

PROJECT PEEP PROPOSED EARLY EDUCATION
PLAYGROUND FOR WHITE BLUFF ELEMENTARY
KINDERGARTEN

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PROJECT P E E P
PROPOSED EARLY EDUCATION PLAYGROUND
FOR
WHITE BLUFF ELEMENTARY KINDERGARTEN

An Independent Study
Presented to
the Graduate Council of
Austin Peay State University

In Partial Fulfillment
of the Requirements for the Degree
Specialist in Education

by
Bessie Sullivan Larkins

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To the Graduate Council:

I am submitting herewith an Independent Study written by Bessie Sullivan Larkins entitled "Project PEEP--Proposed Early Education Playground for White Bluff Elementary Kindergarten." I recommend that it be accepted in partial fulfillment for the Specialist in Education degree.

Bryan Crutcher, Ed. D.
Major Professor

We have read this Independent Study
and recommend its acceptance:

Ernie P. Oakley
Second Committee Member

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Third Committee Member

Accepted for the Graduate Council:

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Finally, the author wishes to dedicate this study to her husband and children in expressing her gratitude for their help and understanding throughout this study. Her husband has played a vital role in the planning and building of the playground, and his patience has far exceeded any expectations.

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Chapter 1

INTRODUCTION

Authorities in the field of early childhood education have said that play is the most significant way in which children learn, being the initial state in the lifelong process of learning which every individual experiences.¹

Physical and muscular development are said to be enhanced through vigorous play--climbing, running, and jumping. Play activities have been found to stimulate curiosity, questioning, investigation, and thus promote intellectual development. Through the use of various media, the child has been found to express himself creatively. Play activities have provided many opportunities for learning to give and take and for developing socially. In good play experiences, a child develops the ability to plan, organize, and solve problems, thus building self concept and a sense of body image.²

Administrators in the State of Tennessee have endorsed the importance of play by making it a part of the early childhood curriculum, stating, "It is the only activity in which the whole educational process is consummated."³

¹Tennessee State Board of Education, Guidelines for Kindergartens (Nashville: State of Tennessee, July, 1973), p. 15.

²Ibid.

³Tennessee State Department of Education, Early Childhood Education Handbook (Nashville: State of Tennessee, n.d.), p. 16.

STATEMENT OF THE PROBLEM

The outdoor playground at White Bluff Elementary School, where the author has been teaching kindergarten for six years, was bleak, barren, and short of equipment. The purpose of this study was to develop a play area that was child-centered and would be instrumental in the development of: (1) basic motor skills, (2) mental skills, (3) social skills, (4) emotional maturity, and (5) creative expression.

In reviewing the literature, the researcher found that the experts in the field believed that play was the major medium of learning for children and was essential to the total development of children.⁴

DEFINITION OF TERMS

For the purpose of this study, the author defined the following terms as:

Play: To have fun; to amuse oneself; to engage in recreation. Montessori described it as a child's work.⁵

Free Play: Play that is supervised, but not structured, by the adult; child initiated play.⁶

Child-centered Playground: A playground that is planned and built around the needs and desires of children.

⁴Peggy L. Miller, Creative Outdoor Play Areas (Englewood Cliffs, N.J.: Prentice-Hall, 1972), pp. 5-6.

⁵David Elkind, "Misunderstandings About How Children Learn," Today's Education, LXI (March, 1972), p. 16.

⁶Miller, op. cit., p. 18.

METHODOLOGY

In planning and developing a creative, child-centered playground, the author followed these specific steps;

1. Wrote the principal of the school, explained exactly what was intended, and asked for permission to proceed.
2. Reviewed the literature at Austin Peay State University and other sources for expert opinions and for creative ideas.
3. Consulted with the other kindergarten teachers and explained the planned project.
4. Talked with children at White Bluff Kindergarten, asking them to describe their favorite type of equipment. (These conversations were taped.) Asked the children to draw pictures of their favorite play equipment.
5. Visited and studied outdoor play areas in other localities and collected data, identifying the strengths and weaknesses of such areas.
6. Devised specific plans for building the play area, sketched the plans on paper, and made measurements of the site.
7. Presented the plans and drawings to the principal and secured the funds.
8. Built a model of the proposed outdoor playground.
9. Redesigned the playground and built the equipment.

