that it does not significantly affect the growth pattern in later years.

Studies into the average vocal range of preschool children has emphasized the importance of choosing songs with consideration to range, as the natural pitch range of the 4-year-old child is fairly limited. Williams (1932) suggested that the natural range of the 4-year-old child's voice lies between c' and c''. Hatwick (1933) indicated that this range is b-g'. Jersild and Bienstock (1934) suggested that vocal range increases steadily from 2-5 years and that the range of 4-year-olds is b-c''. Drexler (1938) recognized that most 4-year-olds were able to sing comfortably between c'-$d^{\#}$''. Alfred (1966) reported that the most frequently heard vocal range among preschool children was a^{b} - d'' and Klanderman (1979) reported this range to be from c' - a' (cited in Ramsey, 1983). Although there is some variation in the results of each of these studies, it seems clear that the natural vocal range of 4-year-olds is quite narrow and pitched somewhat lower than some music educators believe (Simons, 1978).

The importance of these findings for planning preschool music curricula is three-fold. First, the sequences employed by children when learning songs should be carefully considered when planning for musical learning. Research indicates that children's approach to learning songs is sequential in nature, based on the characteristics of the song. The teaching of songs in a preschool setting should therefore be based on this sequence, making learning more effective and enjoyable for the children involved. Secondly, songs which properly incorporate the vocal quality and range of children can be used to help children develop both

vocal and aural concepts. Simons (1978) suggests that neglecting to take such characteristics into consideration when planning for preschool music education can be both damaging and counterproductive to musical learning. Finally, the evidence that group vocal training can be effective in a preschool setting suggests that this is an important time for the development of singing ability. While this training may not have an effect on the long-term musical growth of children, it does appear to accelerate singing ability during that period and encourages children to take pleasure in group singing experiences at an early age. The importance of this for preschool education is that early vocal training allows children to not only explore their singing voices, but also to develop other highly sophisticated skills such as aural discrimination (pitch matching, intervalic accuracy, melodic contour), rhythmic accuracy and expressive skills which can make an important contribution to later musical learning. With consideration to these findings, this researcher's experience also suggests that the texture of a melody has a significant effect on the ability to reproduce pitch in 4-year-old children. This experience has demonstrated that the melodies used with this age group should have an uncluttered, simple texture in terms of intervalic characteristics, rhythm and accompaniment in order to provide the most effective learning experience. It has been found that melodies without these characteristics are difficult for 4-year-olds to accurately reproduce.

RHYTHM AND MOVEMENT

Most young children respond to musical stimuli through movement. For this reason, the development of rhythmic skill in preschool children is often investigated with reference to children's movement response. Moog (1976) observed such responses in 500 children and reported that motor movement to music begins at about 6 months of age. At 2 years of age, these movements become more refined and synchronized responses to music. Moog observed that in 4-year-old children, the total number of movements to music declines rapidly, although there is no significant increase in the frequency of coordination between movement and music. Moog also found that considerable progress in synchronizing movement with music is made between the 4th and 6th year of life.

Rainbow and Owen (1981) conducted a study over a three year period to determine the ability of 3- and 4-year-old children to learn and master rhythmic tasks. The results of this study indicated that in the performance of the rhythmic tasks, those requiring large muscle responses were more difficult than tasks involving simple instruments, and simple instrument tasks were more difficult than speech pattern responses. Significant differences were observed between 3- and 4-year-olds in the ability to perform these tasks, indicating that maturation also plays an important role in rhythmic development. In a similar study, Frega (1979, 1982) reported that most 4-year-old children can keep a beat with their hands, feet, rhythm instruments and other body parts. She also observed that 4-year-olds can echo rhythm

patterns using their hands, speech and singing patterns as well as with instruments. In terms of auditory and visual discrimination, Frega found that 4-year-olds can discern between two different rhythm patterns both aurally and visually, although aural recognition is generally more accurate than visual recognition. None of the 4-year-olds tested in her study could accurately perform a rhythmic ostinato. Frega also indicated that both maturation and experience play an important role in the development of rhythmic skills.

This research has several important implications for curriculum planning for preschool music. First, it indicates that the development of rhythmic skill in preschool children is most effective when motor involvement is encouraged. It further implies that certain types of movement are more effective in this development than others and stresses the importance of using speech patterns for teaching rhythmic skills to preschool children. In addition, it suggests that while it is important to be sensitive to the physical limitations which children experience when developing rhythmic skills, it appears that preschool children can perform more refined rhythmic tasks than previously thought possible provided the environment is sensitive to their learning style.

Perhaps the most important implication of this research lies in it emphasis on the reliance of rhythmic development on physical maturation. Most of this research cautions that the ages from birth to 6

years should be considered developmental in the most literal sense as it applies to rhythmic development (McDonald & Simons, 1989). Failure to perform a rhythmic task accurately may be a result of limited motor coordination skills and should not necessarily be equated with poor rhythmic perception.

CREATIVITY

Investigations have also been made into creative vocal improvisation and song development in preschool children and efforts have been focused on determining how they relate to the evolution of musical concepts and development (Moorhead & Pond, 1978; Shelley, 1981; Davidson, 1985). This research indicates that the songs created by preschoolers indicate the emergence of the ability to integrate various highly sophisticated musical knowledge and skills (Davidson, 1985). The Pillsbury Studies (1937-1948), which were reported by Moorhead and Pond (1978) inquired into the natural musical expressions of children and found that a) for young children, music is primarily the discovery of sound; b) music time with children should include their purposive action or involvement; c) in planning for musical experiences, it is necessary to consider social, environmental and procedural conditions; and d) spontaneous music making should be carefully considered (cited in Zimmerman, 1985).

Shelley (1981) investigated children's innate musicality as expressed in a contemporary preschool setting. She found that an

environment which allows for free exploration of sound and uninhibited sound construction can be established in a contemporary preschool setting. She further suggested that children's innate creativity can be most effectively nurtured in this environment and that the nurturing of these expressive qualities will lead to more effective musical learning, especially if this type of environment is consistent throughout the child's musical education.

This research emphasizes the importance of establishing an appropriate physical and emotional environment to ensure effective musical learning. It indicates that this learning does not need to be imposed on children, but rather that children have instinctive musical behaviors which can be extracted and nurtured if the environment is sensitive to them. It has been shown (Kirkpatrick, 1962) that the effect of the home environment which nurtures the development of musical skills is greater than that of the classroom environment. Although a preschool music program should not be considered a substitute for a lack of musical nurture in the home, this research should be carefully considered when planning for this age group as it indicates that this approach to introducing musical concepts is the most effective. These studies suggest that musical learning should be experiential in nature and should given children to opportunity to manipulate their environment in a manner that is suited to their learning style. The provision for this kind of learning environment will help provide for creative and dynamic musical learning.

CHAPTER 5

12-WEEK CURRICULUM

The preceding chapters have presented some basic principles, all of which represent a theoretical foundation on which to base curricular decisions for preschool music education. These basic principles are:

a. The preschool years represent a period of rapid brain development.
b. Environmental influences have their greatest impact on this development during the preschool years.
c. An enriched learning environment may influence both cognitive and physical growth during the preschool years.
d. Cognitive structures are constantly developing as the child acts on the environment and assimilates and accommodates to stimuli within it.
e. Cognitive development is influenced by maturation, experience and social interaction, and depends upon the process of equilibration to mediate the influence of these factors.
e. Preschool children have the ability to develop various musical skills in the appropriate learning environment.
f. The development of musical ability is dependent upon both experience and maturation.
g. A preschool music program should embody a hands-on, experiential discovery approach to music.

Based on these principles, a series of objectives for a preschool music program can be formulated. Two areas have been considered as categories for these objectives: a)developmental objectives and b) musical objectives. This division provides a developmental rationale for choices while allowing for a specific, musical focus. It must not be overlooked that this is a curriculum designed for musical learning. The focus of this curriculum and the pedagogical choices which are subsequently made must therefore be the development of musical skills in preschool children. However, as the preceding chapters have attempted to demonstrate, careful consideration to and thorough understanding of what is developmentally appropriate for 4-year-old children may in fact make these musical experiences more effective in developing these skills.

Based on the developmental theory presented in chapters II and III , a series of "developmental objectives" for preschool music education can be created. Consideration of these objectives when choosing activities for a preschool music curriculum will aid in the formulation of a program which is developmentally appropriate for 4-year-old children. They can be outlined as follows (these are not presented in any order of importance):

DEVELOPMENTAL OBJECTIVES

VERBAL AND NONVERBAL EXPRESSION

a. Expression of ideas both verbally and physically.

b. Exploration of sounds, instruments, words and sentences.

c. Development of observation and creativity skills.

d. Development of perceptual-motor skills through verbal and nonverbal expression.

e. Develop confidence in verbal and nonverbal expression.

PERCEPTUAL DEVELOPMENT

a. Development of sensory awareness in response to various musical stimuli.

AFFECTIVE DEVELOPMENT

a. Expression of perception and attitudes through psychomotor activity.

b. Development/strengthening of self-concept through exploration and expression of various emotions and attitudes.

SOCIAL DEVELOPMENT

a. Development of cooperative skills.

b. Development of sharing and patience skills.

c. Development of respect for the rights, opinions and feelings of others.

d. Development of group leadership and followership skills.

INTELLECTUAL DEVELOPMENT

a. Develop and implement problem solving skills.

b. Development of verbal skills for use in exploration of discussion of various musical experiences.

c. Develop the ability to make decisions through higher intellectual processes such as how to communicate through music, how to play instruments, which instruments to use to produce a certain sound and how to imitate certain sounds from the environment.

d. Enhance symbolic representation skills by creating sounds, movements, etc. that represent previously formed images.

PHYSICAL DEVELOPMENT

a. Development of body awareness and large and small fine motor control.

b. Develop an understanding of the purpose and potential of various body parts through psychomotor activity.

c. Develop the concept of directionality and laterality.

(adapted from Nye, 1983)

The musical objectives for this preschool curriculum have been based in part on the information provided by research in the area of musical development. The collective results of these studies provides not only a substantial source of information concerning what musical

skills can be expected of children but also indicates what kinds of musical goals and objectives are suitable for this age group. Other pertinent suggestions for these musical objectives have made by various curriculum planners and pedagogues in the field of preschool music education. Most agree that skill development should take place in the areas of aural discrimination (Sams, 1988; Choksy, 1981; Frega, 1982; Brink Fox, 1987; Foss More, 1987), rhythm and movement (Frega, 1982; Krokfors & Kuosmanen, 1987; Andress, 1980,1984), creativity (Frega, 1982; Bridges, 1987; Andress, 1984), and singing (Andress, 1980, 1984; Nye, 1983; Sams, 1988; Choksy, 1981; Foss More, 1987). Based on these suggestions, the following musical objectives for preschool music have been formulated (these are not presented in any order of importance):

MUSICAL OBJECTIVES

COMPARATIVES

a. dynamics (louder and softer)

b. pitch (higher and lower)

c. tempo (faster and slower)

d. timbre (brighter/darker; happier/sadder, etc.)

MOVEMENT

a. creative, expressive movement

b. singing games, dances

c. development of accurate beat keeping skills

d. rhythmic precision

MELODY

a. unaccompanied singing

b. pitch matching

c. conversational singing

d. melodic patterns (singing, aural recognition)

RHYTHM AND BEAT

a. development of accurate beat keeping skills

b. note values (durational names and symbols)

c. rhythm instruments to develop accurate beat keeping skills

d. echo clapping

e. rhythm pattern recognition

f. building and performing of simple rhythm patterns

g. ostinati

GENERAL MUSICAL SKILLS

a. learning about instruments

b. improvisation with body and musical instruments

c. development of a song repertoire

These developmental and musical objectives provide a framework for the formulation of a music curriculum for 4-year-old children. Their value to this process is two-fold. First, they are based on tested evidence which provides insight concerning how children learn and develop, both generally and musically. It follows that curricular choices based on information of this nature provide learning experiences which are suited to the needs and capabilities of the children being planned for. As it was suggested in chapter II, the pedagogical choices made for preschool children may be have more impact on the development of musical skill during this period than at any other time. This increases the importance of making sound educational decisions based on empirical data. The research discussed in chapters II and III and the developmental objectives suggested above provide this context. Second, the information available from the practitioners in the field of preschool music is extremely valuable to the formulation of a curriculum for this age group. Indeed, not all of the insights into the musical behavior of

preschool children evolve in a laboratory. The experiences of practitioners in the area of preschool music education must not be overlooked as valuable sources of knowledge, as they provide a wealth of practical information and ideas on which to base curricular decisions for musical learning. The curriculum being proposed in this chapter is therefore based on the insights provided by both researchers and practitioners.

ORGANIZATION OF THE CURRICULUM

The lessons presented in this curriculum are intended to be taught on a weekly basis over a three month period. This is not to indicate, however, that the musical education of preschool children should cease at the end of three months. Indeed, the activities presented in the following lessons are designed with several follow-up suggestions in mind. These follow-up activities, which are outlined in the section titled "suggestions for further use" at the end of each lesson, are intended to provide a foundation on which to plan further musical experiences in the preschool classroom. It is suggested that this 12-week curriculum be followed by two additional 12-week curricula, thus providing for 36 weeks of musical learning for the four-year-old child.

It is recommended that this curriculum be taught by a music specialist. Although several individuals have suggested that learning experiences in music can be taught competently by general preschool teachers (Greenberg, 1976; Gerber, 1982; Bridges, 1987; Brink Fox, 1987;

Krokfors & Kuosmanen, 1987), it is the contention of this author that a teacher trained in music and music pedagogy would most effectively carry out this task. This author believes that while a generalist may be able to communicate basic musical ideas to children when detailed lesson plans are provided for them, a music specialist will have an understanding of not only what to teach, but also how to teach it and why it should be taught. Such skills also lend insight into the direction the music curriculum takes in providing for the optimum development of musical skill in preschool children. This insight will ultimately lead to more effective musical education for the preschool child.

Finally, in determining where this curriculum should be taught, two possibilities can be suggested. The first is that it be taught in preschool institutions themselves. Health and Welfare Canada (1986) indicates that increasing numbers of preschool children are entering child care institutions across the country. These expanding numbers present preschool educators with the task of providing adequate educational experiences for a growing number of children. In an effort to make music an effective part of these experiences, this curriculum could be taught by itinerant music teachers in child care facilities within various communities. The second possible setting for this curriculum is as part of a community education program which would be offered outside the realm of the child's regular preschool program. Community education programs might include private music schools or conservatories, public schools, churches, continuing education programs

or as a private commercial enterprise. Providing this curriculum in both of these settings would increase the number of children who could potentially become involved, as not all preschool children are enrolled in child care facilities and not all child care facilities would be willing to offer such a program. This curriculum should therefore be offered in both settings as a means of providing musical experiences for a larger number of preschool children.

ORGANIZATION OF THE LESSON PLANS

12 detailed, sequential lesson plans will form the body of this curriculum. These lessons will be planned within the context of a 20-25 minute time frame. This time frame was chosen based on suggestions made by Piaget (1974) concerning the average attention span of 4-year-old children. The activities used in these lessons were chosen with regard to the developmental and musical objectives listed above and were tested with a group of 4-year-olds during a 12-week study carried out at the University of British Columbia Child Study Center to determine their practical value. In the cases where activities have been based on suggestions from published sources, they will be referenced in the lessons plans.

Each lesson in this curriculum is designed to provide for the simultaneous development of various musical skills, although one particular skill area may receive more attention in one lesson than in another. The purpose of this approach is to provide for the development of general musical skills and to lay down a basic repertoire of abilities

through a variety of musical experiences. These skill areas include: singing (in-tune, pitch matching, etc.), movement, rhythm, beat and comparatives (higher-lower, faster-slower, louder-softer, timbre). Most of the activities suggested in the curriculum are designed to contribute to some aspect of the musical development of the children. The musical developmental nature (pertaining specifically to the development of musical skill and not to the development of general skills) of each these activities should be evident in the progression of the lessons and in their continued use from lesson to lesson. Other suggestions pertaining to the musical developmental nature of the activities will be made in the "suggestions for further use" section at the end of each lesson and in Appendix B. In some cases, the activities used have been planned as isolated musical experiences and are not expanded upon from lesson to lesson. In these cases, this will be documented in the "suggestions for further use" section at the end of each lesson.

Each lesson plan has been organized in five sections: (1) lesson objectives; (2) skill development; (3) procedures; (4) materials; and (5) suggestions for further use. The lesson objectives represent what should be accomplished in each lesson, and the skill development section indicates which musical skills the completed objectives should contribute to. The procedures section will provide information on how these objectives should be accomplished. The materials section will provide suggestions as to the materials which could/should be used in

attempting to accomplish the objectives of the lesson. In the fifth section, suggestions for further use for each of the activities in the lesson will be provided. The purpose of these suggestions is to provide a basis for further development of this curriculum. A summary of how these activities correspond with the musical and developmental objectives listed above can be found in Appendix B.

LESSON 1

OBJECTIVES:

1. Sing a greeting song to learn the children's names and to prepare the children for later singing activities: *If Your Name Begins With the Letter I Sing* (5 minutes).
2. Sing a song with movement to get into circle formation and to introduce various musical comparatives to the children: *Can We Make a Circle?* (3 minutes).
3. Learn a new song: *Teddy Bear* (5 minutes).
4. Perform various movements to the above song as the words suggest (5 minutes).
5. Sing a good-bye song: *Good-bye* (2 minutes).

SKILL DEVELOPMENT

COMPARATIVES

a. dynamics (louder and softer)

b. pitch (higher and lower)

c. tempo (faster and slower)

MOVEMENT

a. singing games, dances

b. keeping a beat

MELODY

a. unaccompanied singing

b. pitch matching

RHYTHM AND BEAT

a. keeping a beat

GENERAL

a. development of a song repertoire

PROCEDURES

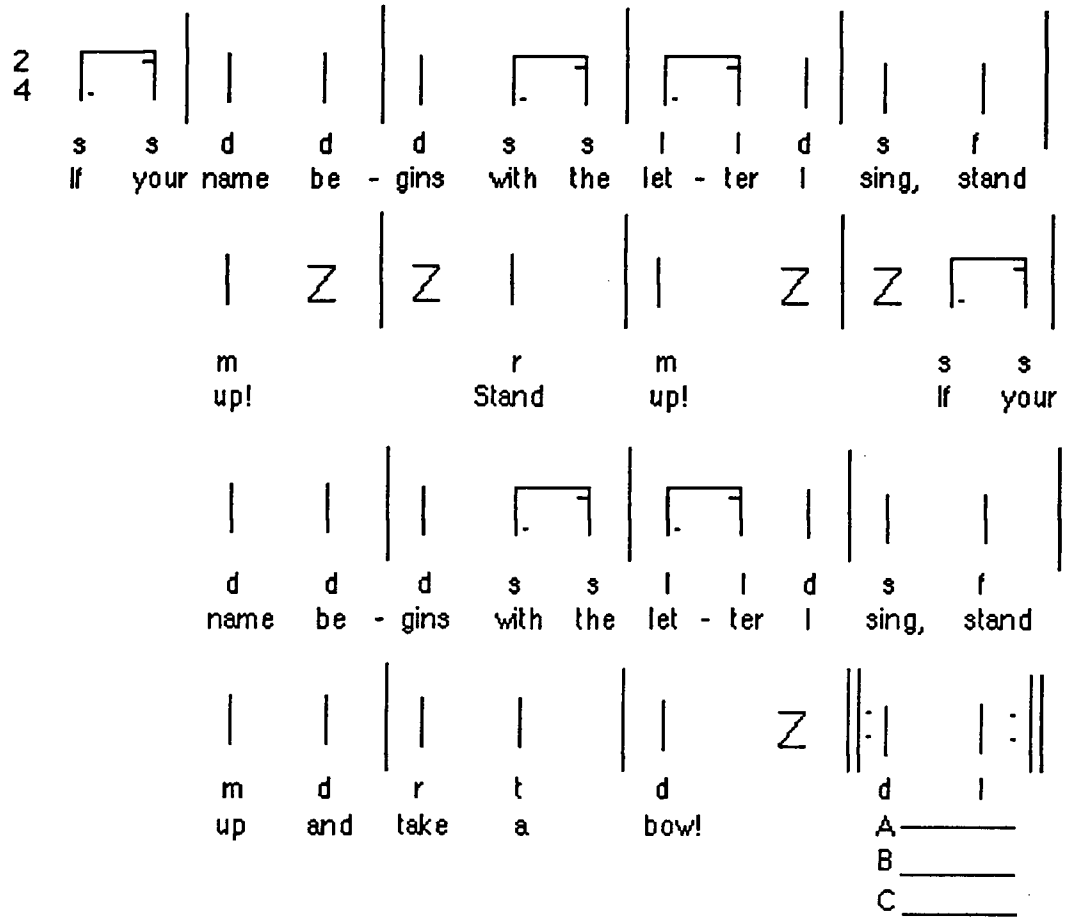
1. *If Your Name Begins With the Letter I Sing*

a. Review the alphabet by asking the children to stand up when they hear the first letter of their name. When they are standing, ask them to take a bow. ie) All of the "E's", take a bow. Flash cards with the letters of the alphabet on them could be also be used with this activity.

b. Sing the song to children and ask them to sing along with you when they know it too. Tell the children to tap the "beat" on their laps as they sing the song with you.

c. As the children stand up when their letter is sung, ask them to sing* their names individually then to take a bow when they are finished.

d. Continue this procedure until all of the children have had an opportunity to sing or say their names and take a bow.

