CHAPTER II

REVIEW OF LITERATURE

The review of related literature is organized to highlight the special features of the study as well as to provide appropriate perspective against the background of previous researches available in the field has been attempted here.

The relevant literature has been organized in four sections as follows:

Section I: Children and their Musical Environment
Section II: Creative Art in Preschool.
Section III: Block Play, Construction Art in Preschool
Section IV: Music in Relation to Arts, Construction Play, Language and Other Areas of Preschool Curriculum

2.1 Section I: Children and their musical environment

Attention to musical sound, and interest in producing musical sounds, begins in infancy. Merry and Merry (1950) have noted the focused attention given to music by infants in their first six months, their attempts to carry on “musical conversation” with others before the age of one year and their rhythmic and dance like movements when music is present. The researchers suggest that the starting time for learning about music is, the same as the starting time for any learning, because music is one facet in the total education of the child, from birth onward.

Montessori (1965) developed a program for early childhood education that has had a major impact on early childhood curriculum. Montessori planned and discussed an approach to music education requiring student experience for learning. Montessori clearly saw parallels between music learning and other kinds of learning, but research integrating the Montessori methods of music education with educational issues is still rare. (Chattin – Mc Nichols, 1981)

Greenberg (1972) repeated that concepts of beat tempo, and dynamics develop first in young children, while those of pitch and melody, melodic rhythm, harmony, and form develop at a much slower pace. Moog (1976) observed that learning to move rhythmically and to be able to control rhythmic responses to music is most important
step forward in children’s cognitive development. Children who acquired good motor skills and who are able to find their own body rhythm are able to express what they perceive. Moog further reported that at about the age of six months children begin to respond to music by overt movement, “Not in an unorganized, clumsy way, but with very clear repetitive movements using whole body movements in preference to individual parts”.

Peery and Peery (1986) found that at age four children have eclectic musical tastes and like classical and popular music equally well. They found evidence that sometime during the fifth or sixth year there is a shift away from linking classical music can be avoided by exposing children to classical music and to music appreciation training in a preschool classroom setting.

Researches by Benson and Kates (1982) and Bayless and Ramsey (1987), suggest that children generally prefer music and songs that have dominant rhythm patterns, repetition and nonsense syllables evoke a mood (e.g. Calm, lively), emphasize enjoyment, suggest enactment and movement, and tell a story. Wolf and Hom (1993) investigated children’s retention on phone number under non-music, familiar music or unfamiliar music as interventions. Compared to non-music intervention groups, the children’s retention on phone number increased in both experimental groups.

Rauscher (1994) studied 19 preschoolers who had weekly keyboard lesson taught by a professional piano instructor and daily singing sessions professional vocal instructor, other 15 preschoolers had no musical training. Participants ranging in age from 3 to 5, completed five spatial reasoning tasks at the start, middle, and end of the 8 – month study. Scores on an “objective assembly tasks”, in which a child arranges pieces of a puzzle to form a picture of an object or animals, improved markedly after 4 months of music training, Rauscher reported that children who completed musical training dramatically outscored control on this task, although both group started out with roughly the same scores. An earlier study conducted by Rauscher yielded comparable results for 10 preschoolers who took music lessons. The object assembly task was the only one that required youngsters to form an ideal mental image of an entity and orient tangible items to reproduce it, the Irvine researcher argued. Music lessons improved the ability of several brain areas to work together and orchestrate this ability, she theorizes.
Douglas and Willatts (1994) found a significant correlation between rhythmic ability and reading ability in 8-years-old. In a six month pilot intervention study, they found that developing auditory, visual and motor skills through musical activities significantly improved the experimental participation’s reading ability. The control group, which focused its activities on discussion skills, showed no change in their reading ability. The researchers postulated a connection between musical learning and reading ability.

Vyavaharkar (2004) found that the students reported that they feel stressed under various situations in college such as sickness, conflict with friends, appearing for an exam or a test. A large number of students reported that they listen to music to relax when they feel stressed. Students also said that music also helps them to forget tension and refreshes their mind. After playing music in the background before and after lectures students felt that it helped in concentration for the next lecture or next task. Paired ‘t’ test values of the performance test of the students demonstrated that a statistically significant difference existed between the performance test (before and after music) for some subjects.