SIGNIFICANCE TO EDUCATION

Studies have indicated that play is the major medium through which children learn.⁷

N. V. Scarfe said that play has all of the characteristics of a fine and complete education system. In play, the child is learning to

⁷Miller, op. cit., pp. 4-5.

learn. Play is the most complete of all educational processes, for it influences the intellect, the emotions, and the body of the child. Scarfe further stated that play is the only activity in which the whole educational process is fully consummated, when experience induces learning and learning produces wisdom and character.⁸

Authorities have said that if educators truly believed that play is the child's business, that in play a child prepares himself for adult life, and that all play is an educational experience, then our school playgrounds would reflect these beliefs.⁹

Based on this research, adequate outdoor play facilities would serve as a powerful support to the basic goal of education, that of educating the "whole child."¹⁰

⁸N. V. Scarfe, "Play Is Education," Understanding the Young Child and His Curriculum, ed. Belen Collantes Mills (New York: Macmillan Co., 1972), pp. 126-131.

⁹Erika D. Passantino, "Adventure Playgrounds for Learning and Socialization," Phi Delta Kappan, LVI (January, 1975), pp. 329-383.

¹⁰John Dewey, Experience and Education (New York: Macmillan Co., 1938), p. 44.

Chapter 2

REVIEW OF THE LITERATURE

The tendency to regard children's play as enjoyable and natural for children outside of school, when they have nothing more important to do, has come under re-examination in the past few years. Authorities in the area of child growth and development have studied the effects of play on the total development of children. Much evidence has been found that has given the case of play a new respectability in the education world.¹

Play and Children's Learning

For many years, the function of play in childhood has been essentially misunderstood by many adults. It has been thought that its primary function was to "let off steam," so that the child could get on with the important business of studying and learning.²

For many adults, play has been seen as recreation, something which takes place in leisure time. Somehow, adults have learned to believe that play should only occur when one is not working.³

¹Sara H. Arnaud, "Some Functions of Play in the Educative Process," Childhood Education, LI (November/December, 1974), pp. 72-73.

²Richard Dattner, Design for Play (New York: Van Nostrand-Reinhold Co., 1969), p. 23.

³Mary W. Evans, "Play Is Life Itself," Theory Into Practice, XIII (October, 1974), p. 267.

Play has become something we have learned to discard in school. We have quickly shifted children's play to work. The puritanical influence has dictated that play and learning were not synonymous. Play has been placed at one end of the value scale, while learning and work were at the other.⁴

Scarfe said that play was defined as being the opposite of work. Work apparently has been considered a serious and important activity that ought to be done. Play was thought of as a frivolous and worthless waste of time in which weak characters indulge. This was found to be a gross misrepresentation of the fact.⁵ Authorities found that when an activity took on the characteristic of desired play, then normally more effort was expended and more work done.

Play and Intelligence

Studies of how intelligence develops in children reported that precisely the reverse of the above thinking was true and that play was the way in which children develop intelligence. To put it simply, play is the child's way of learning.⁶

Dr. Benjamin S. Bloom of the University of Chicago confirmed recent studies by psychologists and educational researchers that by eight years of age, the end of the most intense period of play, a child's

⁴Frank and Theresa Caplan, "This Issue," Theory Into Practice, XIII (October, 1974), p. 242.

⁵N. V. Scarfe, "Play Is Education," Understanding the Young Child and His Curriculum, ed. Belen Collantes Mills (New York: Macmillan Co., 1972), p. 127.

⁶Oattner, op. cit., p. 23.

personality, character, creativity, and academic motivation were 80 per cent accomplished, and that subsequent years enlarged the content but often did little to increase personal commitment or interest in learning.⁷

Mr. Scarfe referred to play as the most complete educational process of the mind, as nature's ingenious device for insuring that each individual achieves knowledge and wisdom. He further termed play as the most complete of all educational processes.⁸

Mary Evans said that to the young child play is life itself. Play fills the mind and body mentally, emotionally and physically. It is through the variety and depth of play that the child learns and grows. She said that, to the child, play is serious business; it is his world.⁹

C. J. Rosecrans called play the child's language. It is through play that we see his need for physical activity satisfied, his preparation for adult roles begun, his anxieties and fears shared, and his expectation and hopes displayed to the world. He said that until the child is old enough to establish the symbolic equivalence of emotional expression in words, he must speak in his own tongue--play. Through this he is able to display the joys and pains of childhood as his interactions with the world increase.¹⁰

⁷Caplan, op. cit., p. 242.

⁸Scarfe, op. cit., p. 125.

⁹Evans, op. cit., p. 267.