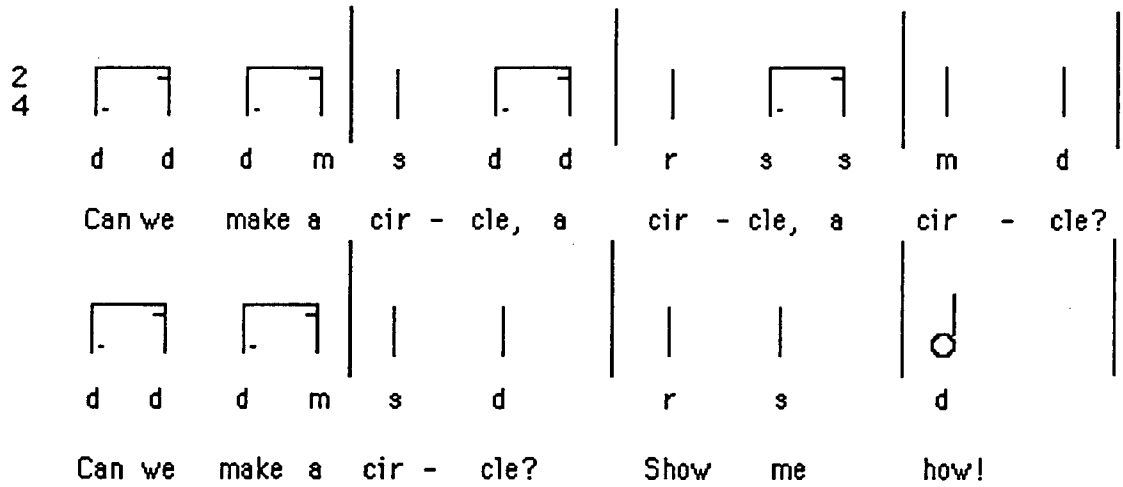


2. *Can We Make a Circle*

a. Begin singing the song and indicate to the class that a circle formation is desired by joining hands with the children next to you. It may be necessary to tell the class to join hands so that a circle can be formed. Sing, rather than say this instruction to them.

b. Once the children are in circle formation and are comfortable with the song, sing additional verses.

1. Can we make it bigger . . .
2. Can we make it smaller . . .
3. Can we make it louder . . .
4. Can we make it softer . . .
5. Can we make it faster . . .
6. Can we make it slower . . .



3. *Teddy Bear* (Birkenshaw, 1977).

a. A Teddy Bear is in a bag. Give the children some clues, and ask them to try and guess what is in the bag. For example:

It is brown and fluffy

It is very snugly and nice to take to bed with you

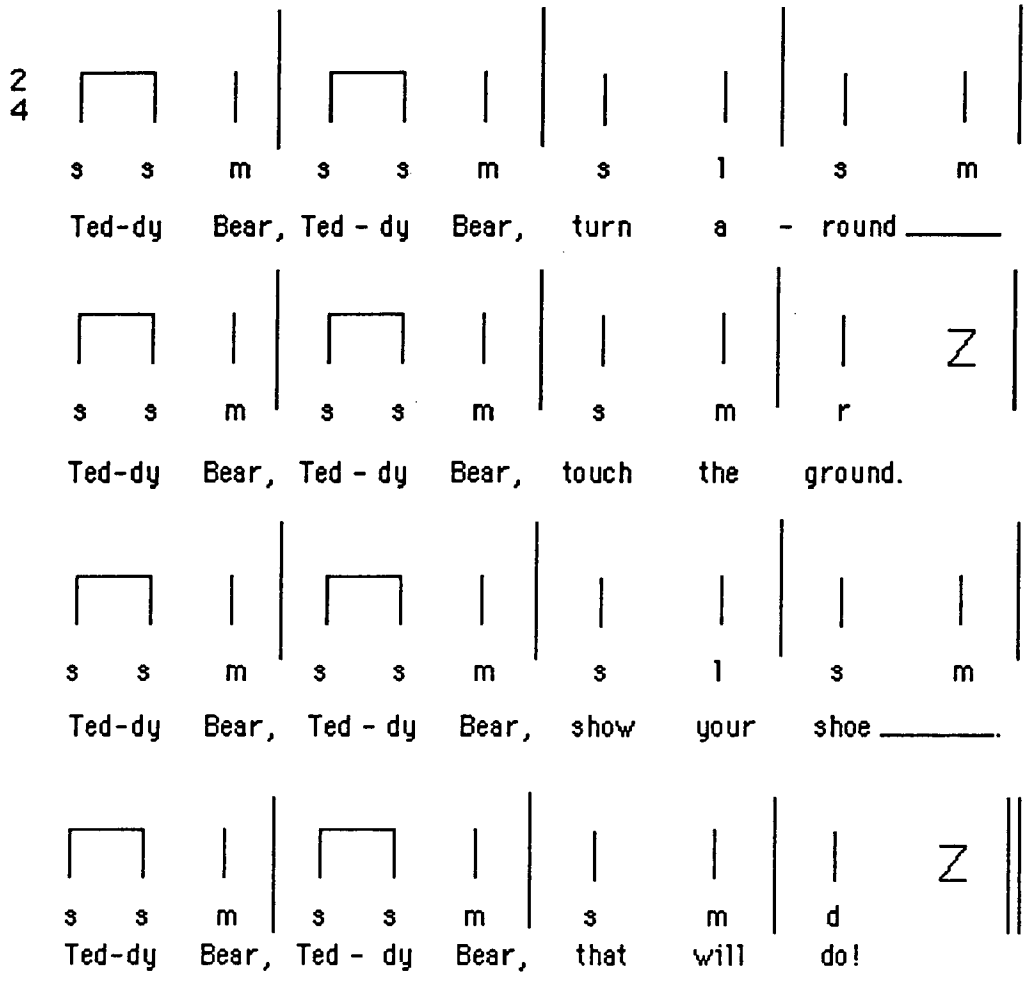
His first name is Teddy

What is it?

b. Show the Teddy Bear to the children. Point out its arms, legs, ears, face, clothing, etc. Ask children if their bodies have the same features. Ask the children to move their body parts as you move those parts on the Teddy Bear.

c. Tell the children that you have a special song about all of the things that Teddy can do. Sing the song and do the actions with the Teddy Bear.

d. Tell the children that you need them to help you sing the song. Teach them the song by rote, with the children echoing what you sing.



4. *Teddy Bear (with movement)*

a. Sing the song together and ask one of the children to do the actions with Teddy. Go through this step once or twice, until the children perform the actions while singing the song.

b. If the children are comfortable with this task, ask them to pretend that they are Teddy Bears, and to do the actions as you sing.

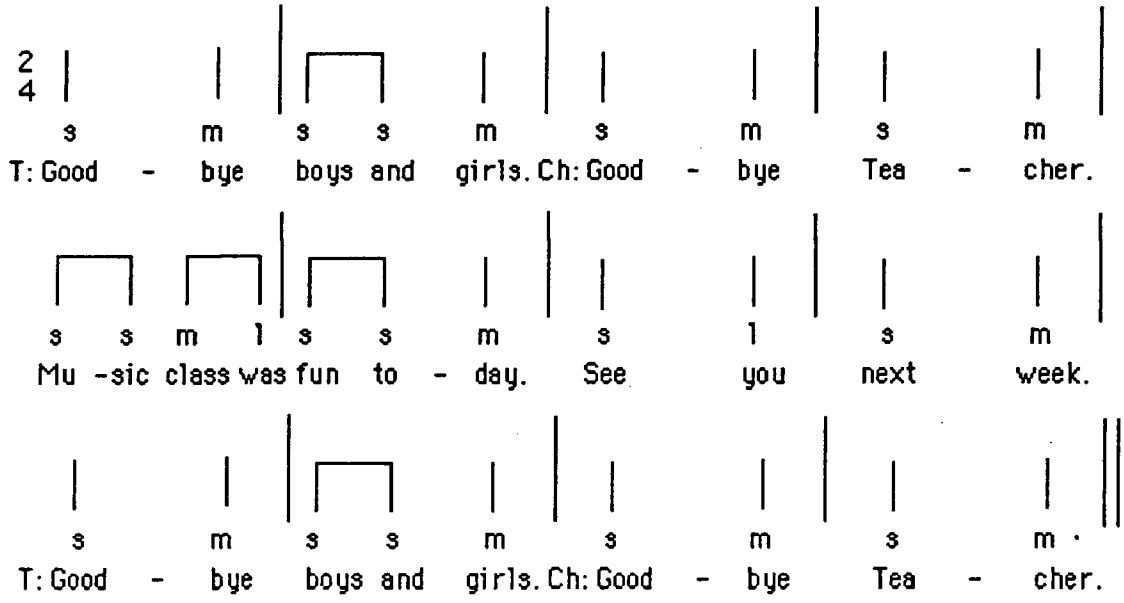
5. *Good-bye Song*

a. Ask the children to be your echo by saying what you say when you are finished. For example:

Good bye children (T)*
Good bye children (ch)*
Good bye teacher (T)
Good bye teacher (ch)
We had a lot of fun today (T)
We had a lot of fun today (ch)
See you next week (T)
See you next week (ch)
Good bye children (T)
Good bye children (ch)
Good bye teacher (T)
Good bye teacher (ch)

*T=teacher
ch=children

b. Now tell the children that you will perform the verse using a different kind of voice, called a singing voice. Ask them to try to find their singing voices as they echo you. Follow the same procedure as above, using l-s-m in a range which is comfortable for the children. For example:



MATERIALS

a. flash cards of the letters of the alphabet (optional)

b. Teddy Bear

SUGGESTIONS FOR FURTHER USE

1. This activity could be used on a regular basis as a greeting song, to begin the lesson singing rather than speaking. If the children are reluctant to sing by themselves to begin with, they could be encouraged to say their names as they bow. Gradually, this response could be refined to saying their name rhythmically, with sensitivity to the beat of the song. This response could eventually be sung by the children, with attention to in-tune singing. In this curriculum, however, this activity is only used once as a means of initiating the children into the first music class in a relaxed, enjoyable manner.

2. A variety of musical comparatives could be taught and/or reinforced through the use of this song: high and low; fast and slow; and loud and soft. When used on a regular basis, children can be encouraged to refine the performance of these skills while participating in a musical activity because although children may be able to verbalize these concepts, it is not until they can accurately perform them that they have actually internalized their meaning. Therefore, this activity could be very effective in giving children the opportunity to sharpen these skills in an enjoyable context. This song can also be used as a tool for classroom control in that it can be used to get children into circle formation on a "musical" note without having to speak to them. Children will understand that this song signifies the end of one activity and the beginning of another without being verbally asked to do so.

3. This song has melodic qualities which are conducive to promoting in-tune singing in that it is based on the pentatonic scale, which children find easy to sing. Melodically, many patterns are repeated which makes it easier for children to hear and vocally reproduce. In order to promote in-tune singing in individuals, one child could be placed in the center of the circle as the Teddy Bear. The song will be sung by the whole class, with the child in the middle singing the "Teddy Bear" phrases (*so-mi* appears to be the easiest interval for children to hear and correctly reproduce) while the rest of the class sings the remaining phrases. It will be necessary for the teacher to keep the

pitch center clear and stable. This activity cannot be done until the children are comfortable with the teacher and with their own musical competence.

4. Continue to expand on the movement suggested in the song until the children can comfortably perform them while they sing. Gradually help the children to refine these movements until they are synchronized with the beat. Another approach would be to allow the children to move freely without any suggestions from the teacher. Allowing the children to respond to the music in this manner will undoubtedly be stimulating for their imaginations. Keep in mind that this may result in the children becoming preoccupied with the movement to the extent where they are not singing. If the objective of the activity is to encourage singing, stop the movement and sing. However, if total involvement in the musical activity is the goal, allow the children to immerse themselves in their movement and do not be concerned about the reduced vocal participation.

5. The value of this song is that it provides an opportunity to end the lesson musically. As the children become comfortable with the question-response format and with their own singing voices, individualize the activity. For example, instead of singing "Good bye children", sing "Good bye Andy", with Andy singing the response on his own. This will reinforce singing skills and will help to build confidence in the children.

LESSON 2

OBJECTIVES

1. Sing a known song to get into circle formation and to reinforce various comparatives: *Can We Make a Circle?* (2-3 minutes).
2. Learn a new greeting song: *Hello, Boys and Girls* (5 minutes).
3. Review a known song with movement: *Teddy Bear* (3 minutes).
4. Learn a new poem with movement: *I See a Snowflake* (8 minutes).
5. Sing a good bye song: *Good Bye* (2 minutes).

SKILL DEVELOPMENT

COMPARATIVES

a. dynamics (louder and softer)

b. pitch (higher and lower)

c. tempo (faster and slower)

MOVEMENT

a. creative, expressive movement

b. singing games, dances

c. keeping a beat

MELODY

a. unaccompanied singing

b. conversational singing

c. pitch matching

RHYTHM AND BEAT

a. keeping a beat

GENERAL

a. development of a song repertoire

PROCEDURES

1. *Can We Make a Circle?*

a. Following the procedure outlined in lesson one (procedure #2) , get the children into circle formation. Once they are in this formation, sing the additional verses, encouraging the children to move in the way suggested by the words. For example:

Can we make it higher? (use higher singing voices)
Can we make it faster? (increase the tempo)
Can we make it quieter? (use quiet singing voices)
etc.

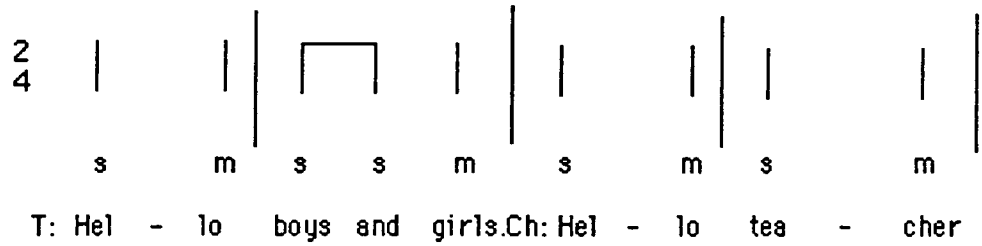
2. *Hello, Boys and Girls*

a. Once the circle has been made "just right", ask the children to sit down in their circle. Ask them to be your echo, using their speaking voices. For example:

Hello, boys and girls (T)
Hello, boys and girls (ch)
Hello, Teacher (T)
Hello, Teacher (ch)

b. Ask the children to say only "Hello teacher". Once they can perform this, say "hello" to various individuals and ask them to respond.

c. Ask the class to echo you using their singing voices. Use the interval of the minor third to form the melody of this song. For example:



d. If the children are comfortable with this, sing "hello" to various individuals and ask them to echo you using their singing voices. This will provide an opportunity to determine which children are able to match pitch and those who cannot.

3. *Teddy Bear* (Birkenshaw, 1977)

a. Ask the children to stand up in their circle. Ask one child to go into the middle of the circle and show the rest of the class how to turn around. Ask all of the children to turn around in this way. Follow this procedure with touching the ground and showing your shoe. Ask the children who they know who can do all of these actions. The answer should be "Teddy Bear". Sing the song with the action.

b. Tell the children that a Teddy Bear is needed to help all of the other

Teddy Bears remember how to do their actions. Ask one child from the group to go into the center and be this Teddy Bear. Sing the song with the actions.

c. Repeat this activity once or twice with different children being the "center" Teddy Bear. Ensure that the children are singing as they do the actions. If they are not, ask only the child in the center to do the actions while the rest of the class sings.

4. *Two Snowflakes* (Morningstar, 1986).

a. Still standing, ask the children if they know what a snowflake is. Ask one child to give his/her definition to the rest of the class (a picture of a snow flake might be useful to reinforce this definition). Can he/she tell the class what a snowflake looks like when it falls? Is it light? Heavy? Fast? Slow? Loud? Soft? Can he/she show the class how a snowflake falls. Ask another child to fall down like another snowflake that is being "wooshed" down by a storm. How would it fall? Would it be fast or slow? Ask the rest of the class to fall down like a fast or slow snowflake and to get in a circle when finished.

b. Recite the following for the children

Two Snowflakes

I see a snowflake slowly fall,
It turns and makes no sound at all.
Gently, gently, twisting 'round,
It comes to rest upon the ground.

Another one is spinning by,
This one seems to whirl and fly;
Faster, faster round it goes
Before it settles on my nose.

c. If necessary, repeat the poem. Then ask the children about the snowflakes. What was the first snowflake like? Was it fast or slow? Was the second snowflake the same as the first one? Was it fast or slow? Have two different children show the class how a fast and slow snowflake would fall.

d. Ask some of the children to be the first snowflake and to fall slowly as you say the poem. Ask another group of children to be the second snowflake and to fall that way during the second part of the poem.

e. Using a triangle, tap out a slow beat (♩= 48). Ask the children to move around like snowflakes as they listen to the triangle. Ask them if it makes them feel like moving fast or slow. If they answer "fast", ask them to explain why. If necessary, slow down the tempo. Tell the children to stop when the sound stops. Now tap out a faster beat

(♩=126) and ask the children how this makes them want to move. If the answer "slow", ask them to explain why, and if necessary, increase the tempo. Ask the children to move around like "fast" snowflakes and to stop when the sound stops.

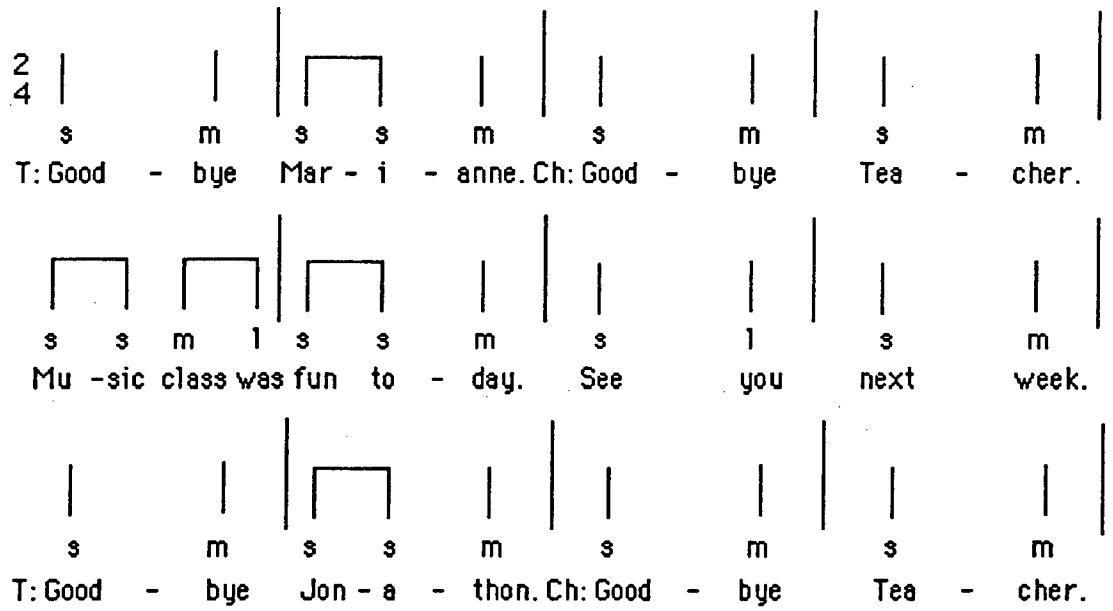
g. Alternate tempi, and ask the children to change the way they move when the sound changes. Tell them to stop when the sound stops.

h. Repeat the poem and ask the children to move in the way that the words suggest. At the end of the poem, tap the triangle slowly and ask the children to fall slowly to the ground and "melt".