Neville et al. (2007) studied effects of music training on brain and cognitive development in Under-Privileged 3- to 5-Year-Olds. This study tested the hypothesis that music training causes improvements in several diverse aspects of cognition, and that one way music training produces these effects is by improving attention. They tested this hypothesis using a “pre-post” intervention study design, in which it measured children’s test scores at baseline, prior to the intervention, and again following the intervention. 88 children were enrolled from Head Start preschools. All were three-to-five years old, from low socio-economic status (SES) families, right handed, monolingual English speakers, and free of neurological or behavioral disorders. The children were randomly assigned to be in either regular Head Start or in one of three smaller groups. Each small group met for instruction within the regular class time for 40 minutes per day, five days per week, over an eight-week period. The experimental group (N=26 children) had a small class size (a 5:2 student/teacher ratio) and focused on music activities. These included listening to, moving to, and making music, as well as singing. The three control-comparison groups consisted of: 1) a large class control group (N=19), where students received regular Head Start
instruction with a student/teacher ratio of 18:2; 2) a small class control group (N=20), where children were engaged in regular Head Start classroom activities, but in a smaller class, with a student/teacher ratio of 5:2; and 3) a small attention class group (N=23), in which children received training in focusing attention and becoming more aware of details. Children in each of the four groups were tested prior to and after enrollment in the eight-week period. They were tested on six measures: language fundamentals, vocabulary, letter identification, IQ, visuospatial intelligence (or spatial cognition), and developmental numeracy (numbers used in daily living). There were strong and significant improvements in non-verbal IQ and numeracy and spatial cognition within a group measured before and after training (i.e., within-group differences) in children who received music training and those who received attention training. The small Head Start class group also displayed large improvements in these same areas from before to after the eight-week period. These improvements were not seen in children who received regular Head Start in the large class control group.

Music experts have concluded that children have a natural propensity for musical behaviour. Research, proves that there is evidence of a natural response to music in all children. Music provides an enriching environment for preschool children.

2.2 Section II: Creative art in preschool:

Young children enjoy drawing, sticking and all other creative art activities. Eisner (1976) has defined personal inclination for the arts as those abilities that enable children to play with images, ideas and feelings, to be able to recognize and construct the multiple meanings of events, to perceive and conceive of things from various perspectives. Researchers have studied young children and found that artwork, besides its obvious pleasurable aspect, can give clear information about children’s moods and emotions.

Dodge (1984) compared a number of eye-hand coordination and visual discrimination tasks with drawing and handwriting exercises of forty-five pre-school children. She found that there were correlations between some of these tasks but that those children who did well on drawing also did well on handwriting and copying geometric forms. It was suggested that the ability to recognize and make symbols was a more important factor in learning how to write than perceptual-motor abilities.
According to Brittain’s (1985) research in children’s art, “The production of art provides one of the best ways for preschool child to understand, organize, and utilize concepts “, Brittain finds that when adults serve as a sounding board for children as they paint and draw, the children put more details in their pictures. Children are constantly translating their ideas into various media, showing their awareness of the world around them.

DuCharme (1991) studied children aged five to nine. They were interviewed about the connection between their drawing and writing; their responses fell into four basic categories. The children used drawings, (a) as objects to label, (b) as catalysts for generating ideas, (c) as a way of making the abstract concrete and (d) as an aid to their thinking.

Golomb (1992) analyzed the drawings of children aged 3 to 13 on six different topics. She found that a topic such as ‘the family’ elicited a ‘lined-up’ arrangement reminiscent of a family photograph, the theme of ‘three children playing’ or ‘a birthday party’ led to more centric and symmetrical pictures, particularly by the older children. The same pattern of development in composition had been found by Barnhart (1942) in the drawings of children enrolled in the Cleveland Museum Art School. Other variables that might affect the way children compose their picture are their level of representational skill and the order in which they draw the items on the page. Barnhart found that both of these were related to children’s levels of compositional form.

Milbrath (1998) devised a method of studying composition in children’s picture without these confounding factors. Given that the children can appreciate the aesthetic elements of picture before they can produce themselves, Milbrath predicted that without these production constraint children might be able to demonstrate a greater compositional competence. She asked children aged 6 to 17 years to make an arrangement from a number of precut two dimensional shapes or three dimensional wooden blocks, from which they could draw a still life picture that would be pleasing to them. As predicted, children were able to demonstrate a higher level of composition than they could achieve in there own drawing. The younger children shows symmetry in their arrangements and older ones were more experimental, composing symmetrical and dynamic arrangements even though the visual balance of
the composition was often jeopardized. Milbrath’s finding indicated that children are more attuned to aspects of composition than had been previously demonstrated. This is a dimension of picture production.

Johnson (1998) described a cross-cultural study. Inuit children’s drawings were compared with those of American mid-western children. Item by item the drawings of each child were examined, noting technique, line quality, use of colour and space and tried to statistically determine any gender differences. There were very few differences. A child’s art is reflective of his or her culture and each of the children had been similarly influenced by satellite television, common textbooks, and teachers educated in a southern culture. It was surprising to note that no matter where children live, their visual consciousness develops at the same rate. “All kids learn to draw, learn to represent the world at about the same stages, which is incredible. Although the cultural information such as specific games, costumes, and houses may change, generally how kids organize space, forms, stick figures, or Mr. Potato Heads – happens at about the same age everywhere.” In the study visual literacy is described as the ability to read the images and the visual environment. The ability to represent the world visually comes from the intuitive, emotional, right hemisphere of the brain. Renowned artists have had the same appreciation of children’s art. Picasso was known to have collected children’s art. He loved spontaneity in children art.