¹⁰C. J. Rosecrans, "Play--The Language of Children," Understanding the Young Child and His Curriculum, ed. Belen Collantes Mills (New York: Macmillan Co., 1972), pp. 117-118.

When the child's way of expressing himself becomes frustrated, inhibited, or otherwise inaccessible, we may afford him alternative methods, again in his own language, play, but therapeutic play.¹¹

Scarfe argued that too much emphasis has been placed on the therapeutic value of play in helping to understand the fear and anxieties and the disturbances of mentally ill children. He said that some people have overlooked the fact that children become ill largely because they have been deprived of the freedom and opportunity to play. He viewed play as being as "necessary to the mental health of the child as food is to his physical well-being."¹²

Another person who has had a great influence in giving play the respectability it deserves was Piaget, who, through his work, has shown that children come to learn, understand and achieve intellectual mastery through their interactions with their own environments.¹³

The Play Instinct

Play has been found to be a basic need of childhood. There is a play instinct in each child, a need to move in particular patterns and to carry out certain activities which will help bring about the maturation process. Alice Yardley said that if we require a five-year-old child to sit still, we are asking him to do something entirely foreign to his nature.¹⁴

¹¹Ibid., p. 123.

¹²Scarfe, op. cit., p. 127.

¹³Jean Piaget, Play Dreams and Imitation in Childhood (New York: W. W. Norton & Co., 1962), p. 62.

¹⁴Alice Yardley, "Movement and Learning," Today's Education LXIII(March/April, 1974), pp. 62-63.

Ethologists have noted that this need for play which brings about growth and development in children is also evidenced in animals. They have found that the young of many species engage in playful and even gamelike activities. They further found that the more complex the nervous system of the species, the more playful were their young.¹⁵

Gesell and Ilg also believed that children's play is not from an outer compulsion, but from inner necessity, the same kind of necessity that causes a cat to chase a rolling ball.¹⁶

Other studies by Gesell and associates on child development have also emphasized an inner urge to express physiological and psychological drives that find their outlets through play activity.¹⁷

The Importance of Play in Overall Development

Studies have indicated that play is essential to the development of (1) basic motor skills including perceptual-motor development and physical fitness and growth, (2) mental skills, (3) social skills, (4) emotional maturity, and (5) creative expression.¹⁸

Basic motor skills. Caplan found that preschool children relish play that gives them facility in locomotion and permits the maximum use of energy. They learn bodily control through active physical play:

¹⁵Arnaud, op. cit., p. 73.

¹⁶Rosecrans, op. cit., p. 118.

¹⁷Ibid.

¹⁸Peggy L. Miller, Creative outdoor Play Areas (Englewood Cliffs, N. J.: Prentice-Hall, 1972), p. 6.

running, jumping, skipping, pushing, pulling, hopping, climbing, balancing, throwing, and keeping up with their own age. Fun and exhilaration are components of physical play; and coordination and agility, which are necessary to the writing process, are enhanced.¹⁹

Through sensory motor activity, which, according to Piaget, is considered the primary mode of learning in young children, youngsters develop skills in their perception of body position and movement in space. Piaget also felt that a broad base of fundamental motor skills is necessary for the sequential and systematic mental growth and development of an individual. Simply stated, he felt that motor development is a prerequisite for mental development.²⁰

Mental development. Miller noted that play provides children with opportunities to engage in problem solving, particularly if play occurs in creative settings. Through play, youngsters learn communication skills. The earliest years are nonverbal years. Words come only from a foundation of play experiences, from encounters with people, objects, and events that make up the world. Through sensory play experiences, children learn such concepts as shape, size, and sequence. Then vocabulary grows. Play nourishes reflective thinking, association memory, and the naming, labeling, and classifying that is necessary for eventual mastery of reading.²¹

¹⁹Caplan, op. cit., p. 241.

²⁰Tennessee State Department of Education, Early Childhood Education Handbook (Nashville: State of Tennessee, n.d.), pp. 2-3.

²¹Miller, op. cit., p. 7.

Social development. Miller reported that children learn socialization skills through play. They grow from egoism, which characterizes the infant and young child, and become more other-centered. Play provides contacts with others without demanding inappropriate adjustments. Play also promotes the formation of social groupings. It was further found that through play, children learn about and grow to understand other people. They learn attitudes. They learn cooperation, the rights of self in relation to others, compromise, teamwork, sharing, conflict resolution, and group decision making.²²

Emotional maturity. Miller further observed that through play activities, children grow and develop in understanding and knowledge of themselves as individuals. The child learns self-confidence, self reliance, and independence, especially if he is provided opportunities to engage in "risk play." Through play, children build their own individual value systems and gain emotional fitness.²³

Creative expression. Play has also been said to provide children with ways to express their creative urges, with opportunities to perceive objects and chances to put things together in a new way. It has also been noted that play provides the individual with opportunities for imaginative acting and thinking.²⁴

Fantasy has also been found to be a vital need of childhood for which opportunities need to be provided if children are to be healthy and happy.²⁵

²²Ibid. ²³Ibid., p. 8. ²⁴Ibid.