5. *Good Bye Song*

a. Get the children back into circle formation by singing *Can We make A Circle?* To reinforce what they have just done, make the circle faster and slower before sitting down.

b. Sing the good bye song as suggested in lesson one. If possible, sing good bye to individual children and have them respond. For example:



MATERIALS

a. picture/model of a snowflake

b. triangle

SUGGESTIONS FOR FURTHER USE

1. See "suggestions for further use", lesson one, #2.

2. This activity should be done in every music lesson, preferably toward the beginning to serve as a "vocal warmup" and to encourage vocal involvement in the lesson. This greeting song, or some variation of it, could be used to encourage individual singing, in-tune singing, pitch matching and self-confidence about using the singing voice. As children become more comfortable with this activity and as the above skills develop, the greeting song can become increasingly complex and more refined responses can be expected of the child. This activity can also be used as a diagnostic tool as a means of determining which children are mastering the skills listed above. Children who do not demonstrate this mastery can be provided with some extra help both from the teacher and from the children who appear to be executing the task with relative ease.

3. See "suggestions for further use", lesson one, #'s 3 and 4.

4. This poem has been used only once in this curriculum as an experiential approach to introducing the concept of tempo (faster and

slower). However, there are many potential uses for this poem for later learning experiences in music. Firstly, as the words suggest, it could be used effectively to demonstrate the difference between fast and slow. Using their bodies, children can experience this as they listen to or say the poem. As the children become familiar with the poem, more refined movement could be used in response to the words. The children's suggestions for this movement should be seriously considered by the teacher. Nonpitched percussion instruments suggestive of the words could also be introduced. With time, the children could be encouraged to keep the beat with these instruments as the poem is performed. This might eventually be transformed into rhythmic ostinati which can be performed by the children. A very simple bordun played on pitched percussion could also be introduced with time. Finally, this poem could be set to a melody and sung by the children, bringing with it many more possibilities for musical learning.

5. See "suggestions for further use", lesson one, #5.

LESSON 3

OBJECTIVES

1. Sing a known song to get into circle formation and to reinforce various comparatives: *Can We Make a Circle?* (2-3 minutes).
2. Sing a known greeting song: *Hello, Boys and Girls* (3-5 minutes).
3. Perform a movement activity to reinforce the concept of fast and slow: *Alarm Clock* (3 minutes).
4. Learn a new song with movement: *Bell Horses* (8 minutes).
5. Learn a finger game with actions: *Five Little Monkeys* (5 minutes).
6. Sing a good bye song: *Good Bye* (2 minutes)

SKILL DEVELOPMENT

COMPARATIVES

a. dynamics (louder and softer)

b. pitch (high and lower)

c. tempo (faster and slower)

d. timbre

MOVEMENT

a. creative, expressive movement

b. keeping a beat

c. rhythmic precision

MELODY

a. unaccompanied singing

b. conversational singing

c. pitch matching

RHYTHM

a. keeping a beat

GENERAL

a. improvisation

b. development of a song repertoire

PROCEDURES

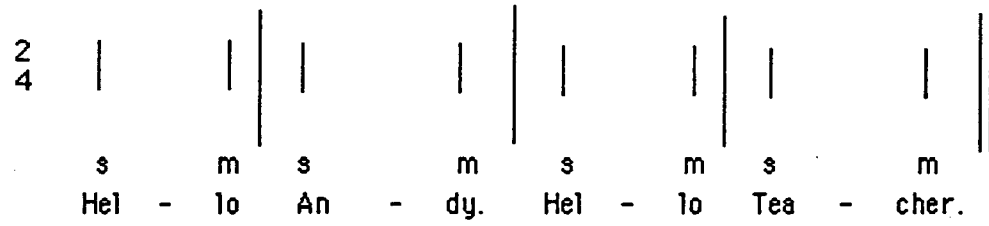
1. *Can We Make a Circle?*

a. Follow procedure #1 in lesson 2.

2. *Hello, Boys and Girls*

a. Follow procedure #2 in lesson 2, with the following addition.

b. Sing the first phrase to individual children and ask them to sing the response back to you. Encourage each child to sing in tune by suggesting that they make their voice sound like yours. For example:



3. *Alarm Clock* (Morningstar, 1986)

a. Recite the following narrative and encourage the children to move as the sound suggests:

> *Have you ever seen an alarm clock? Well,* this *is what it looks like* (show the children a clock). *Can you hear it saying TCHK TCHK TCHK TCHK TCHK? Now I'm going to set the alarm clock for a minute or two from now. There - it will make a loud ringing in a little while. Let's just step gently from foot to foot, lifting our knees high and going for a little walk around the room while the clock goes TCHK TCHK TCHK TCHK and I make this noise on the jingle ring at the same time. Now, when it rings, let's jump in the air and wave our arms and hands and heads all over the place. Are you ready for the ring to come in a minute? Keep stepping from foot to foot - remember to lift your knees high - any second now - RINNNNNNNNNNNNNNNNG!....* (shake the jingle ring quickly) *It's slowing down . . . -n-n-n-n-n-ng!* (slow down the shaking of the jingle ring). *It's stopped. Have you stopped?*

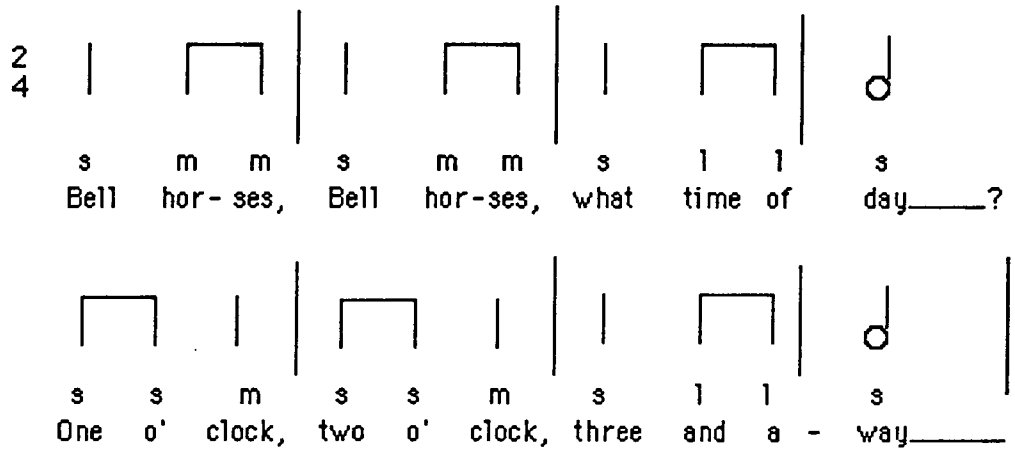
b. Ask the children how they moved while the clock was ticking. Was it fast or slow? How did they move when the alarm was ringing? Was it fast or slow?

4. *Bell Horses* (Choksy, 1974)

a. Ask the children if they have ever seen a horse. Ask one of the children to describe what a horse looks like. Other questions could include: What do horses like to eat? Do horses move fast or slow? Can they do both? Can horses make sounds? Make some of these

sounds for me. Make some high horse sounds. Now make some low ones.

b. Tell the children that you have a song to teach them about a horse. Ask them to listen to you sing it.



c. Teach the song by rote, one phrase at a time. Ask the children to "walk like horses" with their hands on their legs while they sing. Encourage them to keep a steady beat as they do this.

d. Once the children are able to sing the entire song and are accustomed to keeping the beat on their legs, ask them to stand up. In a single file, walk to the beat as the song is sung. Tell the children that they must lift their feet very high, or they will get stuck in mud. This will make walking the beat accurately much easier for the children. When the song is finished, ask the children to make some horse noises and

movements (ie. neighing, pawing ground with one foot, etc.).

e. Ask the children to walk like fast horses (♩= 108). Now try walking like slow horses (♩= 60).

f. Ask the children to sing like "high" (not tall) horses by using their high singing voices. Tell them to walk on their toes when they sing the song in this way.

g. Ask the children to sing like "low" (not short) horses by using their low singing voices. Tell them to crouch down when they sing the song in this way.

5. *Five Little Monkeys* (Rustin-Staton, 1989)

a. Get back into circle formation and ask the children to sit down. Recite the following poem for them:

Five Little Monkeys swingin' from a tree, (swing hand upside down)
Teasin' Mr. Crocodile: "you can't catch me! You can't catch me!"
Along comes Mr. Crocodile, slow as can be . . . (place hands together and slowly move them t towards the children)

SNAP!! (clap hands)

Four little monkeys swingin' from a tree. . . (swing hand upside down, with four fingers hanging down)

Three little monkeys swingin' from a tree. . . (swing hand upside down, with three fingers hanging down)

Two little monkeys swingin' from a tree. . . (swing hand upside down, with two fingers hanging down)

One little monkey swingin' from a tree. . . (swing hand upside down, with one fingers hanging down)

No little monkeys swingin' from a tree. . . (swing fist upside down)

b. Ask the children to "clap" on the word snap while you say the poem again. Then ask them to say the word and clap it while you perform the poem again.

c. Ask the children to tell you how the crocodile moves. Is it fast or slow. Tell them to listen again to find out how he moves.

d. Ask the children to say the poem with you, while they do the actions.

6. *Good Bye Song*

Follow procedure #5, lesson 2.

MATERIALS

a. Clock

b. Jingle ring

c. Jingle bells

SUGGESTIONS FOR FURTHER USE

1. See "suggestions for further use", lesson one, #2.

2. See "suggestions for further use", lesson two, #2.

3. This story represents a type of activity which could be used extensively in preschool music experiences. Although this particular story is used only once in this curriculum, its purpose is to stimulate the children's imaginations, encourage involvement in the activity and to bring about an increased understanding of the concept of faster and slower. It could be used in later lessons if the children are having difficulty with this concept, but it is suggested that musical stimuli be used for this purpose whenever possible in later lessons.

4. This is a good song for the development of various musical skills, many of which have been suggested in the above lesson plan. Continued use of this song could be used to develop an awareness of dynamic variation, tempo, high and low, body awareness and coordination. In addition, the melodic qualities of this song (based

on l-s-m; repeated patterns) make it an excellent tool for developing in-tune singing skills in young children.

5. In this curriculum, this verse is used as an experiential activity to reinforce the concept of faster and slower and does not appear in any subsequent lessons. However, it does have some possibilities for future use. For example, it could be used to demonstrate differences in tempo in future lessons, as line 3 is recited at a slower tempo than the previous two lines. The original tempo resumes at the repeat. Children could be encouraged to distinguish between the different tempi and to experiment with various different ones. Eventually, terms could be applied to each tempo. ie) lines 1-2: moderato; line 3: allegro. Such experiences will enable children to understand that music (rhythm) can be performed at different speeds and that the variation in speed can change the character of the performance.

6. See "suggestions for further use", lesson one, #5.

LESSON FOUR

OBJECTIVES

1. Sing a known song to get into circle formation and to reinforce various comparatives: *Can We Make a Circle?* (2-3 minutes).
2. Sing a known greeting song: *Hello, Boys and Girls* (3-5 minutes).
3. Perform a movement activity to introduce the concept of high and low: *Leaf Dance* (8 minutes)
4. Sing a known song with movement to reinforce the concept of high and low and other comparatives: *Bell Horses* (5 minutes).
5. Learn a new song: *Can You Clap Your Hands?* (3 minutes).
6. Sing a good bye song: *Good Bye* (2 minutes).

SKILL DEVELOPMENT

COMPARATIVES

a. dynamics (louder and softer)

b. pitch (higher and lower)

c. tempo (faster and slower)

MOVEMENT

a. creative, expressive movement

b. singing games, dances

c. keeping a beat

MELODY

a. unaccompanied singing

b. pitch matching

c. conversational singing

RHYTHM AND BEAT

a. keeping a beat

b. rhythm instruments

GENERAL

a. learning about classroom instruments

b. improvisation (body)

c. development of a song repertoire

PROCEDURES

1. *Can We Make a Circle?*

a. Follow procedure #1 in lesson 2.

2. *Hello, Boys and Girls*

a. Follow procedure #2 in lesson 2, with the following additions.

b. Sing the first phrase to individual children and ask them to sing the response back to you.

c. Using a high or low pitched voice, sing the first phrase to individual children and ask them to sing the response back to you, imitating the voice that you have used. This will give the children an opportunity to explore their "high" and "low" voices, in preparation for the next activity.

3. *Leaf Dance* (Morningstar, 1986).

a. With the children standing, ask them the following questions:

How far can you reach up - right up to the ceiling?

Let's jump and get higher up still.

Now let's do a high dance.

How near to the floor can you get?

Can you reach your whole self down to the floor?

Is any bit of you left sticking up in the air?

Is your head down there too?

Now, let's do a dance way down here.

b. Now, following the same procedure as above, add voice inflections to indicate high and low pitches. Ask the children to make some sounds with their high voices when they are stretched up high, and to make different sounds with their low voices when they are crouched down low. For example:

How far can you reach up - right up to the ceiling?

Let's jump and get higher up still.

Now let's make some high sounds (ca. 8 beats)

How near to the floor can you get?

Can you reach your whole self down to the floor?

Is any bit of you left sticking up in the air?

Is your head down there too?

Now, let's make some low sounds way down here (ca. 8 beats)

c. Using a picture or model of a leaf, ask the children to listen to your story and to watch what the leaf does. Use different voice inflections to indicate vocally what the leaf is doing.

I'm a leaf, can't you see?
Falling, falling, look at me!
Mmmmmmmmmmmmmmmmmmm!

I'm a leaf, blowing high,
See me right up in the sky!
Wheeeeeeeeeeeeeeeeeeeeeeeee!

I'm a leaf, down so low,
Rolling over, watch me go!
Yumpity Yumpity Yumpity Yumpity Yum!

I'm a leaf, in a heap,
Now I think I'll go to sleep!
Shhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhh!

d. Now ask the children to stand up and be the leaves by doing what the words tell them to do.

e. Ask the children to make the sounds in line 3 of every stanza. Ask them what kind of sound a high leaf would make (high sounds) and what kind of sounds a low leaf would make (low sounds). Perform the poem again with the children making these sounds.

4. *Bell Horses*

a. Get the children back into circle formation. Begin singing *Bell Horses* and ask them to join in when they know what the song is. Once all of the children are singing, move into single file formation (with hands joined) and begin moving around the room while singing. Encourage the children to lift their feet high. This will make walking to the beat less difficult for them.

b. Once the children are familiar with the song again and have gained a sense of the beat, ask one child to come up to the front to be the "lead horse". Give that child a set of jingle bells to shake to the beat as he/she leads the other "horses" around the room.

c. With another child leading, ask the children to sing like horses with high voices and to walk on their toes as they move around.

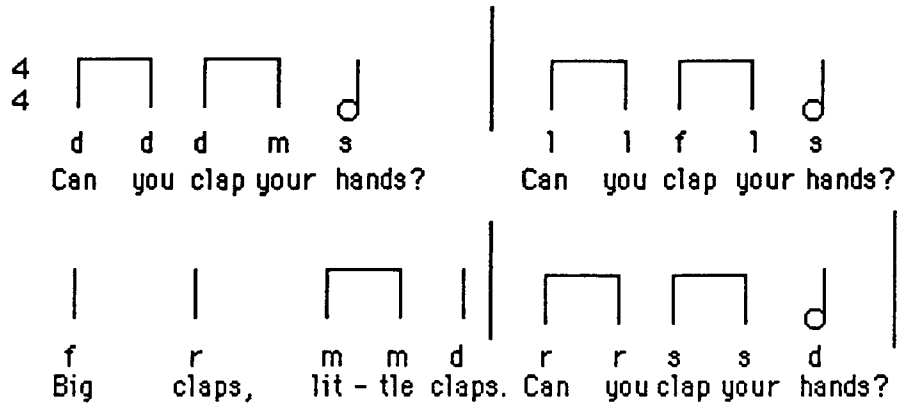
d. With a different child leading, ask the children to sing like horses with low voices and to walk down low as they move around.

e. If time permits, continue this with loud and quiet, fast and slow horses, etc.

Note: Ask the children to make horse sounds and movements each time the song is completed.

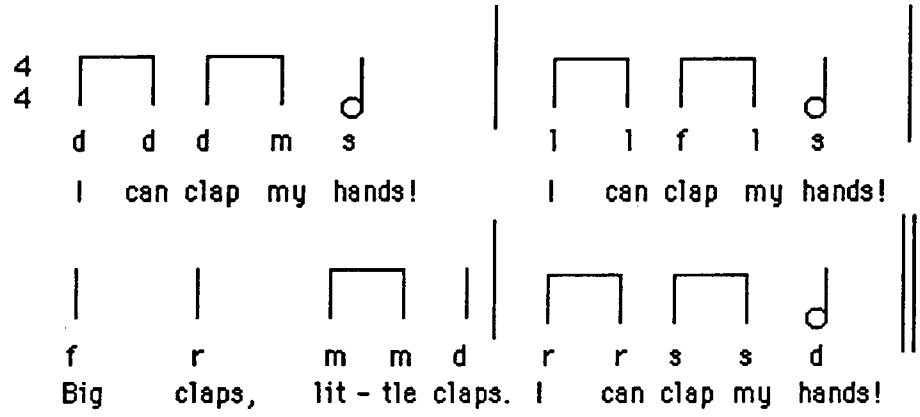
5. *Can You Clap Your Hands?* (Shieron, 1988)

a. Sing the song to the children and indicate that they should perform the actions.



b. Encourage the children to clap their hands to the beat as you sing the song.

c. Teach the song to the children by rote. When they are able to sing it, add the following response to song:



d. Sing the song together in the question-response form. If time permits, add the verse: "Can you pat your knees?".

6. *Good Bye Song*

Follow procedure #5, lesson 2.

MATERIALS

a. Picture/model of a leaf

b. Jingle bells

SUGGESTIONS FOR FURTHER USE

1. See "suggestions for further use", lesson one, #2.

2. See "suggestions for further use", lesson two, #2.

3. This poem has been used in this lesson as an isolated musical experience to reinforce the concept of higher and lower. Although

this poem is used only once in this context in this curriculum, this type of activity is effective for introducing and reinforcing various musical concepts, as it gives children an opportunity to experience these concepts both physically and intellectually. This particular poem could be expanded upon in four different ways. First, the children could add vocal inflections to the words to indicate their direction. For example, in the third line of the second stanza, they could say/sing "Wheeeeeeeeeeeeeeeeee!" at a high pitch and in the third line of the third stanza, they could say/sing "Yumpity Yumpity Yumpity Yumpity Yum" at a low pitch. Secondly, four children could perform the poem with these inflections, providing an opportunity to evaluate their understanding of higher and lower as well as a chance to express themselves in front of others. Thirdly, this poem could be set to a melody which is indicative of the words, giving the children the opportunity to explore finer distinctions between high and low. The fourth suggestion for this activity is to add various pitched and nonpitched percussion instruments to the poem to reinforce the concept of higher and lower. These suggestions could be implemented in later musical experiences to reinforce the concepts which have been laid down in this curriculum.

4. See "suggestions for further use", lesson three, #4.

5. There are many potential uses for this activity for future music lessons, as the song lends itself well to variation. As children

become more familiar with the song, it could be used as a skill-developing activity for the refinement of various musical skills as well as general body awareness and motor coordination. For example:

Can you sing up high?
Can you sing down low?
Can you sing quietly?
Can you sing loudly?
Can you nod your head?
Can you blink your eyes?
Can your hop on one foot?
Can you hop on your right foot?
etc.