Mayesky (2006), reasons out why children draw. She speculates that children interact with their world and often use drawing as the medium to describe their experiences. Children’s literacy skills are still developing: drawing allows them the means to communicate complex thoughts. Children’s drawings tell us what they think and feel. One particular seven-year-old child drew a picture showing his mom coming home from the hospital with his new baby brother. The brother was drawn with a large smiling head and his mother was carrying him. The brother and mom were colored with bright colors and drawn with detail. Off to the side were the artist, his dad, and sister. They were drawn on a much smaller scale with little detail. It seems the message the artist was trying to convey in the drawing was that the new baby brother would become the center of attention and take much of his mother’s time. She adds that drawing empowers children to experiment and practice various drawing techniques and processes. This, of course, can be achieved by art activities in school.
The art program teaches children to observe, create, express, and experiment with the principles and elements of drawing. She further adds that drawing allows the child to invent. In their drawings children create objects, characters, and worlds that erupt from the child’s imagination. These drawings are essential and help develop a sense of self, what they like and dislike.

Johnson (2008) gave twenty five tips for teachers for developing verbal and visual literacy through experiences in the visual arts. In her view, she said that best practices for art experiences with young children include providing developmentally appropriate activities, materials and equipment. Children must be provided with time and space to explore a variety of materials, such as crayons and marker, different colours, sizes and textures of papers and fabrics, media such as paints and clay and tools such as brushes, scissors, sticks and paste. Young children learn by talking with them about art and art making such practices help children to develop visual and verbal expression through active experiences with the visual art and are essential for visual literacy. Art experiences that include questioning and dialogue may be called art talk. This art talk help children to express themselves with art media and art language. Probing questions encourage children to reflect about their art work and encourages children’s visual perceptions, visual thinking and reflective intelligence. Talking about art introduces concepts such as colour, line, shape or font, pattern or texture. Extension practices help to develop simple concepts into more complex ideas. It encourages children’s to come up with new ways and materials to express their ideas artistically. Young children reflect on their art experiences and consider their products through carefully constructed questions in individual interviews or during children’s presentations at an Artist Circle (Althouse, Johnson and Mitchell, 2003).

2.3 Section III: Construction Art: Block Play

Johnson (1933), pioneer early childhood specialist worked with Carolyn Pratt and founded the nursery school at Bank Street Collage of Education. In this demonstration school, Johnson spent years observing children’s use of building blocks and she eventually published her findings in the classic, “The Art of Block Building” (Johnson. 1974). She found that children go through predictable stages in learning to use blocks, based on their maturity and experience; when they are given the freedom
to use blocks naturally without adult interference. Her observational data give strong support to much current research on child development. Her block building stages serve us well today in our observation of children’s cognitive development. The children Johnson worked with ranged from 2 to 6 years in age, and varied in their experience with blocks. She found that the older children with no experience still progressed through the same stages as the younger ones, but with greater speed.

A well–equipped block center should have a variety of building materials differing in size, shape, color, texture, and material of construction. One of the most effective activities for developing cognitive concepts about space involves playing with “unit blocks.” These deceptively simple and plain wooden units, half units, double units, quadruple units, cylinders, curves, triangles, ramps, pillars, floorboards, and switches were invented before world war I by Carolyn pratt for use by her children in the experimental city and country School in New York City (Winsor, 1974).

Wolfgang, Standard and Jones (1982) conducted research on block play performance among preschoolers as a predictor of later school achievement in mathematics. An intact group of 37 preschoolers (age 4) attending a play oriented preschool were tested using the Lunzer five point play scale (1955) to obtain a block performance measure. Social economic status (SES), IQ and gender were controlled. In 1998, after these same participants had completed high school achievement was obtained. Outcome measures for the 3rd, 5th, and 7th grades included standardized tests and report card grades in mathematics. High school, school achievement was determined by using 1) number of courses, 2) number of honors courses, 3) advanced math courses taken, and 4) grades. While controlling for IQ and gender, the block performance measure was correlated and regressed against these outcome variables. No significance was found at the 3rd and 5th grade levels by evaluating report card grades and standardized math scores. At 7th grade, there was a significant correlation between block and standardized math scores, but not report card grades. At the high school level, there was a positive correlation with all high school outcome variables. There was no correlation between block performance and standardized math tests or grades at the elementary school levels. However, at the beginning of middle school, 7th grade, and in the high school grades, a positive correlation between preschool block performance and math achievement was demonstrated.
Playing with blocks, as a form of construction play, requires the young child to build spatially with large numbers of pieces of unit blocks of wood to produce representations of objects, or products. These products, at the higher levels of block building, can be labeled as imaginary structures representing real objects. Construction play with blocks offers the preschool child the opportunity to classify, measures, order, count, use fractions, and become aware of depth, width, length, symmetry, shape and space (Hirsch, 1996); thus, one can make a direct relationship with the skills acquired in block play as being foundational for the later cognitive structures needed for number and math skills and learning. The question is whether preschool age children, who have high levels of block building, also show high levels of mathematical achievement later in formal school settings (Hirsch, 1996).