²⁵Caplan, op. cit., p. 241.

Creation has been said to be a human need. If children are not provided outlets for the creative instinct, their growth and development are limited.²⁶

Importance of Outdoor Play

John Dewey and other Experimentalists felt that learning was the result of experiences. In general, they felt that the more widespread and varied these experiences, the broader the education would be. It is experiences that facilitate the growth of individuals, while deprivation of experiences limits growth.²⁷

Caplan said that when children are deprived of experiences, it becomes extremely difficult for them to reach their full physical, social, intellectual, emotional, and creative potentials.²⁸

For most children, the outdoors has been the most important environmental influence upon their lives. Therefore, authorities have said that schools should give greater attention and consideration to the kinds and quality of learning experiences which the outdoors can provide.²⁹

Outdoor play areas have been called outdoor classrooms. Therefore, it is felt that they deserve the same consideration in planning that has been given the indoor classrooms. These play areas can provide rich opportunities for youngsters to gain educative experiences through

²⁶Miller, op. cit., p. 8.

²⁷John Dewey, Experience and Education (New York: Macmillan Co., 1938), p. 65.

²⁸Caplan, op. cit., p. 240.

²⁹Miller, op. cit., p. 2.

play, which had been considered as the major means of learning in children.³⁰

Verna Hildebrand found that well-planned outdoor experiences served as a powerful support in all areas of development.³¹

Motor skills. Hildebrand wrote of the value of outdoor play in providing fresh air, sunlight, and exercise, which all promote good health. Such play also provides a setting and equipment that motivate the child to practice motor skills and to develop independence. Outdoor play further provides an opportunity for a child to imitate his peers and to compare his motor skills with theirs on an informal basis.³²

Intellectual skills. Outdoor play contributes to the development of the child's concepts of the order and beauty of nature. Children learn that spring follows winter and that summer follows spring. Children also learn names of the things in their environment, with the aid of the other children and their teachers.

Outdoor play also provides an environmental laboratory for learning about weather, plants, animals, and insects, and about such concepts as number, speed, gravity, height, weight, and balance.

Outdoor play has been found to further provide children the opportunity to learn to use and care for the outdoor environment, property, and equipment.³³

³⁰Ibid.

³¹Verna Hildebrand, Guiding Young Children (New York: Macmillan Co., 1975), pp. 191-215.

³²Ibid., pp. 194-200. ³³Ibid., pp. 201-204.

Social skills. Through outdoor play, children grow from egocentric infants to cooperative individuals. Outdoor play gives opportunity for children to practice social skills that enable them to get along with adults and their peers. The ability to get along with others has been considered to be one of the most outstanding challenges of our society.³⁴

Emotional maturity. In outdoor play, children learn to handle their feelings of joy and satisfaction or anger and hostility.

Outdoor play also allows children to express their feelings, to let off steam, to shout, to run vigorously, or to rest as desired.³⁵

Creative expression. Outdoor play allows children to use ingenuity and creativity in devising new ways to use their bodies, the equipment, and space and in creating games and dramatic play of their own choosing.³⁶

Spodek said that if educators hope to reach these goals, outdoor play should be given the same attention during planning as any other part of the curriculum. He continued, stating that although satisfying play can erupt spontaneously in children, the chances of fruitful play activities occurring is greatly increased with adequate preparation.³⁷

Guidelines for Developing Creative Outdoor Play Areas

Research has shown that a dull, uninteresting environment affects the way in which children experience life, how they react to and learn from it. Instead of providing a positive, enriching experience in the

³⁴Ibid., pp. 205-209. ³⁵Ibid. ³⁶Ibid., pp. 209-210.