This song could also be used to teach and/or reinforce the names of various classroom instruments. For example:

Can you play the woods?
Can you play the metals?
Can you play the skins?
Can you play the drum?
Can you play the wood block?
Can you play the claves?

Can you play the bells?

etc.

Finally, this activity could be used to developed improvisational skills in children. Individual children could be given some type of instrument to play. When responding to the question "Can you play?", the children would be encouraged to improvise an answer on their instrument for 8 measures.

6. See "suggestions for further use", lesson one, #5.

LESSON FIVE

OBJECTIVES

1. Sing a known song to get into circle formation and to reinforce various comparatives: *Can We Make a Circle?* (2-3 minutes).
2. Learn a new greeting song: *Dingalingaling* (3-5 minutes).
3. Learn a singing game to reinforce the concept of loud and quiet: *I Have Lost the Closet Key* (5 - 7 minutes).
4. Play a matching game to reinforce the concept of loud and quiet: *Loud and Quiet* (5-7 minutes).
5. Perform an echo exercise to develop rhythmic precision (3 minutes).
6. Sing a known good bye song: *Good Bye* (2 minutes).

SKILL DEVELOPMENT

COMPARATIVES

a. dynamics (louder and softer)

b. pitch (higher and lower)

c. tempo (faster and slower)

MOVEMENT

a. singing game

b. keeping a beat

c. rhythmic precision

MELODY

a. unaccompanied singing

b. pitch matching

RHYTHM

a. keeping a beat

b. echo movement/speech

GENERAL

a. development of a song repertoire

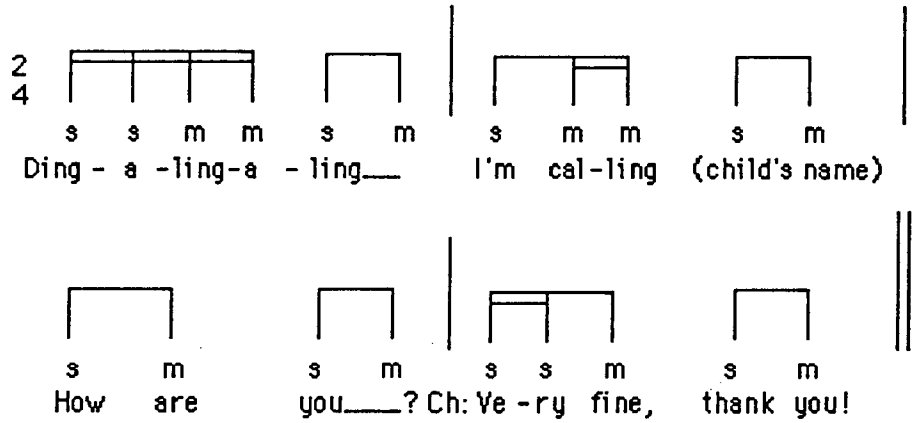
PROCEDURES

1. *Can We Make a Circle*

a. Follow procedure #1 in lesson 2.

2. *Dingalingaling*

a. Ask one of the children to demonstrate the sound of a telephone ringing (Ding-a-ling-a-ling). Tell the children that you are going to call one of them. Pick up an imaginary phone and sing the following:



b. Encourage the children to sing the response, "Very fine thank you!".

c. If the children are comfortable with the song, ask individuals to "phone" someone else in the class. The child who picks up the phone then phones another child. Continue this until several children have had an opportunity to sing by themselves.

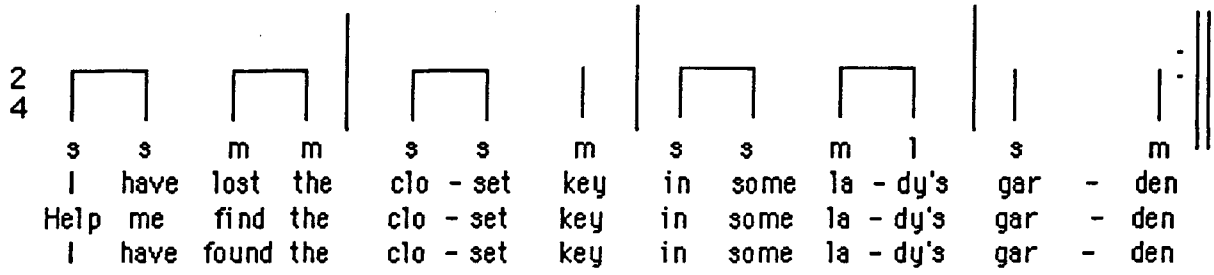
3. *Loud and Soft*

a. Explain to the children that there are things which can make loud sounds as well as things which can make quiet sounds. Hand out pictures of various items which have a characteristic loud or quiet sound that the children should be familiar with. Ask individual children to place these pictures in either the loud column or the quiet column which have been placed on a felt board.

b. Ask children if they can make the sounds made by the things in the pictures. Encourage them to make those sounds either loud or quiet, depending on what is in the picture.

4. *I Have Lost the Closet Key* (Choksy, 1974)

a. Show the children a key which is for a special closet containing musical toys and surprises. Tell the children that this is a very special key and that you carry it with you wherever you go. However, one day, as you walked through a "lady's garden" you noticed that you had lost your key. Tell the children that you sang this song to help find the key:



b. Teach the children the song by rote.

c. Ask the children to help you find the key by singing the song in the loud voice (tell them not to shout!). Do the same with quiet voices.

d. Tell the children that they are going tap play a game using their loud voices and their quiet voices. Ask one child to hide his/her eyes while you hide the keys somewhere in the room. Tell that child that he/she must try to find the keys, but that the rest of the class will help him/her find them by using their loud and quiet singing voices. When the children are singing the song quietly, that means that he/she is far away from the keys. When the children are singing the song loudly, that means that he/she is close to the keys. Once the child finds the keys, allow another child to do so.

e. Play the game several times to allow children the opportunity to explore the sound of loud and quiet voices.

5. *Echo Activity*

a. Ask children to be your echo and to repeat everything you do.

b. Create various 4-beat phrases using vocal and body sounds in addition to movement. For example:

k, k, k, k

t, t, t, t

m, m, m, m

sh, sh, sh, sh

ow, ow, ow, ow

clap, clap, clap, clap

snap, snap, snap, snap

shake, shake, shake, shake

stamp, stamp, stamp, stamp

nod, nod, nod, nod

hips, hips, hips, hips (moving hips to the beat)

bend, bend, bend, bend

twist, twist, twist, twist

high, high, high, high (on toes and using high pitched voice)

low, low, low, low (crouching and using low pitched voice)

loud, loud, loud, loud (using loud voice)

quiet, quiet, quiet, quiet (using quiet voice)

fast, fast, fast, fast (at a faster tempo)

slow, slow, slow, slow (at a slower tempo).

down, down, down, down (slowly falling)

Shhhhhhhhhhhhhhhhhhhhhhh

6. *Good Bye Song*

Follow procedure #5, lesson 2.

MATERIALS

a. Key

b. Felt board

c. Pictures of loud and quiet objects

SUGGESTIONS FOR FURTHER USE

1. See "suggestions for further use", lesson one", #2.

2. This song has many of the same qualities of the greeting song which has been used in the lessons thus far. It's tone set (*s-m*) is one which is conducive to promoting in-tune singing skills in children. In addition, it encourages the children to use their imaginations in the activity. For other pedagogical ideas, see also "suggestions for further use", lesson two, #2.

3. This activity serves as an effective visual introduction and reinforcement of the concept of loud and quiet and has potential for further use in future music lessons. Once the children have demonstrated an understanding and mastery of this task, they can draw/paint their own pictures of things which they believe to be loud and quiet. Besides visual representation of loud and quiet, the children can be encouraged to demonstrate their understanding physically by moving, singing, playing and speaking in ways which are loud and quiet. When both of these modes of understanding are mastered, the musical symbols associated with loud (*f=forte*) and quiet (*p=piano*) can be introduced into the children's vocabulary. When the children are familiar with these, the symbols can then be used as cues for how the children are to perform something. For example, they will understand they when they are asked to sing "*p*", they will sing quietly and when they are asked to sing "*f*", they will sing loudly. In time, they could be introduced to the remaining dynamic symbols as follows:

ff= fortissimo = very loud

mf= mezzoforte= medium loud

mp= mezzopiano= medium quiet

pp = pianissimo = very quiet

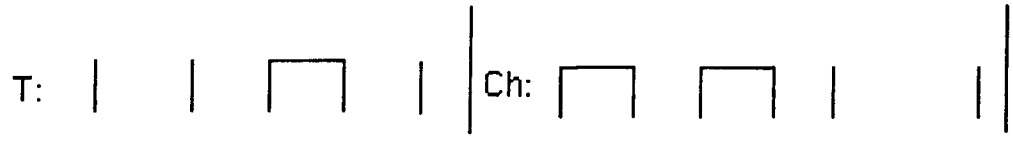
4. This activity could be used repeatedly to reinforce the concept of loud and quiet. Eventually, it could also be used to encourage and develop

in-tune singing and individual singing skills in children. For example, when the "finding" child finds the keys based on the vocal/dynamic cues provided by the class, he/she could be encouraged to sing "I have found the closet keys" by him/herself.

5. The goal of this activity is to develop in children the ability to respond accurately to rhythmic cues by reproducing them with precision. As this type of activity as exposed to the children, their ability to perform this task should become increasingly refined. As this happens, the children's rhythmic and general musical sensitivity should increase, thereby enhancing their musical development. Rhythmic imitation can eventually evolve into melodic imitation to increase perceptual development. Movement imitation could also be incorporated into this type of activity as well. As children's ability to respond and echo becomes more refined, improvisation could be introduced, thereby increasing the child's ability to communicate through the medium of music. For example:

T: snap snap snap snap ch: clap snap clap snap

or



This activity could also be used to explore the various sounds which a voice can make. Ask the children to make up some sounds of their own, then perform the exercise using these. Nonsense words created by the children could also be used in this exercise.

6. See "suggestions for further use", lesson one, #5.

LESSON SIX

OBJECTIVES

1. Sing a known greeting song: *Dingalingaling* (3 minutes).
2. Learn a new song with movement to get into circle formation: *Such a Making a Circle* (3 minutes).
3. Perform an echo exercise to develop rhythmic precision (3 minutes).
4. Perform a movement activity to develop rhythmic precision (3 minutes).
5. Learn a new poem with actions: *If I Could Play . . .* (5 minutes).
6. Become familiar with various instruments and their names: *Whose Got the Instrument?* (5-8 minutes).
7. Sing a known good bye song: *Good Bye* (2 minutes).

SKILL DEVELOPMENT

MOVEMENT

a. singing game

b. keeping a beat

c. rhythmic precision

MELODY

a. unaccompanied singing

b. conversational singing

c. pitch matching

RHYTHM AND BEAT

a. keeping a beat

GENERAL

a. learning about instruments

b. development of a song repertoire

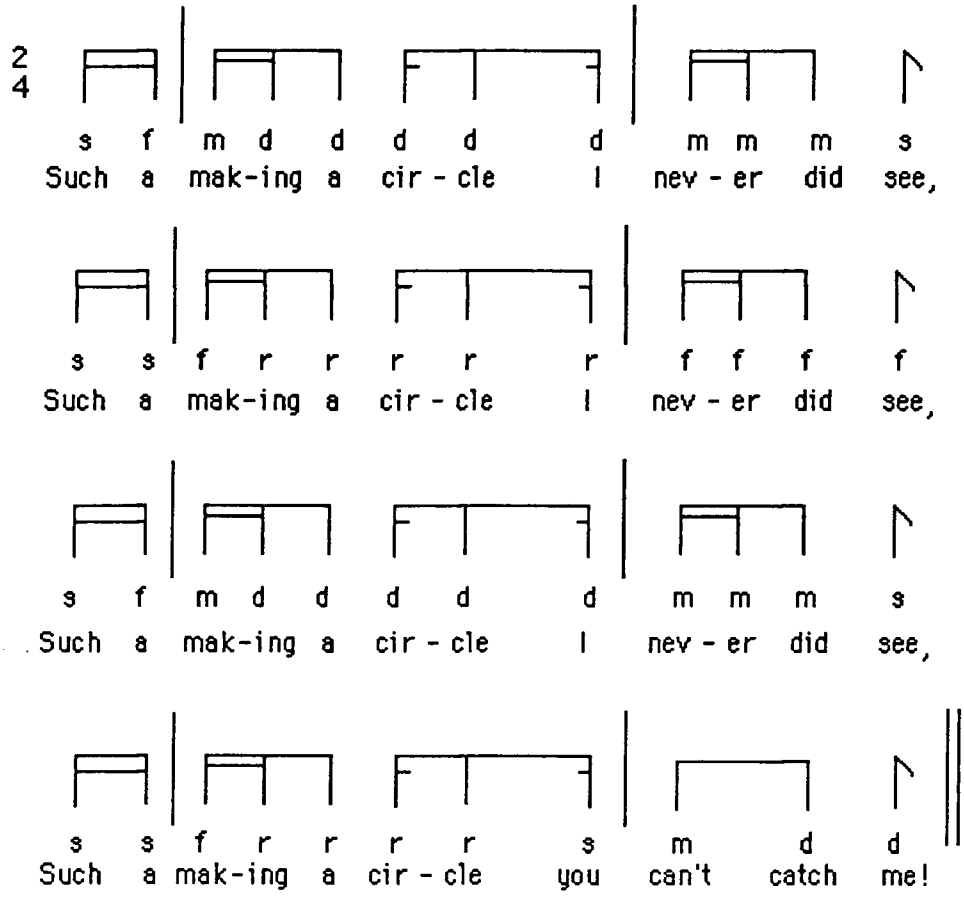
PROCEDURES

1. *Dingalingaling*

a. Follow procedure #2 in lesson 5.

2. *Such a Making Circle* (Brown, 1980)

a. Begin singing the song while walking the beat and indicate that you would like the children to get into circle formation.



2. Such a moving to the right . . .
3. Such a moving to the left . . .
4. Such a stretching to the ceiling . . .
5. Such a bending to the floor . . .
6. Such a standing still . . .

b. Ask one child to show his/her right hand. Ask all children to hold up their right hands. Tell them that they will walk in that direction while they sing the song. Sing verse two of the song with movement.

c. Ask one child to show his/her left hand. Ask all children to hold up their left hands. Tell them that they will walk in that direction while they sing the song. Sing verse three of the song with movement.

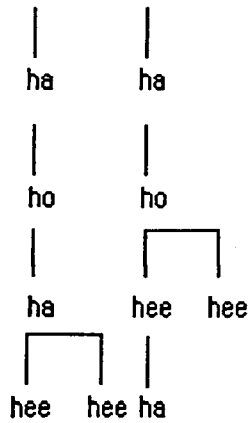
d. Sing the fourth verse of the song, demonstrating to children how to "stretch to the ceiling"

e. Sing the fifth verse of the song, demonstrating to children how to "bend to the floor".

f. Sing the sixth verse of the song very quietly to calm the children, then ask them to sing down in the floor in their circle formation.

3. *Echo Activity*

a. Ask the children to be your echo and repeat what you say. Use the following 2- and 4-beat phrases, progressing from simple to more complex. Encourage the children to repeat precisely what you say.



shoo shoo

sho sho

sho shee shee

shee shee sho

Hi there

Ho there

How are you?

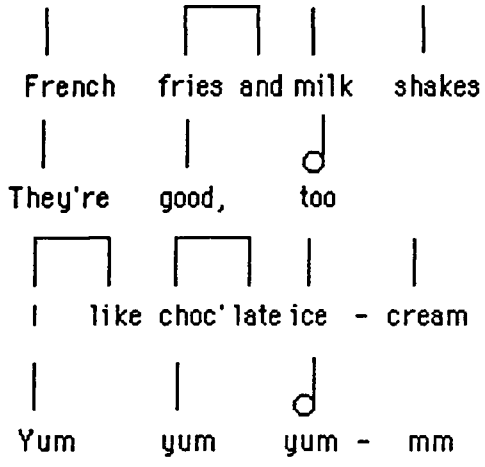
Ve - ry fine, thank you!

I like piz - za

All kinds of piz - za

Pep - per-on - i piz - za

Hot dogs, too!



4. *Movement Activity* (Wood, 1982).

a. Ask all of the children to "walk" on their laps with their hands to the sound of the drum. Ask them if the different sounds make them want to "walk" in different ways. Ask some of the children to show you their way of "walking".

b. Ask all of the children wearing "red" (choose any color) to walk with their feet to the sound of the drum and to stop when the sound stops. On a hand drum, tap out 8 beats of quarter note at a tempo the children are comfortable with.

c. Ask all of the children wearing "blue" how the new sound you are making makes them want to move. Tap out 8 beats of eighth notes at a tempo the children are comfortable with.

d. Ask all of the children wearing "yellow" how the new sound you are making makes them want to move. Ask them to move on their bums to the new sound. Tap out 8 beats of half notes at a tempo the children are comfortable with.

e. Ask all of the girls to move their feet to the new sound(s) you are making. Tap out an 8-beat rhythm pattern, combining two or more different note values (ie. quarter notes and eighth notes).

f. Ask all of the boys to move their arms to the new sound(s) you are making. Tap out an 8-beat rhythm pattern, combining two or more different note values.

5. *If I Could Play . . .* (Cromwell, Hibner & Faitel, 1983)

a. Show the children pictures of a piano, guitar, trumpet and drums. Allow the children to handle the pictures and ask them if they have ever seen these instruments before. Ask the children if they know how the instruments are played and what they sound like.

b. Tell the children that you have a story to tell them about the instruments that you would like them to listen to. Recite the following poem for them with actions:

If I could play the piano,
This is the way I would play (move fingers like playing a piano)
If I had a guitar,

I would strum the strings this way (holding guitar and strumming)
If I played a trumpet,
I'd toot to make a tune (move fingers like playing a horn)
And if I played a drum,
I'd go BOOM, BOOM, BOOM (like playing a drum)

c. Give four different children a picture of one of the instruments mentioned in the poem. Ask the children to hold up the appropriate picture when they hear it mentioned in the poem.

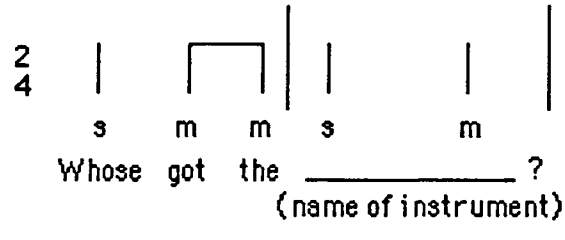
d. Repeat the above procedure with four different children, then ask the rest of the children to do the actions suggested in the poem.

e. Ask the class to say the poem with you while doing the actions.

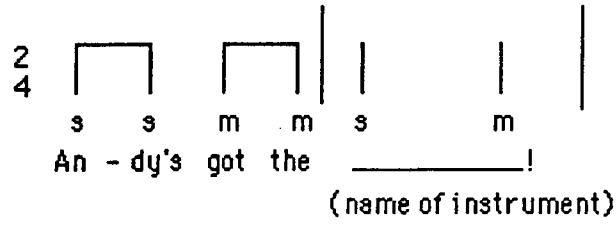
6. *Whose Got the Instrument*

a. When the children are familiar with these instruments and how they are played, give four different children the pictures of the instruments.

b. Sing the following to the class:

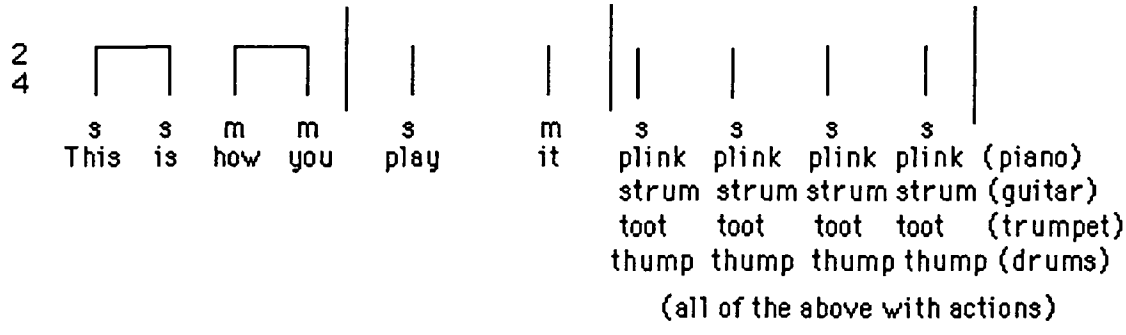


c. Encourage the children to sing:



Also encourage in-tune singing by asking the children to make their voices sound like yours.

d. Once the class has identified the instrument, tell them how the instrument is played. For example:



e. When the children are comfortable with this, sing them the first phrase as a question (How do you play it?) and allow them to respond as above.