The child symbolizes the structures. There are individual differences in children’s pretend and construction play and maturity, family life experiences, style preferences, class-room context, practice, cultural background, and play quality all influence the content of pretend and construction play as well as the players performance (Mellou, 1994). Mellou (1994) further discusses each factor in detail with some research evidence.

1) Maturity. Three-years-olds do not possess the vocabulary, life experience, or level of abstract thinking that older children demonstrate. Their play is usually solitary, beside another player who is playing similarly, or in short episodes of cooperative play frequently, they cannot express the miscommunication messages necessary for more elaborate pretend play. A few children begin true construction with regular materials as early as age 3 years. If the structure is not named, the adult may have difficulty discerning whether the child is involved in object play or simple construction. As children mature, their structures become more complex. Details of interest become elaborated and are often the subject of conversation among children. In addition, the child’s intent is much clearer, being either announced in advance or obvious from the context of the ongoing play. Four-and 5-year-olds regularly engage in pretend play during the construction process. Six –and 7- year- olds may discuss in detail what they plan to construct and even determine the relation among the structures before they begin.
2) **Family Life Experience.** The general life experience of 3-to 8-year-olds varies considerably. Children from rural areas know more about farming than urban children do and can pretend appropriate roles much earlier than their city counterparts of similar maturity. Some children have experienced police raids in their neighborhoods and have a working knowledge of street gangs by the time they are 5 years old, whereas other children of similar ages are completely ignorant of such occurrences. Ordinary factors such as family composition, presence of pets, modes of typical transportation and occupations of adults in the home provide some children with information that others do not have. Children tend to play out the scenes and scenarios with which they are most familiar. In addition, the child’s language and the caregiver’s support of symbolic play positively influence children’s collaborative play. (Bornstein et. al. 1996)

3) **Cultural Differences.** Many classrooms are composed of children from various cultural backgrounds. The roles of mother and father differ from one family to another. This is true of the individual family culture as well as of nationality, such as Arabic, Japanese, or Spanish, Thematic content and the communicative strategies used to structure and maintain play is influenced by culture. Players often need help in negotiating their play. Younger children do not usually realize that different people may come to the play with perspectives vastly dissimilar from theirs.

4) **Practice or Skill Differences.** Children who do not have access to a wide variety of materials will not be as skillful as those who do, regardless of age. For example, although many 3-year-olds can cut simple straight lines, 5-year-olds who have just acquired access to scissors may still be discovering how they work. High-quality construction play depends on the skillful use of the tools and materials used in the process. Construction with blocks requires skillful placement and organization; with graphic materials, construction requires control of implements.

5) **Classroom Context.** The context of the classroom also accounts for individual differences among children in play performance. First, the materials, the equipment, and the organization of classroom space influence whether or not children play and the number of players engaged at one time. Even the subtle differences in play with hollow and unit blocks affect play content and social structure. Theme – related play is unlikely to occur without the necessary theme-related objects and sources of
information. The presence of peers with whom to play and the level of creativity and flexibility other players bring to the pretend–play situation often influence not only the existence of play, but also its quality. The presence of one or two “master players” capable of sustaining the play by adjusting play scripts, imaginative problem solving, compromising, negotiating, and suggesting play elaborations influences the other children’s performance. An integrated classroom of 6 and 7-year-olds who have been in a mixed–age group for at least a year will play more skillfully together than an age-graded group that has just formed.

6) Play Style. Some youngsters focus on form, line, color, design, and the general aesthetics of the construction. A 5-year-old with this style builds more elaborate block structures, with turrets, corners and arches, using lost of blocks and space. These patterns may show interest in maintaining structures for several days. In contrast, dramatists tend to focus on the narrative of the pretend play and might use only a few blocks as long as they represent the idea they have in mind. For a dramatist, the form is much less important than the function. As soon as the pretend sequence is complete, this child is finished with the materials and more readily returns them to the shelf. A youngster’s characteristic style applies to all materials. Children can and should be encouraged to extend their constructions beyond the limits of their preferred style constructions beyond the limits if their preferred styles. More than one third of all children use either style with equal ease.

7) Quality of Play. Finally, the quality of play differs. This difference centers on the ability to maintain a group play theme with time and the inclusion of problems to be solved by the players. Children enact roles relevant to setting such as a bakery, hospital, beach, school, or library. When they include a problem such as a fire starting in the library basement or an emergency patient entering the hospital the narrative and enactment of the pretend play has more like qualities: (a) a beginning, (b) problem identification, (c) plot development, (d) problem resolution, and (e) an ending.

Wolfgang, (1999) studied a correlation between the levels of young children’s block play and their performance in mathematics in later school levels. The generally accepted definition of play would include three large categories: 1) sensori-motor play (large and small motor activity); 2) symbolic play, which involves representational abilities and includes the fantasy play of socio-dramatic play; and 3) construction
play, which involves symbolic product formation with blocks, lego, carpentry, and similar materials. Although there is a host of empirical research on symbolic play the literature regarding construction play, especially longitudinal studies, is limited.