³⁷Bernard Spodek, Teaching in the Early Years (Englewood Cliffs, N. J.: Prentice-Hall, 1972), pp. 210-211.

life of preschool children, many of our schools have provided a dull, uninteresting place in which children are expected to grow, create, and learn.³⁸

The majority of school playgrounds were found to be either places of tradition, equipment of steel or iron bars, surfaces of concrete or asphalt; or they were barren and neglected spaces because the authorities have not thought of them as the setting for worthwhile learning.³⁹

General guidelines. Kenneth F. Licht, an authority in the field of physical education, has said that playgrounds are designed; they don't just happen.⁴⁰ He has set up certain principles which must be followed if the playground is to succeed. They are:

1. The playground must be safe so that the child will not be injured and consequently discouraged from further, more challenging and innovative play.

2. The playground must provide the child with opportunities for unhindered play in a perceptually rich and challenging environment, scaled to his physical, mental, and emotional capabilities.

3. The play area, with its apparatus and facilities, must enable the child to succeed at his level and motivate him to originate and undertake more challenging activities.⁴¹

³⁸Paul Curtis and Roger Smith, "A Child's Exploration of Space," School Review, LXXXII (August, 1974), p. 671.

³⁹Peggy Miller, *op. cit.*, p. 2.

⁴⁰Kenneth F. Licht, "Safe Playground Design," American School and University, XLVII (December, 1974), pp. 23-25.

⁴¹*Ibid.*

Simply, Licht said that playgrounds must be flexible to meet the needs of the children who are the users, and not what adults think children should like.

Involving children in planning and developing. Authorities have agreed that children should play an active and responsible role in planning their playgrounds. This was done successfully by Robin C. Moore, who is an environmental designer and recreation planner. He asked the children to make drawings of their favorite places. He also made tape recordings of their likes and dislikes.⁴²

Another authority suggested that, as Piaget's theories about development of children were derived from careful observation, the designers of playgrounds must base their ideas on the experiences of watching how children play.⁴³

Specific guidelines. Texas Education Agency found that some specific guidelines must be given consideration in planning a child-centered outdoor play area. The following were suggested:

1. Space. Space for freedom of movement is considered a must in the outdoor play area for young children. The minimum amount recommended ranges from 150 square feet to 200 square feet per child.⁴⁴

The most desirable arrangement was found to be when the outdoor

⁴²Robin C. Moore, "Anarchy Zone: Kids' Needs and School Yards," School Review, LXXXII (August, 1974), pp. 621-633.

⁴³Dattner, op. cit., p. 53.

⁴⁴Texas Education Agency, Schools for Young Children (Austin: State of Texas, 1956), pp. 50-51.

space was adjacent to the indoor space with easy access to the toilets.⁴⁵

Another recommendation was that the equipment be arranged so that the children can move from one place to another without running into one another or the equipment. There should be sufficient play spaces to avoid having to wait for a turn, or overcrowding in certain areas.⁴⁶

2. Attractiveness. The creative outdoor play area should be aesthetically pleasing in terms of color and material. Children love bright colors--reds, yellows, and blues. Some have also suggested painting the equipment in wood colors, such as redwood, to complement the natural surroundings.⁴⁷

3. Materials. Licht and others agreed that playground equipment needs to be of the best quality. Wood is usually considered the most logical to use. However, donated wood is often of second rate quality and has the disadvantage of needing to be treated and painted regularly. Edges and surfaces need to be smoothed to guard against splinters, rough areas, or pinch points.⁴⁸

Steel and aluminum were considered to be more sturdy, but they have the disadvantage of being hot in the summer, cold in the winter, and slippery when wet.⁴⁹

⁴⁵Ibid. ⁴⁶Hildebrand, op. cit., pp. 210-211.

⁴⁷Southeastern Day Care Project, Planning Playgrounds for Day Care (Atlanta: Southern Regional Education Board, 1973), p. 23.

⁴⁸Licht, op. cit., p. 24. ⁴⁹Ibid.

4. Surface. The surface of a playground was said to dictate how the area would be used. Concrete and asphalt are considered ideal for riding wheel toys but can be uninviting for other types of play. Not only are these surfaces harsh and sterile looking, but a hard surface is unfortunate for the falls.⁵⁰

Grass was considered to be the ideal surface, but it must be well drained for faster drying. Other surfaces recommended were pea gravel, sand, outdoor turf, and outdoor carpet.⁵¹

The best solution recommended was a combination of surfaces: asphalt for trike paths, sand under climbing structures, and grass in open areas.⁵² Variety was found to be desirable for both practical reasons and aesthetics. Different textures were felt useful in offering the child a variety of sensory experiences.⁵²

5. Safety. There was general agreement that safety must be the primary consideration in the design of a preschool playground. The equipment should be the kind that requires a minimum of adult supervision. It was recommended that the area be developed so that when the inevitable tumbles and collisions occur, children's hurts would be minor.⁵³

Licht felt, however, that the playground should provide a challenge. Authorities said that there can be no challenge without

⁵⁰Jane B. Moore and Aletha W. Bond, "Playgrounds, An Experience Center for Elementary Physical Education," Journal of Physical Education and Recreation, XLVI (January, 1975), p. 22.