7. *Good Bye Song*

Follow procedure #5, lesson 2.

MATERIALS

a. Hand drum

b. Pictures of a piano, guitar, trumpet and drums

SUGGESTIONS FOR FURTHER USE

1. See "suggestions for further use", lesson one, #2.

2. See "suggestions for further use", lesson five, #2.

3. See "suggestions for further use", lesson five, #5.

4. This could evolve into a creative, improvisational type of movement game. Ideally, the children should be able to move in any way they feel is appropriate and to develop imagination and creative thinking skills to make such decisions. However, this activity should also be used to develop sensitivity to various note values and rhythm patterns by encouraging the children to move in different ways to varying sounds. As the children become comfortable with this idea, they can begin to move in characteristic ways to different note values. For example, they might walk for quarter notes, run for eighth notes and hop for half notes. This would give them an opportunity to physically experience differences in note values. When the children are able to do this, durational symbols and names for these note values could be introduced to them, thus increasing the children's potential to express themselves with and through music. For example, the teacher

may say "ta ta ta ta" rather than tap quarter notes to motivate the children to "walk". She may also write the symbols on the board in the following way:

| | | |

This will give the children a visual cue about how they should move. The potential of this activity is therefore very expansive. Although this particular activity is used only once in this curriculum, as an introduction to movement in response to rhythm and timbre, the skills which it introduces the children to are used in additional lessons throughout. These experiences should prepare the children for an introduction to more sophisticated concepts described above.

5. In addition to serving as an effective prelude into *Whose Got the Instrument*, this poem could be used to further develop a sense of beat in the children. Additional instruments could also be used in the poem to serve as an introduction to a variety of other instruments into the children's vocabulary. This poem is used only once in this curriculum, serving as an introduction to *Whose Got the Instrument*. In those cases where the children have difficulty with this game, this poem could continued to be used in this manner.

6. This activity serves to introduce children to a variety of instruments from the major families of instruments (strings, brass, percussion,

woodwinds). Classroom instruments which the children have been or will be exposed to could also be used quite effectively in this game. Additional instruments of various kinds could be introduced to the children to expand the possibilities of this activity. When the children are comfortable with this, more individual singing could be encouraged, with the child singing the response to both questions sung by the teacher. Again, attention could be given to in-tune singing and pitch matching in order to provide for continued development of the children's singing skills. In addition, the actual instruments could be brought into the classroom to allow the children to see, hear and experiment with. In some cases it may be possible to arrange for "guest musicians" to bring their instruments into the classroom to perform for the children. This activity could also be easily expanded into one which could teach the concept of timbre to the children. When they are familiar with the instruments, the sounds which they produce could be introduced to the children. In time, the children may be able to identify the instrument by its sound.

7. See "suggestions for further use", lesson one, #5.

LESSON SEVEN

OBJECTIVES

1. Sing a known greeting song to get into circle formation and to reinforce various musical comparatives: *Such a Making a Circle* (3 minutes).
2. Learn a new greeting song: *Sing Me Your Name* (5 minutes).
3. Sing a known song with movement: *Can You Clap Your Hands?* (5 minutes).
4. Perform an echo exercise to develop rhythmic precision (3 minutes).
5. Create and perform a rhythmic composition using the rhythm patterns explored in the previous echo exercise (5 minutes).
6. Sing a known good bye song: *Good Bye* (2 minutes).

SKILL DEVELOPMENT

COMPARATIVES

a. dynamics (louder and softer)

b. pitch (higher and lower)

c. tempo (faster and slower)

d. timbre

MOVEMENT

a. singing game

b. keeping a beat

c. rhythmic precision

MELODY

a. unaccompanied singing

b. conversational singing

RHYTHM AND BEAT

a. keeping a beat

b. rhythm instruments

c. rhythm pattern recognition

d. rhythm patterns

GENERAL

a. learning about classroom instruments

b. development of a song repertoire

PROCEDURES

1. *Such a Making a Circle*

a. Follow the procedure outlined in lesson six to get the children into circle formation. Once this has been accomplished and the children are familiar with the song again, add the following verses:

a. Such a singing up high . . .

b. Such a singing down low . . .

c. Such a singing quietly . . .

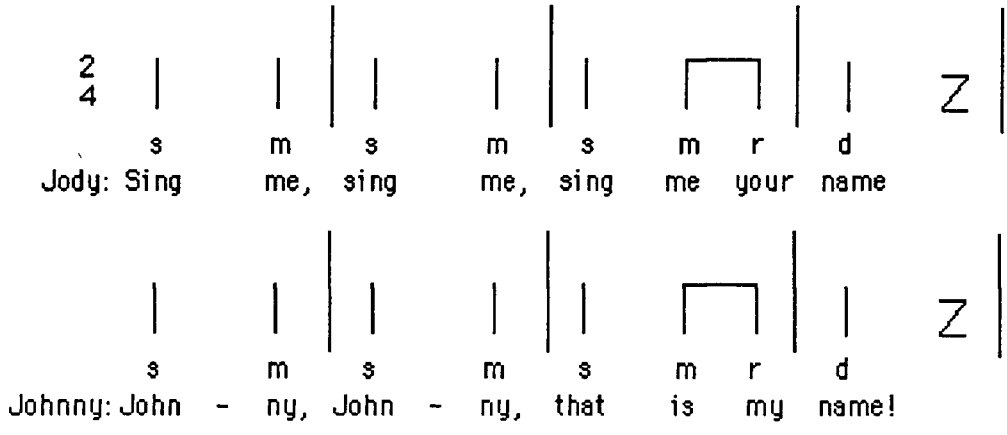
d. Such a singing loudly . . .

e. Such a moving quickly . . . (at a faster tempo)

f. Such a moving slowly . . . (at a slower tempo)

2. *Sing Me Your Name* (Tse-Perron, 1987)

a. With the children sitting in circle formation, introduce two finger puppets named "Jody" and "Johnny". Tell them that Jody and Johnny cannot talk, but that they sing everything to each other. Demonstrate to the children how they learn new names. For example:



b. With "Jody" singing the question, ask each of the children to sing their names.

3. *Can You Clap Your Hands?*

a. Review the song with the children as in lesson 4, procedure #5.

b. Once they are familiar with the song and have "clapped" and patted", add the following actions:

Can you touch your nose . . .

Can you nod your head . . .

Can you sing up high . . .

Can you sing down low . . .

Can you use your loud voice . . .

Can you use your quiet voice . . .

(Note: while the children are performing the last four verses, encourage them to pat the beat somewhere on their bodies while they sing)

c. Now introduce two or three nonpitched percussion instruments into the activity. For example, a drum, a triangle and a wood block. After explaining the names of these instruments and how they are played, give them to individual children. Then add the following verses:

Can you play the block . . .

Can you play the triangle . . .

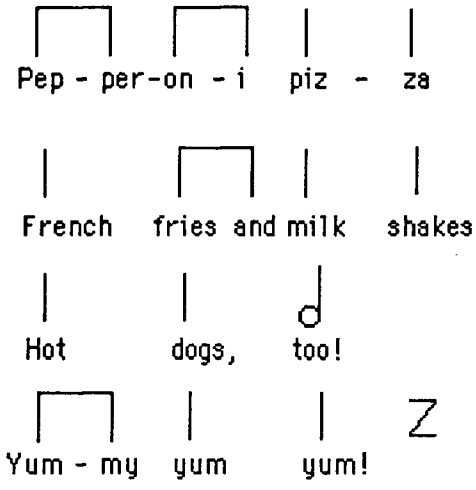
Can you play the drum . . .

d. Ask all of the children to pretend that they are playing the instrument being sung about. Have all of the children sing the response "I can play the . . .".

4. *Echo Activity*

a. Using the rhythm patterns suggested in the previous lesson, perform an echo activity. Repeat the following patterns several times with the children, using variations in vocal inflections to maintain the children's interest and to allow them an opportunity to explore their

own voices.



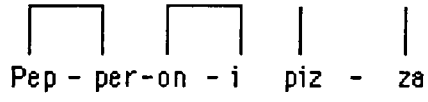
b. Once the children are comfortable with these patterns, ask them to clap and say the words when they echo.

c. If the children are able to do this with confidence, ask them to keep the words in their heads and clap them with their hands. (This is a sophisticated task which may be very difficult for some children. Do not pursue it unless they demonstrate sufficient coordination and understanding of the activity).

5. *Rhythmic Composition*

a. Show the children pictures of pizza, hot dogs, french fries and milkshakes, and of someone licking his/her lips. Ask the children to say the corresponding rhythm pattern as the pictures are presented.

b. Place the pictures on the board/wall. Point to them and ask the children to say the corresponding rhythm pattern. For example, when pointing to the pizza, ask the children what it sounds like. They should respond:



c. When the children are comfortable with this, put the pictures in a different order and ask them to say what the pictures suggest. Ask individual children to place the pictures in any order they like and then instruct the rest of the class to say the rhythm patterns in this order. Ask the class what their favorite order is and then say and clap it in that way. If it is possible, have the children say the words "in their heads" and clap the rhythm pattern.

6. *Good Bye*

a. Follow procedure #5, lesson 2.

b. Add the use of various voice inflections and ask the children to echo you. For example, use a high or low pitched voice or a quiet or loud voice. This will require increased attention from the children and will give them an opportunity to explore their own voices.

MATERIALS

a. Finger puppets

b. Triangle

c. Hand drum

d. Wood block

e. Pictures of pizza, hot dogs, french fries and milk shakes and a person licking his/her lips.

SUGGESTIONS FOR FURTHER USE

1. See "suggestions for further use", lesson one, #2.

2. See "suggestions for further use", lesson five, #2.

3. See "suggestions for further use", lesson 4, #5.

4. See "suggestions for further use", lesson five, #5.

5. This activity has considerable potential for expansion in a preschool music classroom. First, it can be used to develop the ability to distinguish between various patterns which are made up of long and short sounds. Eventually, these sounds can be labeled and given symbols. For example, the pattern "pepperoni pizza" is comprised of long and short sounds. Once the children have physically experienced this pattern and are able to say, clap, pat, stamp, etc. it, they will be ready to learn more about the tools which make it up. They can learn

that "ta" (quarter note) represents the long sounds and "ti-ti" (eighth notes) represents the short sounds. They can also be taught the symbols for these sounds. The children can then put these symbols into their own combinations. Other symbols can also be introduced, such as the half note and the quarter rest. Secondly, this activity gives children an opportunity to explore musical form by exposing them to "same" and "different" rhythm patterns. In addition, once they understand that music is made up of patterns and that these patterns can be combined in various different ways, they can put together their own simple compositions. For example, they could explore how many ways two different patterns can be put together (AB; ABA; AABB; etc). Eventually, these patterns could become longer and more complex. Through these processes, children are learning analysis skills which will increase their understanding of music and their ability to use it to express themselves.

6. See "suggestions for further use", lesson one, #5.

LESSON EIGHT

OBJECTIVES

1. Sing a known greeting song to get into circle formation and to reinforce various musical comparatives: *Such a Making a Circle* (3 minutes).
2. Sing a known greeting song: *Sing Me Your Name* (3 minutes).
3. Sing a known singing game: *I Have Lost the Closet Key* (5 minutes).
4. Perform an echo exercise to develop rhythmic precision (2 minutes).
5. Learn a new poem with actions: *There Was a Little Turtle* (5-7 minutes).
6. Play a known game to review four instruments and to learn the names of two new ones: *Whose Got The Instrument?* (5 minutes).
7. Sing a known good bye song: *Good Bye* (2 minutes).

SKILL DEVELOPMENT

COMPARATIVES

a. dynamics (louder and softer)

b. pitch (higher and lower)

c. tempo (faster and slower)

MOVEMENT

a. singing game

b. keeping a beat

c. rhythmic precision

MELODY

a. unaccompanied singing

b. pitch matching

c. conversational singing

RHYTHM AND BEAT

a. keeping a beat

GENERAL

a. learning about instruments

b. development of a song repertoire

PROCEDURES

1. *Such a Making a Circle*

a. Follow procedure in lesson seven, #1.

2. *Sing Me Your Name*

a. Sing the first phrase of the song to one of the children and ask him/her to respond to it by singing his/her name.

b. Ask that child to sing the first phrase of the song to the child next to him/her. That child will then sing the response and will go on to sing the first phrase of the song to the child sitting next to him/her. Continue this procedure until all of the children have sung.

c. Encourage the children to sing in tune while they perform this song. It may be necessary to reestablish the pitch as the song moves around

the circle.

3. *I Have Lost the Closet Key*

a. Show the children the key which you presented to them in lesson five. Ask them if they remember what it is for. If necessary, repeat the story of how you lost this key in a lady's garden and sing the song you used to find it.

b. Review the song with the children. Sing the song in loud voices and in quiet voices. When they are comfortable with this, play the game as in lesson five, procedure #4.

4. *Echo Activity*

a. Present this activity to the children in the same manner as lesson five, procedure #5 using the following rhythm patterns:

snap snap

clap clap

Tur - tle, Tur - tle

snap snap

clap clap

Mos-qui - to, Mos-qui - to

snap snap

clap clap

Flea Flea Flea Flea

snap snap

clap clap

Min - now, Min - now

b. Clap and say the rhythm patterns and ask the children to echo you in this manner.

5. *There Was a Little Turtle* (Tse-Perron, 1987)

a. Tell the children that you are going to tell them a story about an animal and that you want them to guess what kind of animal it is. Tell them that it is green and has four legs and carries its house around on its back. Encourage children to tell you it is a turtle.

b. Form a turtle using both hands, with the thumb of one hand extended (the head of the turtle) and the palm of the other hand covering it up (the shell of the turtle). Show the children how the head of the turtle moves.

c. Using actions recite the following poem for the children.

There was a little turtle (make turtle with hands- see below)
who lived in a box (shape box in air with fingers)
He swam in the water (make swimming motions with hands)
and he climbed on the rocks (make climbing motions with hands)
He snapped at a mosquito (clap on "snapped")
He snapped at a flea (clap on "snapped")
He snapped at a minnow (clap on "snapped")
and he snapped at me (clap on face on "snapped")
He caught the mosquito (clap on "caught")
He caught the flea (clap on "caught")
He caught the minnow (clap on "caught")
but he didn't catch me! (shake finger)

d. Ask children to say the words "snapped" and "caught" when you recite them in the rhyme and to clap on those words.

e. Say the entire rhyme together with children doing actions

f. Ask children to make some "mouth" sounds for the words "snapped" and "caught" and have them demonstrate them for the class. Use these sounds in place of the words when the rhyme is repeated by the class. Encourage children to experiment with many different mouth sounds to be used in the performance of the rhyme.

6. *Whose Got the Instrument?*

a. Review the instruments as they were presented in lesson 6, procedure #6.

b. Introduce two new instruments: the violin and the harp. The sounds for these instruments are "bow . . ." and "pluck . . ." respectively.

c. Play the game with the children as in lesson six, procedure #6.

7. *Good Bye Song*

a. Follow procedure #6, lesson 7.

MATERIALS

a. Key

b. Pictures of a piano, guitar, trumpet, drums, violin and harp.

SUGGESTIONS FOR FURTHER USE

1. See "suggestions for further use", lesson one, #2.

2. See "suggestions for further use", lesson five, #2.

3. See "suggestions for further use", lesson five, #4.

4. See "suggestions for further use", lesson five, #5.

5. This activity is used only once in this curriculum to reinforce rhythmic precision skills. However, it could be used in later lessons or in subsequent curricula in the following ways. First, different timbres could be explored by allowing the children to investigate various non-pitched percussion instruments to represent the sounds suggested in the rhyme. First, allow the children to make up a number of vocal sounds to represent the words "snap" and "caught". The children could then experiment with various instruments as representative sounds. For example, woods could be used as "snapping" sounds and skins could be used as "catching" sounds. At a later time, woods could be used to represent the "flea" and the "turtle"; metals for the "minnow" and skins for the "mosquito".

Finally a variety of different timbres could be explored to represent all of the sounds suggested by the poem. For example:

Turtle	sand blocks
Box	wood block
Water	jingle ring
Rocks	tic-toc block
Mosquito	cabasa
Flea	guiro
Minnow	triangle

Exercises of this nature would serve as an effective introduction or reinforcement of various timbre. In all of the cases suggested above, however, the children should be encouraged to choose the timbre on their own. They should be allowed to use their imaginations and to exercise their own level of musical judgment in this type of exercise and therefore, the teacher should not impose his/her ideas about what a turtle should sound like.

In addition to these exercises, increasingly refined body movements could be incorporated into the performance of the poem, thus involving children on various different levels. For example, different body movements could be used to represent the sounds suggested in the rhyme such as knee slapping for the turtle, shoulder tapping for the flea, hip swinging for the minnow and clapping for the mosquito.

Finally, the echo exercise suggested in procedure #4 could be adapted as an ostinato to be performed as the poem is recited with or without the above activities.

6. See "suggestions for further use", lesson six, #6.

7. See "suggestions for further use", lesson one, #5.

LESSON NINE

OBJECTIVES

1. Sing a known greeting song to get into circle formation and to reinforce various musical comparatives: *Can We Make a Circle?* (3 minutes).
2. Sing a known greeting song: *Sing Me Your Name* (3 minutes).
3. Introduce the concept of melodic direction using a musical story: *Here I Am* (10 minutes).
4. Sing a known song with movement: *Bell Horses* (5 minutes).
5. Sing a known good bye song: *Good Bye* (2 minutes).

SKILL DEVELOPMENT

COMPARATIVES

a. dynamics (louder and softer)

b. pitch (higher and lower)

c. tempo (faster and slower)

MOVEMENT

a. singing game

b. keeping a beat

c. rhythmic precision

MELODY

a. unaccompanied singing

b. conversational singing

g. Melodic patterns

RHYTHM AND BEAT

a. keeping a beat

b. rhythm instruments

GENERAL

a. learning about classroom instruments

PROCEDURES

1. *Can We Make a Circle?*

a. Follow procedure in lesson two, #1.

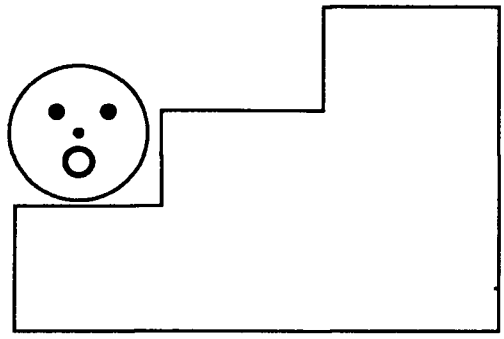
2. *Sing Me your Name*

a. Follow procedure in lesson eight, #2.

3. *Here I Am*

a. With the children sitting in a circle on the floor, show them a large picture of a set of stairs. Next, introduce them to a character - Happy Hopscotch - who is learning how to walk up and down these stairs. Tell the children that he is quite confused about how to do this and requires their help. Happy's dilemma is that he doesn't understand the difference between up and down and standing still. He therefore asks for the children's assistance in learning this task.

b. Place Happy at the bottom of the staircase and ask the children which direction he can go. For example, ask them if he can move down from that position. If not, which direction can he go?



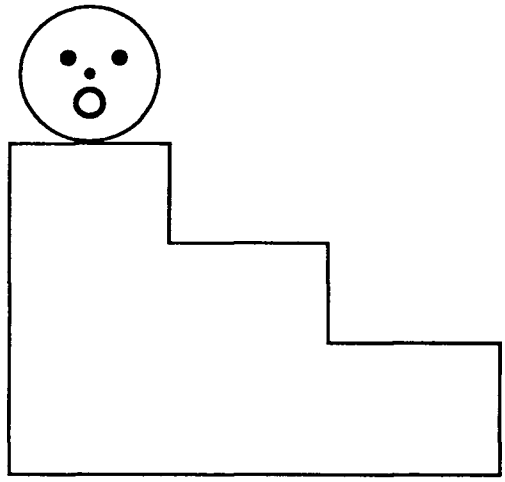
c. Tell the children that Happy needs something to help him remember to go up when he is at the bottom of the stairs. Tell them that you will give Happy a song to sing to remind him of which direction to go. Sing the following and ask the children to repeat after you:

d. Show the children how Happy moves up to the top of the stairs as he sings the song. Demonstrate this several times and ask individual children to help Happy get up to the top by singing the song for him.