Investigative play with blocks leads children to discover interrelations among concepts such as balance; cause and effect; classification; counting; estimation; whole-part relations; geometric solids; serration; predictions; and the understanding of simple machines such as ramps, fulcrums and levers (Wellhousen & Kieff, 2001).

Hanline, Milton and Phelps (2001) observed young children block construction activities for three years. The purpose of this study was to explore the development of the complexity of block constructions of preschool children and to determine the effects for various factors on the children’s block play. Sixty-five children were observed a total of 421 times, over the course of 3 years. Hierarchical linear modeling was used to determine the effects of disability, gender, and time the child was involved with block construction activity on the developmental complexity of block construction. Results indicate that (a) the complexity of children’s block constructions increase with chronological age, (b) time the child was involved with block construction activity has a positive effect on block play.

Findings from and independent pilot clinical research study released by the University of Washington indicate that children who engage in block play benefit from improved language acquisition. The study, commissioned in September 2005 by MEGA Brands, validates a growing body of research that supports the benefits of block play for a child’s development.

A study by Cohen et. al. (2007) on young children’s discourse strategies during block play: a Bakhtinian approach described the application Bakhtin’s theories of dialogism to nineteen 5-years –old preschool children’s communication strategies and the ways children appropriate meaning in block play. The observed frequency of communication strategies used in three different naturally emerging social relationships-1) individuals, 2) dyads, and 3) groups of three or more children-in a culturally diverse preschool program was investigated. Both quantitative and qualitative data were collected and analyzed. Using Corsaro’s (1986) coding system
for types of utterances, results indicated significant differences in the communication strategies of 5-year-old children.

Park, et. al. (2008), in a qualitative study on young children’s block play and mathematical learning investigated young children’s mathematical engagement in play with wooden unit block. Two boys, ages six and seven, were independently observed completing the task of filling outlined regions with the various sets of blocks. Three major mathematical actions were observed: categorizing geometric shapes, composing a larger shape with smaller shapes, and transforming shapes. Results indicated that young children’s blocks play with designed tasks promoted mathematical actions, which may cement the foundation for advanced mathematics learning.

The studies on block play reveal the importance of including building blocks in preschool curriculum. Children learn about spatial relationship and physical properties develop social skills while building together and through requesting and sharing blocks and use creativity as they construct their own unique works.

2.4 Section IV: Music in relation to arts, construction play, language and other areas of preschool curriculum

Madsen, et. al. (1975) reported that the opportunity to listen to popular music can be reinforcer for such tasks as math performance or paying attention in school. Cohen (1974) suggested music and song as a vehicle for facilitating children’s developing an interest in reading.

Wolff (1978) and Hanshumaker (1980) provide excellent reviews of research in which music is a means for aiming non–musical learning. Besides the use of music as a reinforcer, other uses of music to attain non–musical educational goals involve facilitation of general and specific learning transfer with background music. A variety of studies have been conducted and music’s effects have been examined with respect to language development, reading readiness, mathematics, creativity, attitudes towards learning self concept, socialization, personality, and certain physical activities. Generally music has no deleterious effect on learning or development with
respect to these variables, and a surprisingly large number of studies suggest that music has positive effects.

Lowery (1982) tested three curricula designed to increase creativity in children. Two of these curricula were non-musical and one (Music and Imagery) was musical in orientation. Lowery reported significantly higher creativity scores in verbal fluency, verbal originality, figural originality, total verbal and grand total creativity for children who had the Music and Imagery curriculum.

Jalongo and Bromley (1984) suggested that picture song books help children develop linguistic competence. They believe that bilingual children and children with learning difficulty benefit from the added exposure to vocabulary, syntax, semantic and rhythm. Information about the song’s history, social context, or cultural context can also lead to expanded abilities to deal with the song form a more meaningful linguistic base.

A study conducted by Larsen (1985) explained the impact of family size, employment, income, education and time spent on different tasks by children on the frequency and type of music most often listened to as a background to other home activities. The study sample comprised of parents of 132 second grade children. Questionnaires were given to parents and the result showed no clear pattern of family influence to be associated with musical opportunities for the low risk educationally advantaged population of second grade children. The sex of the child did not have an effect on time not the type of music played as background to home activities. In addition previous attendance in preschool, parent’s education, number of siblings, time with parent, father’s occupation and various out of school activities were shown to have an influence on more aspects of musical opportunities provided to children.

Dave (1993) investigated effectiveness of music as a medium for teaching language to the preschoolers in the context of the family determinants that influence the musical performance of the child. The sample of the study comprised forty preschool children (20 boys and 20 girls). The musical responses of children were observed. The findings of the study were: Most families has a positive attitude towards music and musical activities. As instructions were given to experimental group, these children gained higher in terms of vocabulary as compared to control group children who were
exposed to teaching by rote method. Girls showed a higher gain as compared to boys in the experimental group. Dave further concluded that music can be used as a medium of enhancing language learning in preschool and parents consider all such activities as innovative and creative.