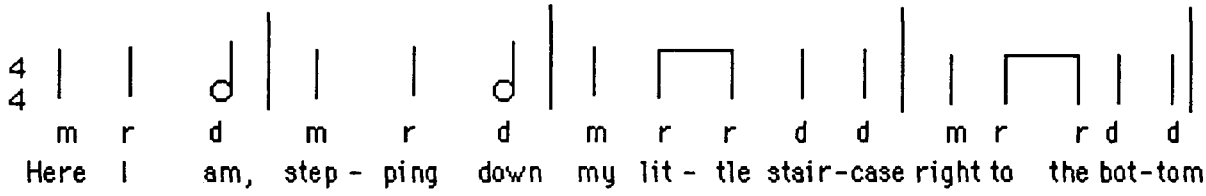
e. Ask the children to stand up and pretend that they are climbing up the stairs as they sing the song. Practice this several times, until the children demonstrate that they understand.

f. Ask the children what direction the song moves in. Does it move up? Does it move down? Sing the song very slowly and allow the children to determine whether the song moves up or down. Once they have done this, demonstrate that as the song moves up, Happy moves up the stairs. Allow several children to move Happy up the stairs as they sing the song.

g. Now place Happy at the top of the stairs and ask the children which direction he can move in. Can he move up? Can he move down? Which way should he move from the top of the stairs.



h. Tell the children that you have a song to help him find out which direction to go. Sing the following for them and ask them to repeat after you:

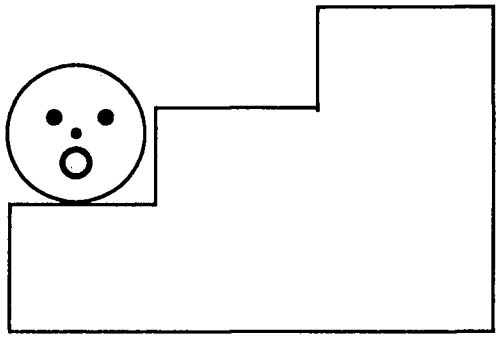


i. Show the children how Happy moves down to the bottom of the stairs as he sings the song. Demonstrate this several times and ask individual children to help Happy get down to the bottom by singing the song for him.

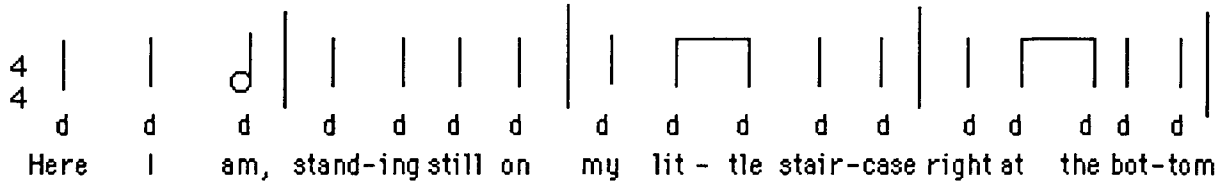
j. Ask the children to stand up and pretend that they are climbing down the stairs as they sing the song. Practice this several times, until the children demonstrate that they understand.

k. Ask the children what direction the song moves in. Does it move up? Does it move down? Sing the song very slowly and allow the children to determine whether the song moves up or down. Once they have done this, demonstrate that as the song moves down as Happy moves down the stairs. Allow several children to move Happy down the stairs as they sing the song.

l. Tell the children that Happy does not have to move and can stand still on the stairs.



m. Tell the children that this is the song that Happy can sing when he is just standing still. Sing the following and ask the children to repeat after you:



n. Ask the children what direction the song moves in. Does it move up? Does it move down? Does it stand still? Sing the song very slowly and allow the children to determine whether the song moves up, down or stays on one pitch. Once they have done this, demonstrate that the song stays on one note when Happy stands still. Allow several children to hold Happy on the bottom step as they sing the song.

o. This procedure could also be followed with Happy standing on the middle or bottom step, singing the song on *re* or *mi*, respectively.

4. *Bell Horses*

a. Follow procedure outlined in lesson 4, #4.

b. Once the children are familiar with the song and are able to walk around as they sing it, add the following instructions.

c. Pretend that you are race horses. How do race horses move? (Prompt the children to answer "fast"). Let's sing the song and move like race horses. (Play a wood block to establish the tempo and encourage the children to walk in this way).

d. Pretend that you are very old horses. How do these horses move? (Prompt the children to answer "slow"). Let's sing the song and move like slow horses. (Play a wood block to establish the tempo and encourage the children to walk in this way).

e. Let's pretend that we are farm horses. We'll be very loud as we go into the barn and we'll wake up the farmer's wife. Let's sing the song and move like loud farm horses. (Encourage the children to use their loud singing voices, not their shouting voices).

f. Let's pretend that we are ponies. Do ponies make very loud sounds? Let's sing the song and move like very quiet ponies. (Be sure that the children are singing and not whispering).

g. Let's pretend that we are silent horses and we'll sing the song in our heads. We'll still move like horses and make our horse sounds at the end. When you are finished, very quietly sit down.

5. See "suggestions for further use", lesson one, #5.

MATERIALS

a. Mountable picture of a set of 3 stairs.

b. Large round chip or plate to move on the stairs.

c. Jingle bells

d. Wood block

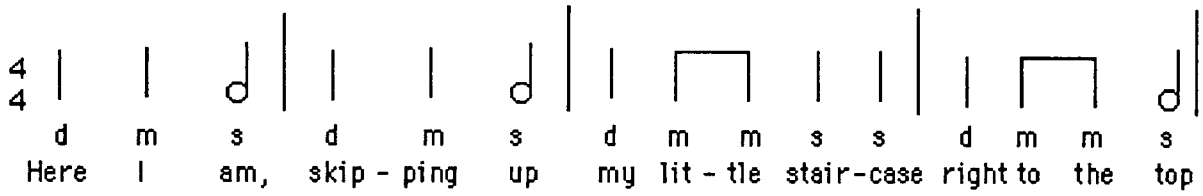
SUGGESTIONS FOR FURTHER USE:

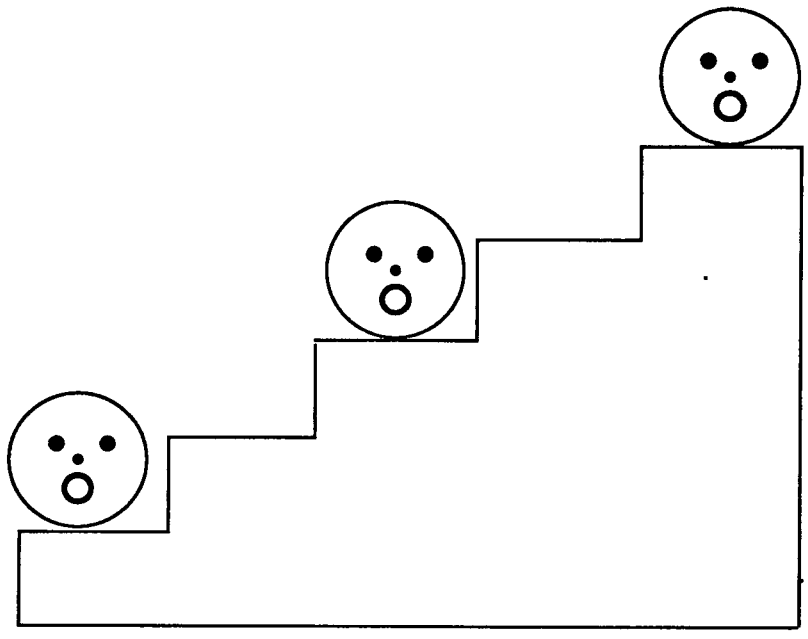
1. See "suggestions for further use", lesson one, #2.

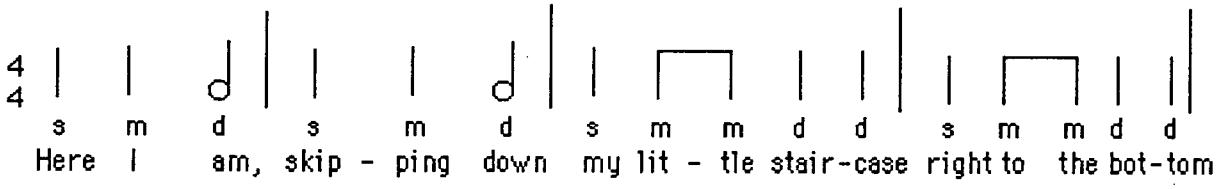
2. See "suggestions for further use", lesson five, #2.

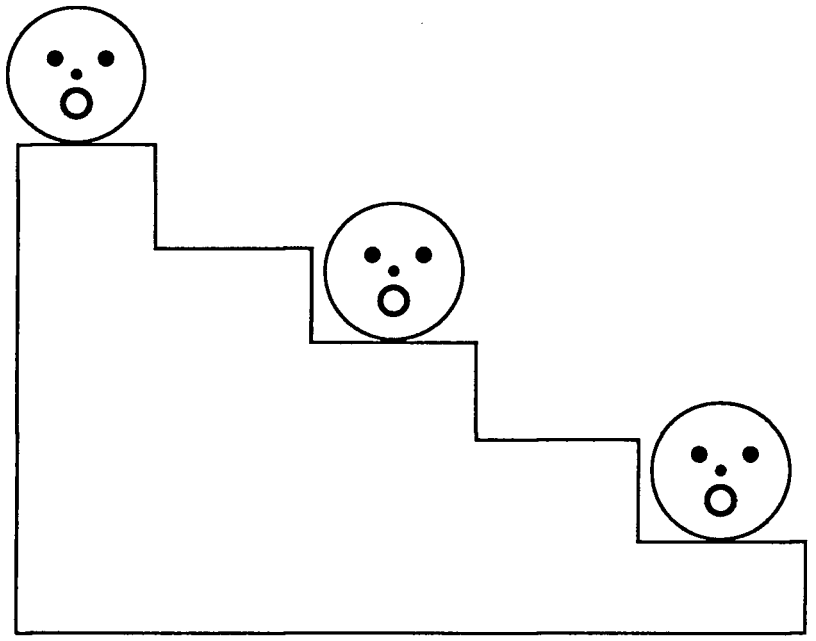
3. The purpose of this activity is to introduce the concept of melodic direction to children. Although this concept is usually taught using the melodic interval of the minor third (Choksy, 1974, 1981) this approach focuses on the "*do re mi*" melodic pattern to teach this skill. In this researcher's experience, this approach has proven more useful and successful for teaching 4-year-old children this aspect of melodic direction, and lends itself very well to the following suggestions. First, when the children can distinguish between the

melodic patterns visually and are able to sing them accurately, they can also be taught to recognize them by their aural characteristics. For example, one of the patterns could be sung or played by the teacher on a pitched percussion instrument and the children could identify which pattern it is. Secondly, the children could explore playing these patterns on pitched percussion instruments on their own. All but three bars could be removed from the instrument and the children could be encouraged to discover for themselves how to produce the melodic patterns that they have learned. These melodic patterns could also be used as an introduction to solfege. The children could be taught that when Happy steps up, he's singing *do re mi* and when he is stepping down he is singing *mi re do* . When he stands still on the bottom step he sings *do do do*, on the middle step he sings *re re re* and on the top step he sings *mi mi mi*. In time, these patterns could be transferred from the stairs to the staff lines, thus introducing children to the concept of reading music and notation. In addition, when the children are familiar with how these patterns are notated, they could experiment with melodic form using the same procedure outlined in lesson seven, procedure #5. Finally, this activity could lead into other melodic patterns. For example, instead of "stepping up" or "down" , Happy Hopscotch could "skip up" or "down" using the following melodies and diagrams:


4
4
d m s d m s d m m s s d m m s
Here I am, skip - ping up my lit - tle stair-case right to the top




4
4
s m d s m d s m m d d s m m d d
Here I am, skip - ping down my lit - tle stair-case right to the bot-tom



These melodic patterns could be used in any of the ways suggested above to stimulate aural and visual recognition of melodic patterns, introduce/reinforce pitched percussion instruments, solfege, staff notation and form.

4. See "suggestions for further use", lesson 3, #4.

5. See "suggestions for further use", lesson one, #5.

LESSON TEN

OBJECTIVES

1. Sing a known greeting song to get into circle formation and to reinforce various musical comparatives: *Such a Making a Circle* (3 minutes).
2. Sing a known greeting song: *Hello, Boys and Girls* (3 minutes).
3. Learn a new song with movement: *Oh, How I Love to Sing* (4 minutes).
4. Perform an echo activity to develop rhythmic precision (2 minutes).
5. Create and perform a rhythmic composition using the rhythm patterns explored in the previous echo exercise (5 minutes).
6. Review the melodic patterns introduced in lesson nine (5 minutes).
7. Sing a known good bye song: *Good Bye* (2 minutes).

SKILL DEVELOPMENT

COMPARATIVES

a. dynamics (louder and softer)

b. pitch (higher and lower)

c. tempo (faster and slower)

d. timbre

MOVEMENT

a. creative, expressive movement

b. singing game

c. keeping a beat

d. rhythmic precision

MELODY

a. unaccompanied singing

b. conversational singing

c. melodic pattern recognition

RHYTHM AND BEAT

a. keeping a beat

b. rhythm instruments

c. rhythm pattern recognition

GENERAL

a. learning about classroom instruments

b. development of a song repertoire

PROCEDURES

1. *Such a Making a Circle*

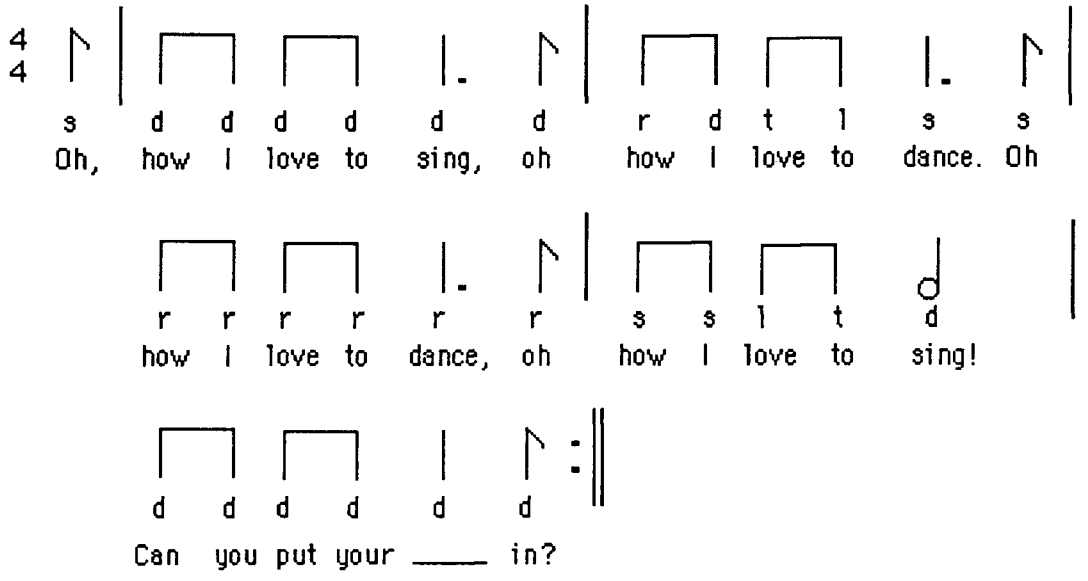
a. Follow procedure in lesson seven, #1.

2. *Hello, Boys and Girls*

a. Follow procedure in lesson three, #2.

3. *Oh, How I Love to Sing!* (Kemp, 1983)

a. Tell the children that you have a song to teach them about dancing and singing. Ask them to listen to you sing the first 4 bars of the following song:



b. Teach the song to the children by rote, one phrase at a time.

c. Once the children know the song, ask them to stand up and sing it. Then sing it with them again. In the last bar, ask the children to put their fingers in.

d. Add the following body parts accumulatively as you repeat the song:

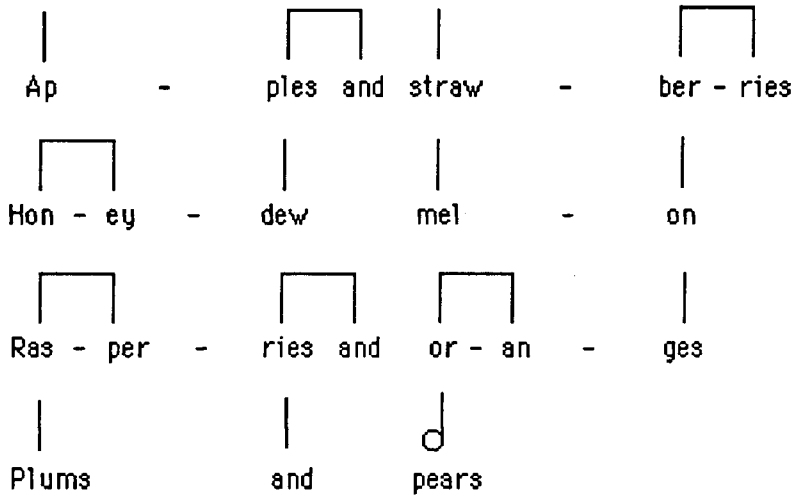
a. head
b. shoulder
c. hips
d. knees
e. feet
f. toes

e. Ask the children to suggest some parts of their bodies which could be moved in the song.

4. *Echo Activity*

a. Ask the children to be your echo and repeat what you say. Repeat the following patterns several times with the children, using variations in vocal inflections to maintain the children's interest and to allow them an opportunity to explore their own voices.

Hee	hee
Ho	ho
Walk	fast
Walk	slow



b. Once the children are comfortable with these patterns, ask them to clap and say the words when they echo.

c. If the children are able to do this with confidence, ask them to keep the words in their heads and clap them with their hands. (This is a sophisticated task which may be very difficult for some children. Do not pursue it unless they demonstrate sufficient coordination and understanding of the activity).

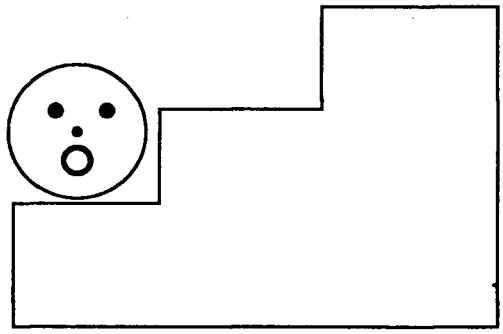
4. *Rhythmic Composition*

a. Using the same procedure as in lesson seven, #5, help the children to create various rhythmic compositions. The material for this composition will be the last 4 lines of the preceding echo exercise (apples and strawberries; honeydew melon; raspberries and oranges; plums and pears).

b. Give four children a different nonpitched percussion instrument. Ask each child to play one of the phrases of the composition. Perform the composition in this way with the rest of the class clapping and saying the words. If time permits, allow several children the opportunity to play the instruments.

5. *Here I Am!*

a. Show the children Happy Hopscotch. Ask the children whether he is standing on the bottom or top step.



b. Ask the children which direction Happy can go in. Ask them to sing the correct song to give him a hint.

c. Once the children have done this, ask one child to move Happy up the stairs as the class sings the song.

d. Place Happy on the top step. Ask the children which direction Happy can go in. Ask them to sing the correct song to give him a hint.

e. Once the children have done this, ask one child to move Happy down the stairs as the class sings.

f. Follow this same procedure for standing still on the bottom, middle and top step.

g. Now ask the children to pretend that they are Happy Hopscotch. Sing one of the short melodies and allow the children to discover which direction they should move in. Follow this procedure with all three of the melodies.

6. *Good Bye Song*

a. Follow procedure #6, lesson 7.

MATERIALS

a. 4 different nonpitched percussion instruments
b. Pictures of apples and strawberries; honeydew melon; raspberries and oranges; and plums and pears.
c. Stairs (as in lesson 9)
d. Happy Hopscotch (as in lesson 9)

SUGGESTIONS FOR FURTHER USE

1. See "suggestions for further use", lesson one, #2.

2. See "suggestions for further use", lesson five, #2.

3. In the context of this curriculum, this song has been used as an isolated experience in movement for the children. However, it has many possibilities for future use which pertain specifically to movement. As the children become familiar and comfortable with the song, increasingly complex movements can be introduced as a means of refining children's response to the music. Movement with extrinsic objects such as percussion instruments could also be performed by the children in an attempt to achieve this goal. Attention should be given to accurate performance of the beat in relation to the movements which accompany the performance of the song.

4. See "suggestions for further use", lesson five, #5

5. See "suggestions for further use", lesson seven, #5.

6. See "suggestions for further use", lesson one, #5.

LESSON ELEVEN

OBJECTIVES

1. Sing a known greeting song to get into circle formation and to reinforce various musical comparatives: *Can We Make a Circle?* (3 minutes).
2. Sing a known greeting song: *Dingalingaling* (3 minutes).
3. Learn a new song: *Hey, Hey Look at Me!* (3 minutes).
4. Review melodic patterns and play them on pitched percussion instruments (5 minutes).
5. Begin learning a new song: *Tick Tock* (5 minutes).
6. Sing a known song with movement: *Oh, How I Love to Sing* (3 minutes).
7. Sing a known good bye song: *Good Bye* (2 minutes).

SKILL DEVELOPMENT

COMPARATIVES

a. dynamics (louder and softer)

b. pitch (higher and lower)

c. tempo (faster and slower)

MOVEMENT

a. singing game

b. keeping a beat

c. rhythmic precision

MELODY

a. unaccompanied singing

b. conversational singing

c. Melodic pattern recognition

RHYTHM AND BEAT

a. keeping a beat

b. rhythm instruments

c. ostinati

GENERAL

a. learning about classroom instruments

b. development of a song repertoire

PROCEDURES

1. *Can We Make a Circle?*

a. Follow procedure in lesson two, #1.

2. *Dingalingaling*

a. Follow procedure in lesson five, #2.

3. *Hey, Hey Look at Me!* (Choksy, 1981)

a. Tell the children that they are going to learn a song about rhyming. Ask them if they know what a "rhyme" is.

b. Demonstrate examples of rhymes for the children and ask some of

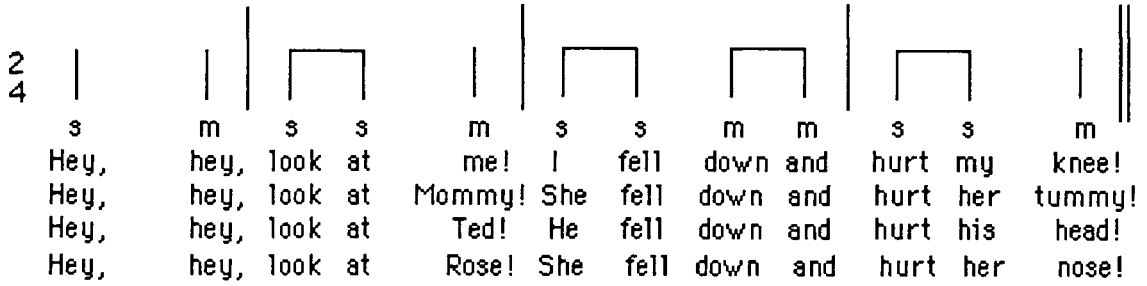
them to think of their own. For example:

Mommy -- tummy

Ted -- head

Rose -- nose

c. Sing the following song for the children using these rhymes and some of the suggestions made by the children:

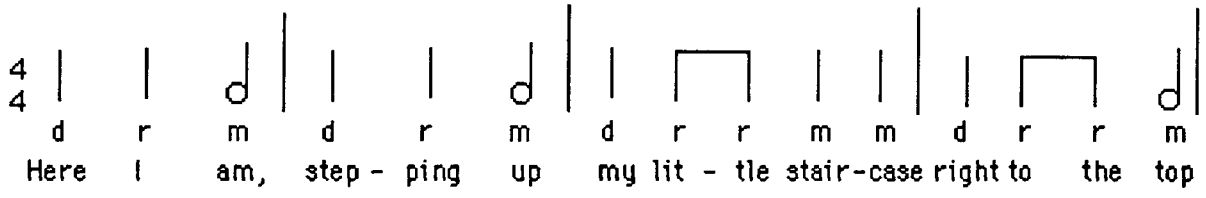


d. Ask the children if they can think of some words that will rhyme with their names.

e. Sing the song using some of the rhymes suggested by the children. In addition, present the children with words and ask them to find another word which rhymes with them.

4. *Melodic Patterns*

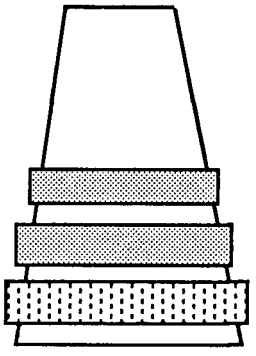
a. Show the children the stairs and Happy Hopscotch. Sing the following and ask one of the children to come and show Happy which direction he should move in:



b. Once the child has done this correctly, ask him/her to sing the above melody moving Happy in the correct direction on the stairs.

c. Follow the same procedure to review/reinforce stepping down and standing still. Use different children each time.

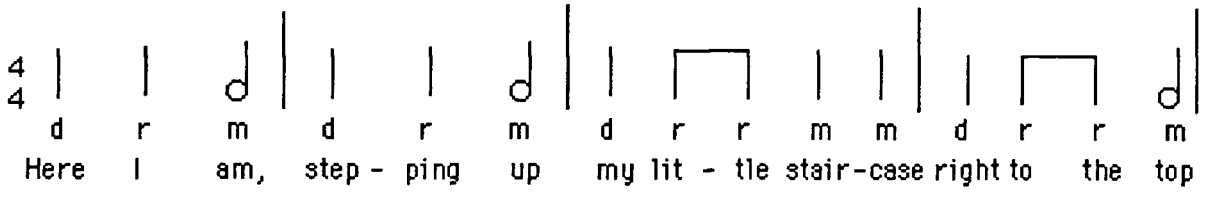
d. After removing all but the bottom three bars, show the children a glockenspiel which is tipped on its end. This will help to visually demonstrate the concept of high and low as it applies to barred instruments. For example:



e. Ask the children to point out the bottom "step" on the glockenspiel. Allow them to experiment with the instrument to solve this problem.

f. Ask the children to point out the top "step" on the instrument following the same procedure as above.

g. Ensure that the children can see what bars you are playing, then play the following melody and ask the children to tell you what it is:



h. Once they have determined what it is, ask them to sing the melody as you play it. Ask one of the children to move Happy on the stairs as the melody is played and sung.

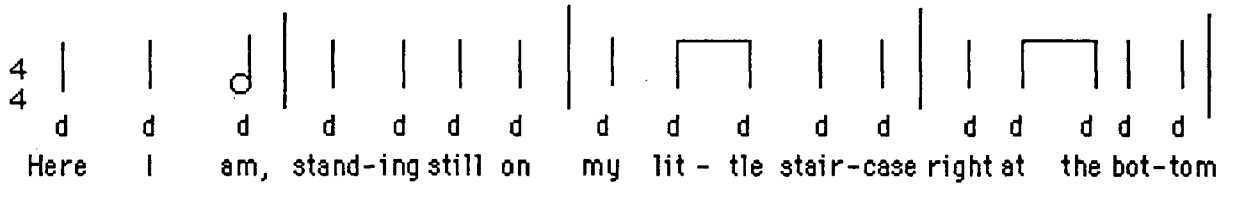
i. Ask one of the children to play "stepping up" (*do re mi*) on the instrument.

j. Play the following melody and ask the children to tell you what you are playing:

k. Once they have determined what it is, ask them to sing the melody as you play it. Ask one of the children to move Happy on the stairs as the melody is played and sung.

l. Ask one of the children to play "stepping down" (*mi re do*) on the instrument.

m. Follow this procedure with the following melody, using the bottom bar of the glockenspiel:



n. If time permits, allow the children to experiment with the three melodic patterns on the glockenspiel.

4. *Tick Tock*

a. Ask the children what sound a clock makes. Ask several children to demonstrate their sounds to the class. When one of the children says "tick tock" ask the rest of the class if they can make that sound, too.

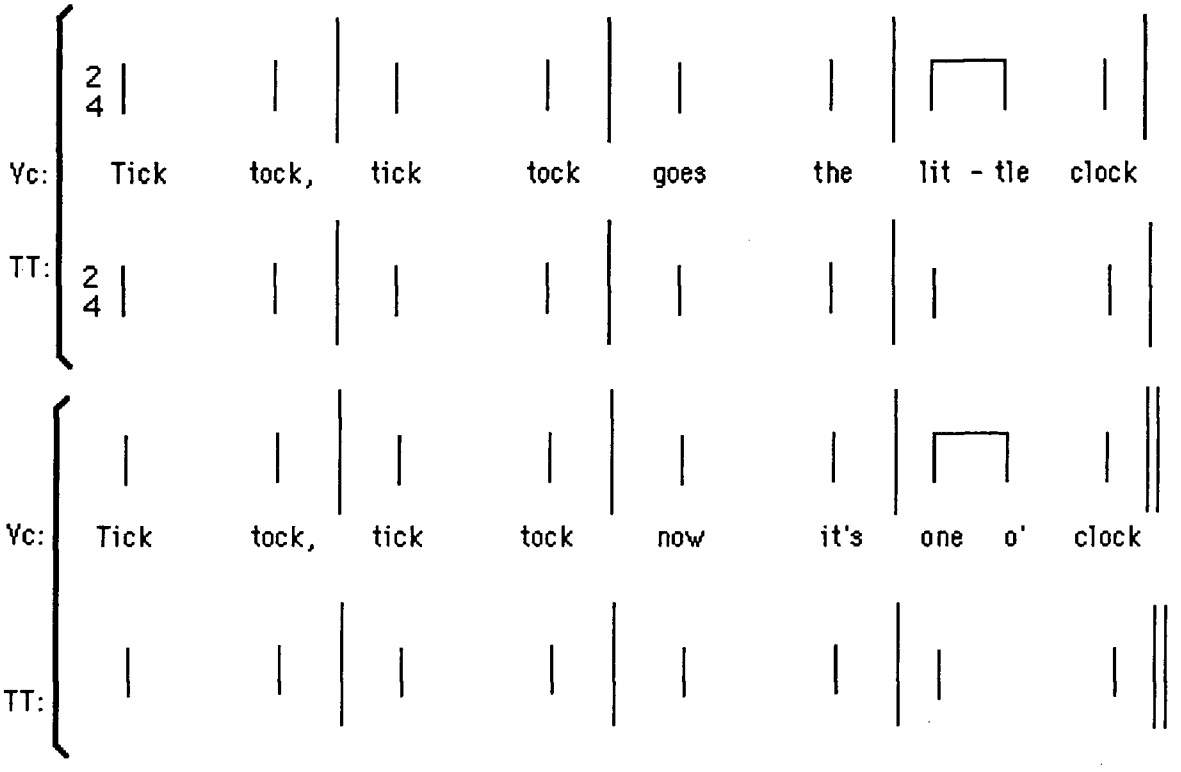
b. Using a tic-toc block, establish a tempo (♩= 69) and ask the children to make clock sounds to the beat.

c. Experiment with various different sounds when doing this. For example, make "high" tick tock sounds, "low" tick tock sounds, loud tick tock sounds, quiet tick tock sounds, etc.

d. Ask the children to sit down in their circle and tell them that you have a story about a clock to tell them. Recite the following:

Tick tock, tick tock
Goes the little clock
Tick tock, tick tock,
Now its one o'clock

d. Teach the children these words by rote. Once they know them, play an ostinato on the tic-toc block while the words are recited. For example:



Vc = voice
TT = tic-toc block

e. Ask one of the children to play the ostinato (the beat) while the rest of the class recites the words.

f. Ask all of the children to pretend they are playing the tic-toc block while they recite the words.

6. *Oh, How I Love to Sing*

a. Following the procedure outlined in lesson ten, #3 sing this song with the children. Ask the children for suggestions on which body part to add. Encourage them to move their bodies to the beat as they sing and

dance.

7. *Good Bye Song*

a. Follow procedure #6, lesson 7.

MATERIALS

a. Stairs (as in lesson 9)

b. Happy Hopscotch (as in lesson 9)

c. Soprano glockenspiel

d. Tic-toc block

SUGGESTIONS FOR FURTHER USE

1. See "suggestions for further use", lesson 1, #2.

2. See "suggestions for further use", lesson 5, #2.

3. There are several potential future uses for this song. First, it can be used as an exercise for developing and expanding children's verbal and imagination skills. Continued use of this song in a music class will allow children to use words already in their vocabulary and to find new words through the creative process of rhyming and improvisation. Secondly, this song has qualities which make it good for the development of in-tune singing in children because it is based solely on the interval of the minor third (*so - mi*) which is the easiest interval for young children to accurately reproduce. Thirdly,

individual singing can be encouraged at a later stage, when children can sing a response or an entire rhyme on their own. This not only promotes confidence in singing, but also cultivates creativity and improvisation skills. Finally, this song could be used to reinforce and develop beat-keeping skills in children by encouraging them to tap the beat on whatever body part, etc. being sung about in the song. This kind of beat-keeping encourages enthusiasm and active involvement in music which can only enhance the child's experience. In this curriculum, this song has only been used once to reinforce beat keeping skills in a context which is new and different to the children. However, in subsequent curricula for this age group, the above suggestions could be implemented for further musical learning.

4. See "suggestions for further use", lesson nine, #3.

5. Since this song is built on the interval of the minor third, it is very good for developing in-tune singing in children. Rhythmically, it is also very simple, having only quarter and eighth notes. Young children should therefore be able to clap its rhythm pattern; eventually, this song could be used as a tool for discerning and labeling the names of the quarter and eighth notes (ta and ti-ti respectively). *Tick Tock* could also be used to reinforce the difference between high and low, using high clocks and low clocks as a visual cue. As with most other songs of this nature, *Tick Tock* could also be used to help children internalize the feeling of beat. At some point, it may be possible that

half of the class recite a rhythmic ostinato to the words "tick tock tick tock" on quarter notes throughout while the other half of the class sings the song. Additionally, because this song is in the pentatonic scale, the children could be encouraged to improvise on a glockenspiel or other barred instrument using the pentatonic scale throughout as an accompaniment or, after the song has been sung, as an improvised solo. Structure could be lent to this activity by asking the child to play a "quiet" song about a clock, or a "loud" song, etc. The child must be encouraged to play with a steady beat, regardless of what he/she plays.

6. See "suggestions for further use", lesson ten, #3.

7. See "suggestions for further use", lesson one, #5.

LESSON TWELVE

OBJECTIVES

1. Sing a known greeting song to get into circle formation and to reinforce various musical comparatives: *Such a Making a Circle* (3 minutes).
2. Sing a known greeting song: *Sing Me Your Name* (3 minutes).
3. Review various instruments by playing a known singing game: *Whose Got the Instrument?* (5 minutes).
4. Finish learning a new song: *Tick Tock* (5 minutes).
5. Create and perform a rhythmic composition (7 minutes).
6. Sing a known good-bye song: *Good Bye Song* (2 minutes).

SKILL DEVELOPMENT

COMPARATIVES

a. dynamics (louder and softer)

b. pitch (higher and lower)

c. tempo (faster and slower)

d. timbre

MOVEMENT

a. singing game

b. keeping a beat

c. rhythmic precision

MELODY

a. unaccompanied singing

b. conversational singing

RHYTHM AND BEAT

a. keeping a beat

b. rhythm instruments

c. rhythmic pattern recognition

GENERAL

a. learning about classroom and other instruments

b. development of a song repertoire

PROCEDURES

1. *Such a Making a Circle*

a. Follow procedure in lesson seven, #1.

2. *Sing Me your Name*

a. Follow procedure in lesson eight, #2.

3. *Whose Got the Instrument?*

a. Show the children pictures of a piano, trumpet, violin, guitar, harp and drums. Review the names of these instruments, the sounds that they make and how they are played.

b. Introduce a new instrument to the children: the saxophone. Tell the children its name, its sound and how it is played.

c. Play the game as in lesson 6, procedure #6.

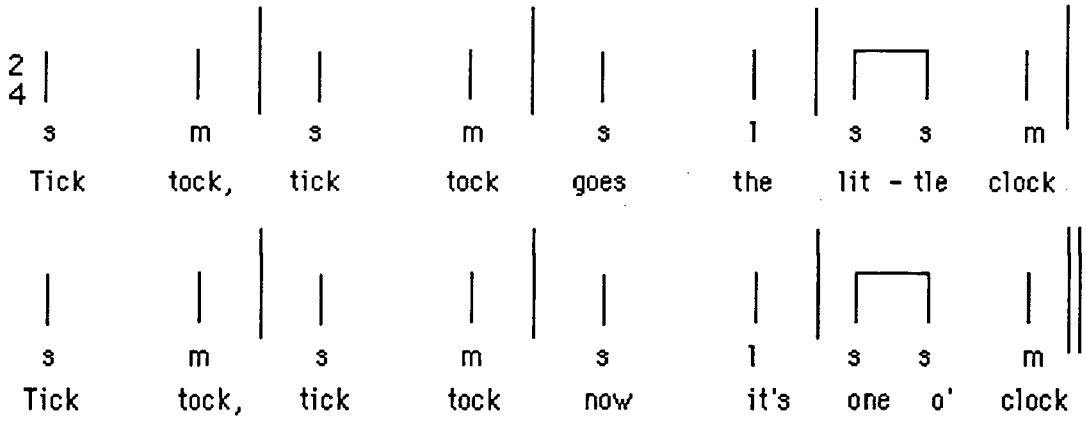
d. Encourage the children who are holding the instruments to sing the responses by themselves.

4. *Tick Tock*

a. Show the children a clock which has movable hands. Ask the children if they can remember the poem that they learned in their last lesson about a clock. If they remember, let them recite the poem. If not, review the words with the children as in lesson eleven, #5.

b. Ask the children to say the words with you while they tap the beat on their laps.

c. Tell the children that you are going to recite the words by yourself, but this time you are going to use your singing voice. Sing the following for the children:

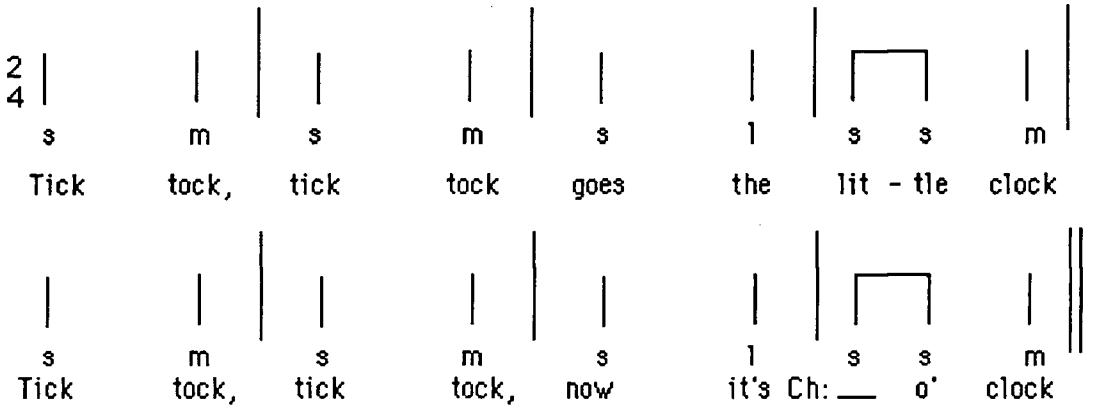


d. Teach the children the song by rote. Once they are comfortable with it, sing the whole song together, with one child keeping the beat on a tic-toc block and the others tapping the beat on their laps.

e. Ask children why the words "one o' clock" were sung (prompt them to say that it is because that is what time the clock says).

f. Change the time on the clock. Ask the children to sing that time when that phrase of the song occurs. Ask one of the children to change the time of the clock then sing the song together.