Vyavaharkar (1993) investigated the effect of music on the performance of preschool children in selected tasks namely: crayoning and sticking. Another objective of the study is to investigate the effect of music on the attention span of children while they performed the selected tasks. The investigation also analyses the performance of children in the selected tasks and the duration of time spent on these tasks in two experimental conditions, namely, no music condition and music condition in relation to sex. The sample comprised 30 children (15 boys and 15 girls) randomly selected. The children were exposed to two experimental conditions. Three sessions were held for two selected tasks viz, crayoning and sticking as children performed under the two conditions viz, no music and music condition in which a prerecorded cassette of western rhythmic music was played in the background. The tasks sheets were rated independently by three qualified judges on a predetermined rating scale. The rating scale was based on selected aspects of art to denote differential quality of performance under the two experimental conditions. The quantitative time spent on each task under the two conditions was recorded to denote the attention span. Every child performed each activity for three sessions on separate days for the two experimental conditions. The performance of children in both the tasks was analyzed qualitatively to ascertain association with music. The data was also analyzed quantitatively to see the effect of music on the attention span of children as they performed the task. The salient findings of the study were that music had a significant association with all the aspects of art in crayoning activity. In the task of sticking except for the aspects of movement and the suitability of title music had no association with the aspects of art namely, organization, balance, rhythm and colour.

Music was found to be an effective strategy for the attention span of children as they performed the selected tasks. It was also observed that music had no change in the responses of boys and girls for the aspects of art in both the tasks. The findings also indicated that there was no difference in attention span of children and music in relation to sex. It is therefore indicated that, integration of music with creative arts and
also other areas in the preschool environment could be more stimulating for children and enhance their performance.

Medina (1993), studied The Effect of Music on Second Language Vocabulary Acquisition on children. The purpose of this investigation was to determine, whether music brings about language acquisition to the same extent as other more traditional nonmusical approaches (e.g., oral stories), whether illustrations improve vocabulary acquisition, and whether there is a strong interactive relationship between the instructional medium (music/no music) and extra linguistic support (illustrations/no illustrations). In this study, vocabulary acquisition was investigated under four conditions: (1) Music, (2) No Music, (3) Illustrations, (4) No Illustrations. This study was structured using a control group pretest-posttest design with matching and repeated measures, a variation of the randomized design. Subjects participating in this study were 48 second-grade Spanish speaking limited-English-proficient students from two classrooms. Commercially produced audiocassettes with accompanying big book illustrations were used for this investigation. The findings revealed that the Music and No Music treatments produced comparable amounts of vocabulary acquisition. It followed that music does not adversely affect second language acquisition. Instead, it is a viable vehicle for second language acquisition. This finding is consistent with the statements that have been made regarding the efficacy of music for language acquisition. The Illustration and No Illustration treatments did not produce statistically significant effects. The raw data, however, did reveal a pattern: Illustration treatment groups consistently produced higher levels of vocabulary acquisition than No Illustration groups, both in the short and long term. This general pattern favoring illustrated treatments was expected in light of the research on comprehensible input. Although the interaction between music and illustration was not statistically significant, the raw data indicated that the combination of music and illustration consistently yielded the highest average amount of vocabulary gain. The positive effects produced by the combination of music and illustrations were predicted from the psychology literature.

In 1994, Colwell examined the effects of a music program on the development of global word recognition abilities in three kindergarten classes in the United States. In total, 27 preschoolers participated in this study. In addition to the regular program
offered by the three teachers, supplemental musical training was provided by a music therapist. For 12 weeks, the music therapist met with each group for 20 minutes, twice a week. Group 1 participated in a program during which they sang stories (short songs representing a story), group 2 participated in a program during which stories were traditionally read and sung, and group 3 participated in a program during which stories were simply read. Every 2 weeks, participants' global word recognition abilities were assessed using six storybooks previously presented in class. The Test of Early Reading Ability also served as an assessment tool at the end of the 12-week program. After analyzing the data, Colwell (1994) noted significant statistical differences between the three groups. Results in the Reid et al. (1991) test indicated that participants in groups 1 and 2 had a better understanding of the text, and they omitted and substituted fewer words than subjects in group 3. According to Colwell (1994), these results suggested that music stimulates intellectual abilities and contributes to the transfer of academic notions.