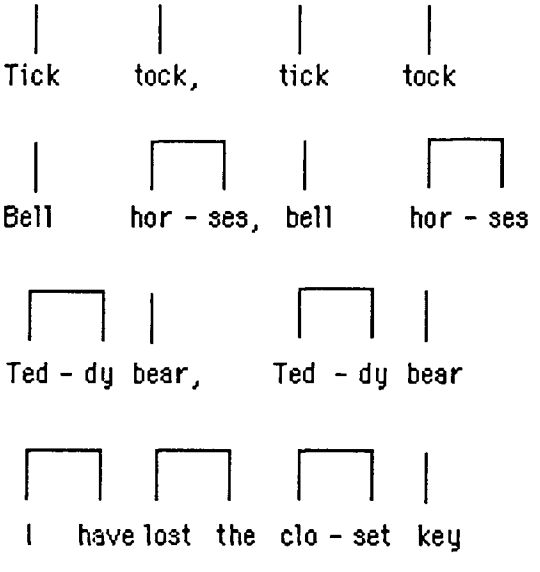
g. Continue to change the time on the clock each time the song is sung. Ask individual children to sing the time in the last measure of the song. For example:



Ch = child

5. *Rhythmic Composition*

a. Repeat the following patterns several times with the children, using variations in vocal inflections to maintain the children's interest and to allow them an opportunity to explore their own voices.



b. Following the procedure outlined in lesson ten, #5, help the children to create various compositions using the above rhythm patterns.

c. Split the class into four (or three, you being the fourth group) groups and assign each group to a rhythm pattern. Allow each group to practice their rhythm patterns on these instruments.

d. Perform the rhythmic compositions that the children have created in this configuration.

e. Allow smaller groups of children to perform for the rest of the class.

6. *Good Bye Song*

a. Follow procedure #6, lesson 7.

MATERIALS

a. Clock with movable hands

b. Tic-toc block

c. Pictures of a violin, piano, guitar, trumpet, harp, saxophone and drums.

d. Nonpitched percussion instruments.

SUGGESTIONS FOR FURTHER USE

1. See "suggestions for further use", lesson one, #2.

2. See "suggestions for further use", lesson seven, #2

3. See "suggestions for further use", lesson six, #6.

4. See "suggestions for further use", lesson eleven, #5.

5. See "suggestions for further use", lesson seven, #5.

6. See "suggestions for further use", lesson one, #5.

CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER STUDIES

SUMMARY

The development of preschool education programs has become a concern for many music educators throughout North America. This is due in part to the rapidly increasing number of preschool children entering child care facilities on a full time basis, which indicates that formal education is beginning at an earlier age for many children. Another factor is related to evidence that the preschool years are the most crucial ones for learning and development and that this period of a child's life represents the optimal time to influence musical development. Many music educators agree that they must be responsible for the musical education of this sector of the population if early experiences are to be viable and stimulating enough to have an impact on the long term development of musical skills.

As a result of these concerns, numerous preschool music curricula have been developed over the last two decades. However, as the literature review outlined in chapter I has indicated, these curricula have not seriously considered or incorporated evidence from the areas of developmental neurobiology, cognitive psychology and musical development, although it has many implications for how the musical education of preschool children should be approached. Although assorted

curricula were found which either referred to or extracted from information pertaining to this evidence, no preschool music program which encompassed the most important aspects of all of them was found.

One purpose of this thesis was to establish why an understanding of this evidence is important to the formulation of a music education program for preschool children and to demonstrate how this understanding could impact on the curricular choices made for this program. The final objective was to develop a 12-week music curriculum for 4-year-old children based on this evidence, which provides valid information about how children learn, why they learn this way and what techniques can be used to most efficiently help them develop musical skills.

In chapter II, numerous studies from the field of developmental neurobiology were reviewed. This review indicated that the development of the brain is not linear, but rather is characterized by transient periods of rapid neuronal growth and differentiation and periods in which this growth is very slow with little or no perceptible change. The studies discussed also provided evidence that the brain is in a very plastic form and is extremely sensitive to environmental influences during the period of most rapid growth. This research into neural plasticity indicated that during this period, a considerable portion of normal brain development is dependent upon environmental experience and that during this time, the environment can and will change the

physical structure of the brain, bringing about inevitable changes in both immediate and subsequent behavior. The importance of this evidence to preschool music education is that this period takes place during the preschool years.

The implications of this evidence for preschool music were discussed from three perspectives. The first was its reference to early exposure to music. This discussion suggested that exposure to music should begin before a child enters school, since it is during this time that the general cognitive structures necessary for the acquisition of musical skill can be most profoundly influenced. A second implication was found in studies which had demonstrated that when an organism is given appropriate and complex forms of stimulation during this sensitive period, its development will be enhanced. Conversely, when it is given inappropriate stimulation, development will be retarded. Based on this, it was suggested that is not sufficient to simply provide a music program for children during this sensitive period. What is equally important is that the musical stimuli which preschool children experience be appropriate from a developmental point of view. If these stimuli are inappropriate, musical development will not likely be enhanced and may in fact be inhibited. The third implication of this research was that appropriately planned and complex experiences in music during the preschool years may contribute to both musical and general developmental processes.

Chapter III examined some aspects of cognitive development in preschool children from two perspectives: (1) Does the process of cognitive development characteristic of children have implications for planning for preschool music education?; and (2) What role can musical experiences play in this development during the preschool years? This examination was based on the learning theory of Jean Piaget, which indicated that cognitive development is comprised of the establishment of structures which are progressively constructed by continuous and dynamic interaction between the subject and the environment. This construction can be influenced by maturation, experience and social interaction, and depends upon the process of equilibration to mediate the influence of these factors.

His theory suggested that children possess certain cognitive structures at various stages of their development which enable them to perform certain tasks. It also indicated that children cannot operate outside the confines of these structures, and that certain skills will not appear until the necessary structures have developed. Chapter III suggested that these limitations of cognitive development should be taken into consideration when planning musical experiences for preschool children. Based on some of the limitations which Piaget indicated were typical of 4-year-old children, the role that appropriately planned musical experiences could play in their cognitive development was explored. An analysis of four characteristics of music

suggested that when it is presented as an important part of the learning environment of the preschool child, some aspects of cognitive development may be positively influenced. These included (1) symbolic representation skills; (2) verbal and nonverbal expression skills; (3) creative thinking skills and (4) interactive social skills.

With chapters II and III establishing some general developmental principles for a preschool music program, chapter IV examined the implications of research in the field of musical development. This chapter outlined this research as it pertained to 4-year-old children in the areas of listening, singing and vocal development, rhythm and movement and creativity. The review indicated that while skill development in these areas is largely dependent upon physical maturation, it is also influenced by experience. Most of the studies reviewed offered practical insight into what can generally be expected of 4-year-olds in a musical setting, indicated what kinds of musical goals and objectives are suitable for this age group and suggested appropriate pedagogical techniques for facilitating the development of musical skill. This research, combined with the developmental theory discussed in chapters II and III, provided a foundation on which to begin the development of the curriculum.

To this extent, two sets of objectives for preschool music education were devised: a) developmental objectives and b) musical objectives. This division was made to ensure that the while the

pedagogical choices made for the curriculum focused primarily on the development of musical skills, careful consideration could still be given to what is developmentally appropriate for 4-year-old children. The rationale and philosophy outlined in chapters II and III indicated that this approach may make preschool music education more effective.

These developmental and musical objectives provided a theoretical and practical foundation on which to begin development of the curriculum. This curriculum was comprised of 12 detailed and sequential lesson plans designed to facilitate the simultaneous development of various musical skills. These skill areas included: singing, movement, rhythm, melody, beat and comparatives (high-low, fast-slow, loud-soft, timbre). The organization of this curriculum was intended to facilitate the development of general musical skills through a variety of activities over a three-month period. Each lesson was also followed by a section which made suggestions concerning potential future uses for each activity and provided a framework for future curriculum development for this age group.

CONCLUSIONS

This thesis established a theoretical and practical foundation on which to base decisions for preschool music education which is supported by a large body of research from three different areas: (1) developmental neurobiology; (2) cognitive psychology and; (3) musical development. This research provided pivotal information in the

development of the preschool music curriculum proposed in this thesis and the guiding principles upon which it is based. It is on this information, then, that the four major conclusions of this thesis were made.

Perhaps the most important insight provided by research in developmental neurobiology is that the preschool years are critical ones for development and that learning experiences during these years will have a significant impact on both immediate and long term behavior. This provides the context for the first conclusion of this thesis, which is that music education should begin early in life to most effectively influence the general learning patterns necessary for the development of musical skill. Early exposure to appropriately planned musical stimuli during the critical period will enable children to acquire skills which will have more of an impact on the development of various musical behaviors than such experiences might in subsequent years.

The second conclusion of this thesis is related to evidence complex interactions with the environment make significant contributions to the development of various skills. It is posited that early learning experiences in music will be most effective when the activities chosen are complex and stimulating and allow for interaction with numerous musical stimuli on a variety of different levels. Learning experiences of this nature during the preschool years will have the most profound effect on the development of musical skills.

The third conclusion is also related to the importance of complex interactions, but in a more general sense than discussed above. It has been suggested that music can be a complex activity which requires the integration of various skills which can help to create opportunities for stimulating and novel interactions with the environment. It is therefore concluded that musical activities may make an important contribution to the enrichment of the preschool learning environment and may subsequently enhance sensory, motor, verbal and nonverbal, social and creative thinking skills. When musical experiences are presented to preschool children in an appropriate manner, then, it is possible that both musical and general developmental skills will be enhanced.

The fourth and final conclusion bears on each of the preceding ones. It posits that preschool music education will be most effective when the musical tasks chosen reflect the limitations of children's general development. When musical experiences are being planned for this age group, consideration of this development can only serve to enhance the music education of preschool children, as it allows their learning experiences to be tailored to the level at which it is certain they can operate. Preschool music educators have frequently referred to the importance of educating the "whole" child, or of the effectiveness of using the "child-centered" approach to teaching children (Andress et al, 1973; Frega, 1982; Gerber, 1982; Orff, 1983; Birkenshaw, 1985; Pautz, 1985; Andress, 1985, 1986). However, clearly defining what the "whole

child" is in terms of neurological, cognitive, physical and musical development has been problematic or has been ignored. This thesis represents an attempt to gain some understanding of what the "whole child" is by looking at a large body of evidence whose reliability has been empirically tested. This evidence provides valuable insight into the general development of the preschool child and suggests that musical development does not operate in a vacuum. As children develop musically, other important general skills are also being developed. Conversely, the physical and cognitive skills which children acquire during the preschool years also influence the way in which musical skill evolves. Given this, it is suggested that the pedagogical decisions made for this age group be informed ones which take into account all aspects of development and not one to the exclusion of others. Only in this way can the "whole" child be educated, either musically or otherwise.

These conclusions and the research which supports them lead to the final point of this thesis, which is that the preschool years represent the optimal time to initiate children into music. Not only are children of this age group generally very eager to learn about music, but, from a purely developmental point of view, are in a period in which musical development can be deeply influenced by what they experience. This suggests that by providing the appropriate kinds of musical experiences for this age group, we are not only preparing children to be more open to music education when they enter the schools, but we are also making important contributions to many aspects of their

development. Based on this, it is proposed that the field of music education take a much more careful and informed approach to planning for this age group than has been done in the past. This researcher believes that this would be to the benefit of not only the children involved but also to the profession as a whole.

RECOMMENDATIONS FOR FURTHER STUDY

It is recommended that the following studies be undertaken as a follow-up to this thesis:

1. A study of the effects of musical training* on sensory skills (auditory, visual, somatosensory) in preschool children.

2. A study of the effects of musical training on motor skills in preschool children.

3. A study of the effects of musical training on verbal and nonverbal expression skills in preschool children.

4. A study of the effects of musical training on the social interaction skills of preschool children.

5. A study of the effects of musical training on creative thinking and problem solving skills in preschool children.

6. Further development of this curriculum based on the "suggestions for further use" section provided at the end of each lesson plan.

7. A study with recommendations providing insight into possible methods of training preschool music teachers to be more aware of developmental theory as it applies to preschool children.

* "Musical training" in this context refers to the curriculum proposed in

this thesis.

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APPENDIX A

SUMMARY OF THE STAGES OF COGNITIVE DEVELOPMENT

STAGE	CHARACTERISTIC	MAJOR CHANGES
Sensorimotor 0-2 years		
0-1 month		Development proceeds from reflex activity to representation and sensorimotor solutions to problems
1-4 months	Reflex activity only	
4-8 months	Hand-eye coordination Repeats unusual events	
8-12 months	Object permanence* obtained	Primitive likes and dislikes emerge
12-18 months	New means through experimentaiton - follows sequential displacements	
18-24 months	Internal representation New means through mental combinations	

STAGE	CHARACTERISTIC	MAJOR CHANGES
Preoperational (2-7 years)	Problems solved through symbolic represention and language development (2-4 years) Though t and language both egocentric Cannot solve conservation* problems	Development proceeds from sensorimotor representation to prelogical thought and solutions to problems True social behavior begins
Concrete Operational (7-11 years)	Reversability * attained Can solve conservation problems Logical operations developed and applied to concrete problems Cannot solve complex verbal problems	Development proceeds from prelogical thought to logical solutions to concrete problems Autonomy appears
Formal Operational (11-15 years)	Logically solves all types of problems Thinks scientifically Solves complex verbal problems	Development proceeds from logical solutions to all classes of problems

(Wadsworth, 1984)

*Object permanence: The understanding that objects continue to exist when they are out of sight (Hall et al, 1982, p. 556).

Conservation: The understanding that irregular changes in the physical appearance of objects do not affect their quantity, mass, weight or volume (Hall et al, p. 551).

Reversibility: Thge understanding that irrevelant chnages in appearance can be reversed and that such changes tend to compensate one another (Hall et al, p. 559).

APPENDIX B

SUMMARY OF ACTIVITY OBJECTIVES

ACTIVITY	DEVELOPMENTAL	MUSICAL
If Your Name	Verbal & Nonverbal (e) Perceptual (a) Social (a, b, d) Intellectual (a) Physical (a)	Movement (c) Melody (a, b, d) Rhythm & Beat (a) General (c)
Can We Make	Verbal & Nonverbal (d) Perceptual (a) Social (a) Intellectual (c) Physical (a, b, c)	Comparatives (a,b, c) Movement (b, c) Melody (a) Rhythm & Beat (a) General (c)
Teddy Bear	Verbal & Nonverbal (d) Perceptual (e) Social (a, b, c, d) Intellectual (b, d) Physical (a, b, c)	Movement (b) Melody (a) General (c)
Good-Bye Song	Verbal & Nonverbal (e) Perceptual (a) Social (a, b, c)	Comparatives (a,b, c) Melody (a, b, c)

ACTIVITY	DEVELOPMENTAL	MUSICAL
Hello, Boys and Girls	Verbal & Nonverbal (e) Perceptual (a) Social (b, c, d)	Comparatives (a,b,c) Melody (a, b, c)
Two Snowflakes	Verbal & Nonverbal (a, b, c, d, e) Perceptual (a) Affective (a, b) Social (a, b, c, d) Intellectual (a, b, c, d) Physical (a, c)	Comparatives (a, b, c, d) Movement (a, c) Rhythm & Beat (a, c, g) General (b, c)
Alarm Clock	Verbal & Nonverbal (a, b, c, d, e) Perceptual (a) Affective (a) Social (a, b, c, d) Intellectual (a, b, c, d) Physical (a, b, c)	Comparatives (a, b, c, d) Movement (a, d) Rhythm & Beat (a) General (b)
Bell Horses	Verbal & Nonverbal (a, c, d) Perceptual (a) Social (a, b, c, d) Intellectual (d) Physical (a, b)	Comparatives (a,b,c,d) Melody (a) Rhythm & Beat (a, c) General (b, c)

ACTIVITY	DEVELOPMENTAL	MUSICAL
Five Little Monkeys	Perceptual (a) Social (a, d) Intellectual (a, b) Physical (a)	Comparatives (c) Movmement (a, d) Rhythm & Beat (a)
Leaf Dance	Verbal & Nonverbal (a, b, c, d, e) Perceptual (a) Affective (a, b) Social (a, c, d) Intellectual (a, b, d) Physical (a, b, c)	Comparatives (a, b, c) Movement (a) Rhythm & Beat (a, c) General (b)
Can You Clap?	Verbal & Nonverbal (b, d) Perceptual (a) Social (a, b, c, d) Intellectual (c, d) Physical (a, b, c)	Comparatives (a,b,d) Movement (b) Melody (a, c) Rhythm & Beat (a, c, f) General (a, b, c)
Dingalingaling	Verbal & Nonverbal (a, b, e) Perceptual (a) Affective (b) Social (a, b, c, d) Intellectual (b)	Comparatives (a) Melody (a, b, c) Rhythm & Beat (a)

ACTIVITY	DEVELOPMENTAL	MUSICAL
Loud & Soft	Verbal & Nonverbal (a,b,c,d,e) Perceptual (a) Affective (a,b) Social (b,c) Intellectual (a,b,c,d) Physical (a,b,c)	Comparatives (a) Movement (a) General (b)
I Have Lost the Closet Key	Verbal & Nonverbal (b, c, e) Perceptual (a) Social (a,b,c,d) Intellectual (a,c,d)	Comparatives (a) Melody (a,b,c) General (c)
Echo Activity	Verbal & Nonverbal (a,d) Perceptual (a) Social (a,d) Physical (a,b,c)	Comparatives (a,b,c) Movement (c,d) Rhythm & Beat (a,d,e)
Such a Making a Circle	Verbal & Nonverbal (a,d) Perceptual (a) Social (a,d) Intellectual (d) Physical (a,b,c)	Comparatives (a,b,c) Movement (b,c) Melody (a) Rhythm & Beat (a) General (c)

ACTIVITY	DEVELOPMENTAL	MUSICAL
Movement Activity	Verbal & Nonverbal (a,c,d,e) Perceptual (a) Affective (a,b) Social (a,b,d) Intellectual (b,d) Physical (a)	Movement (a,d) Rhythm & Beat (a) General (b)
Whose Got the Instrument?	Perceptual (a) Social (a,b,d) Intellectual (b,d)	Comparatives (d) Melody (a,b,c) General (a)
Sing Me Your Name	Verbal & Nonverbal (c) Perceptual (a) Affective (b) Social (a,b,c,d) Intellectual (c)	Comparatives (d) Melody (a,b,c) General (c)
Rhythmic Composition	Verbal & Nonverbal (c) Perceptual (a) Social (a,b,c,d) Intellectual (a,c,d) Physical (a)	Comparatives (d) Movement (d) Rhythm & Beat (a,b,c,d,e,f) General (a)

ACTIVITY	DEVELOPMENTAL	MUSICAL
There Was a Little Turtle	Verbal & Nonverbal (b,c,d,e) Perceptual (a) Affective (a,b) Social (a,b,c,d) Intellectual (b,c,d) Physical (a)	Comparatives (d) Movement (d) Rhythm & Beat (c) General (a,b)
Here I Am	Verbal & Nonverbal (c,d) Perceptual (a) Social (d) Intellectual (a,b,c,d) Physical (c)	Comparatives (b) Movement (a) Melody (a,d) General (a)
Oh, How I Love to Sing	Verbal & Nonverbal (a,d,e) Perceptual (a) Social (a,d) Physical (a,b)	Movement (b,c,d) Melody (a) Rhythm & Beat (a,c) General (a,b,c)
Hey, Hey Look at Me	Verbal & Nonverbal (a,b,c,e) Perceptual (a) Affective (a) Social (a,b,d) Intellectual (a,b) Physical (b)	Movement (a,c) Melody (a,b) Rhythm & Beat (a) General (b,c)
Tick, Tock	Verbal & Nonverbal (a,b,d,e) Perceptual (a) Social (a) Intellectual (b) Physical (a)	Comparatives (a,b,c,d) Movement (c,d) Melody (a,b) Rhythm & Beat (a,b,c,e,g) General (a,b,c)