Chong and Gan (1996) initiated a project 'Elm' (Expressive Language and Music) in May 1996 at the National Institute of Education, Singapore. Its main aim was to develop integrated language and music activities in an interactive setting which would promote the communicative competence of young Asian children learning English as a second language, by enriching and expanding their overall vocabulary. In order to aid their articulation and pronunciation, specific activities were used to heighten awareness of different rhythms and sounds in the English language. Activity programs were based on themes commonly introduced in local kindergartens (for example animals, transport, the weather, food and creepy crawlies). Commercial and in-house language arts aids, with a high visual input, were used to complement these activities. They included enlarged storybooks, manipulative rhyme and word charts, interactive flap books and picture sound stories. Manipulative charts were used. Commercial puppets, (with mouths) were used regularly by the children to emphasis the pronunciation of words, as too were dressing up props for role-play, which usually accompanied the retelling of a song or story. Orff (1895-1982) and Kodaly (1882-1976) approaches to the teaching of music was used for developing ideas in this project. Orff's approach was used to emphasize creativity and improvisation, singing, chanting, clapping and physical movement, and supported by instrumental ensemble. Four basic in-place body rhythms, or sound gestures were emphasized - stamping,
patching (slapping of thighs), clapping, and finger snapping. These were used to accompany chants, songs and stories and led children to discover rhythmic patterns in familiar words, like their own names, nursery rhymes or animals for example. Speech and song were stressed as the natural starting point for children to discover how they could manipulate and produce different sung or spoken sounds. Kodaly's method was used for learning songs that encouraged children to discriminate and distinguish 'comparatives' relating to pace, (faster/slower), pitch (higher/lower) and volume (softer/louder), and to identify and demonstrate beat, accent and rhythm, by inventing their own rhythmic patterns, and clapping or playing rhythmic ostinatos. Children listened critically to the sounds and organized them in various combinations and patterns to suit the story or rhyme. Movement and dance activities were also incorporated to develop children's appreciation of rhythm and enhance children's attentive listening skills. One and a half hour programs were situated on campus, with a group of twelve kindergarten children, (two Malay, and ten Chinese). All the children were learning English as a second language, and, with the exception of one Chinese girl, recently arrived from mainland China, had some English at their disposal to communicate with. The program was based on a different theme each week, and was divided into three main phases. During first phase the researchers set objective of familiarizing the children with each other so that they could greet each other quite spontaneously with a sung or chanted greeting. In second phase Tuning in emphasized general auditory awareness. Songs, rhymes and stories were also used to introduce the theme of the week. Stories were generally enlarged in order to facilitate chorus reading of repetitive and rhythmic texts in a group setting. During third phase they were encouraged to explore the sound-producing possibilities of both the musical instruments and their own voices and were helped to classify these sounds according to timbre, volume and duration. It was concluded that, motivated by this language-rich environment, all the children in the project made noticeable gains in language, musical and social skills.

In 1997, Standley and Hughes studied the effect of an interdisciplinary music program on emergent written abilities in 24 preschoolers enrolled in a program for exceptional children in the United States. Children were divided in two subgroups (n = 12). In the fall session, group 1 participated for 7 1/2 weeks in an experimental music program centered on the development of prewriting abilities. Group 2, the control group,
participated in a regular school program that also offered a music program. In the winter session, programs were switched around, and group 2 participated in the 7 1/2-week experimental music program, while group 1 took part in the regular school program. Standley and Hughes (1997) music program was offered for 15 weeks and consisted of two 30-minute music classes per week. In total, children were exposed to 30 classes. In their discussion, Standley and Hughes (1997) claimed that their music program enhanced the emergent literacy abilities of their preschool-age participants. The authors also concluded that musical activities are pleasant for children and motivate them. They explained that "it was also apparent from the children's reaction that the music activities provided pleasure and excitement about academic participation, possibly generating long range motivation for reading and writing".

Researchers have found the arts (music most commonly) to have a positive impact on reading, math, writing, self-esteem, and brain development. The music-math connection in particular keeps coming up over and over again. Children who take music lessons score up to 35% higher on spatial tasks (Rauscher & Shaw, 1997).

A quasi-experimental study by Yazejian and Peisner-Feinberg (1998) evaluated the effects of a supplementary preschool classroom music and movement curriculum on Head Start children's language skills. The curriculum consisted of sequenced music and movement activities conducted by outside interventionists. The evaluation compared the language skills of children attending either intervention or comparison classrooms. Results revealed that children receiving the intervention made greater gains in teacher-rated communication skills than children in the comparison group. Results for receptive language and phonological awareness indicated no significant differences between groups. These findings provide limited support for the beneficial effects of offering specialized music and movement curricula to preschool-age children.

Anderson et al (2000) investigated the effects of background music on spelling word retention of elementary school students. They found that spelling test scores and report card grades improved after listening to background music. The researchers concluded that the music enabled the students to relax, concentrate, and visualise the spelling words.
Hallam (2002) examined the effects of background music on story writing of fifth and sixth grade students. Students were divided into three groups: calm music, exciting music or no music. After completion of the story writing, the students were asked whether they were aware of music, if they liked, if they thought it helped them, and how it made them feel. The researcher found that writing scores for the calm music and no music group were similar, while writing scores for the exciting music group were significantly lower than scores in the other two groups. Additionally, children in the exciting music group spent more time off-task and asked more non work related questions than students in the other two groups. Results of the questionnaire showed that children’s perceptions of how music affected their work were often incorrect. They perceived the music they liked as helpful, and music they did not like as distracting.

The study led by Peynircioglu, Durgunoglu, and Oney-Kusefoglu (2002) examined the correlation between musical aptitudes (perceptive melodic and rhythmic abilities), phonological awareness, and "pseudoword" recognition abilities. Among the 32 Turkish participants in the study, half the participants were found to possess below-average musical aptitudes, while the other half had above-average musical aptitudes. Each kindergartner was individually evaluated using Oney-Kusefoglu and Durgunoglu's (1997) Phonological Awareness and Pseudoword Recognition Test (rhymes, syllables, and phonemes) and the melodic and rhythmic perception tasks from Seashore's (1956) Musical Aptitudes Test. Statistically, results suggested that participants with superior musical aptitudes obtained better results in the phonological awareness and pseudoword recognition tasks than participants with below-average musical aptitudes. The interdisciplinary activities in the experimental music program contributed to raising three components that play an essential part in the development of musical and linguistic abilities. The first component--auditory perception--refers to the set of cognitive operations used to receive and analyze sound stimuli. The second component--phonological memory--stimulates information withdrawal required for the recognition and distinction of similar linguistic and musical patterns. Finally, metacognitive knowledge facilitates self-awareness of one's intellectual functioning, and it supports the mental processes related to language and music. In summary, it seems that by focusing the child's attention on different elements related to literacy
emergence and the development of metalinguistic abilities, it is possible to develop learning strategies that facilitate the acquisition of written language.

Dawson (2003) examined the effects of four different auditory background conditions on the reading achievement of seventh grade students. The four auditory conditions included instrumental music of Mozart, instrumental music of Yanni, instrumental music of Pink Floyd and silence. The researcher found a significant effect for vocabulary, comprehension and total reading ability when the auditory background condition consisted of listening to the instrumental music of Mozart or the auditory condition of silence.

Carlson et. el. (2004) examined the effects of background music and relaxation on the reading performance of third grade students. Students, who participated in this study, sat in a vibroacoustic music chair, which allowed students to feel the vibrations of the music, while completing the reading based tasks. The result of the study showed a statistically significant positive impact for both sight- word recognition and reading comprehension. There was no significant increase for oral reading accuracy. Furthermore, the researchers stated that all students who were reading below grade level at the beginning of the study improved their performance to grade level or higher.

The experimental studies also show that children who participate in musical and first-language interdisciplinary programs develop phonological awareness, word recognition, and invented spelling abilities more efficiently than their classmates who do not participate in such programs (Bolduc, 2006) In fact, it seems that musical activities promote the development of auditory perception, phonological memory, and metacognitive knowledge--three components that are equally involved in the development of linguistic abilities.

“Morning music relaxes kids” an article in Times of India, March 23, 2010 by Shruthi Balakrishna, discusses that music to the ears, and when it wafts in with the early morning breeze it soothes and calms it is the newest way to help students to de-stress. She further reports that classical of meditation music, instrumental, patriotic and even the Gayathri Mantra is played during the morning assembly and recess the music lasts from three to ten minute it has got happy response from parents and children
encouraging the school to continue with the concept. Army Public School has installed speakers in each class room and instrumental and classical music is played in the morning till classes commence and again play during break time. Playing music helps children to relax and feels good.

Team NIE of Times of India reports on April 15, 2010 in the article, ‘Tune in for Success’ music acts as the perfect stress buster but according to a study, it significantly improves reading and mathematical ability too. The team reports a research initiated by Southgate and Roscigno, of The Ohio State University has revealed that music is positively associated with academic achievements, especially during the high school years.

Some studies also discuss the negative effect of music. Music has been found to be a potential distraction when used as a background for other tasks. Etaugh and Michals (1975) in their study found that if the music is familiar the distracting effect on reading ability is decreased. Early childhood educators and parents are pondering the kind of education our children need to become responsible and productive members of a global society. In order to create the kind of futuristic thinking necessary to cope with our ever-changing world, higher order thinking processes deserve attention now. An arts-rich curriculum can provide a vehicle for self-expression, self-understanding, self-confidence, creative problem solving and motivation (Pitman, 1998).

2.5 Conclusion:

The studies on music and other aspects of preschool curriculum like language, maths, readiness activities, physical activities and creative and constrictive art reveal that integration of music with other components of the curriculum helps children to learn effectively. Music, language and creative and construction arts are enriching activities of preschool environment. The integrated and enriched curriculum brings a special sense of well – being and joy to the teachers and children. Young children try to express themselves through the activities. They make a foundation upon which growing skill and aesthetic sensitivity can be built. Music, constructive and creative arts like drawing, painting, sticking, clay modeling, block play and pretend play are connected as all are symbolic systems.
The above mentioned studies of music, language, creative and construction art work suggest common values of all the activities such as self-expression, organization of work, composition, originality, rhythm, balance and movement. Specialists in the field of preschool education have realized the importance music and have successfully tried to integrate music and other aspects of curriculum like creative and constructive art, language, maths etc. The related researches reviewed in this chapter have helped the researcher to construct the methodology and conceptual framework of the present study.