⁵¹Ibid. ⁵²Southeastern Day Care Project, op. cit., p. 15.

⁵³Licht, op. cit., p. 25.

risk. Meeting these challenges successfully prepares the child for maturity by giving him a sense of his own capabilities as well as his limitations.⁵⁴

Creative Play Equipment

Taylor found that simple things were often the most fun and best loved by children. The most expensive piece of play equipment may be ignored for a simple cardboard box or a spool.⁵⁵

Observation of children in the outdoors where no playground equipment is present reveals some of the activities they love best-- climbing and walking on tops of fences and stone walls, swinging and hanging from ropes, climbing trees, and jumping ditches.⁵⁶

Equipment need not be expensive or sophisticated. One author, in fact, said that if every child had a strong, willing tree to climb, full bushes in which to hide, and hills to run up and down, there might be no need for playgrounds.⁵⁷

General considerations. In choosing equipment for a preschool playground, certain considerations have been suggested as part of good planning:

1. Traditional or modern? Studies have shown that, by its very nature, equipment often dictates to the children exactly how it

⁵⁴Ibid.

⁵⁵Jan S. Paul, "What Ever Happened to the Simple Spool?" The PTA Magazine, LXIX (October, 1974), p. 31.

⁵⁶Barbara J. Taylor, A Child Goes Forth (Salt Lake City: Brigham Young University Press, 1965), p. 119.

⁵⁷Ibid.

shall be used. This is true of traditional iron and steel play equipment, which is extremely limiting; however, recently there has been a great interest in playground equipment built in the shape of fire engines, horses, rocketships, submarines, and other such objects from the real world, which is just the other extreme of the fixed gray metal equipment. These are of momentary interest to children.⁵⁸

However, as one day care director said, "It does not lend itself to being anything but what it is supposed to be and will soon be discarded for simpler and cheaper things."⁵⁹

Some playground designers have been experimenting with all sorts of free-form climbing units, multi-directional swings, slides as part of larger climbing units, etc. Educators have found that the versatility has proved a real asset.⁶⁰

2. Manufactured or homemade? One of the decisions to be made in choosing playground equipment is between manufactured and homemade equipment. Many authorities preferred the homemade because it can be more responsive to a program's individual needs and capacities of particular ages, whereas manufactured equipment comes "one-size-fits-all."⁶¹

Proponents of this idea also believed that there are more opportunities for creative play provided by free-form materials. They further liked the idea of the playground not being sterile and institutional looking.⁶²

⁵⁸Southeastern Day Care Project, op. cit., p. 21.

⁵⁹Ibid., p. 22 ⁶⁰Ibid. ⁶¹Ibid., pp. 22-23. ⁶²Ibid., p. 24.

On the other hand, proponents of manufactured equipment argued that ready-made equipment would last longer and required less upkeep.⁶³

3. Permanent or portable? Whether equipment is manufactured or homemade, the decision must be made as to whether it should be installed and stationary or portable and moveable. Although there has been some disagreement among authorities in the field, most have agreed that the decision depends upon the particular piece of equipment. The general agreement has been that a combination of permanent and portable is best.⁶⁴

There should be small pieces of equipment that are interchangeable and multipurpose, so that children can remake their play areas. Youngsters like to carry and rearrange things.⁶⁵ This also adds variety to the play area.

On the other hand, it was felt that large pieces such as climbers, playhouses, slides, and swings are better installed permanently in order to make them more stable.⁶⁶

In his study, Moore found that the majority of children preferred permanently installed equipment and adult-made structures over the temporary constructions they made themselves.⁶⁷

Licht felt that one of the problems with playground apparatus was that moving equipment provokes accidents. He contended that it is the children that should move and not the equipment. For younger children, he found that most moving equipment was over challenging.⁶⁸

⁶³Ibid. ⁶⁴Ibid. ⁶⁵Miller, op. cit., p. 39.

⁶⁶Southeastern Day Care Project, op. cit., p. 25.

⁶⁷Robin Moore, op. cit., p. 629. ⁶⁸Licht, op. cit., p. 24.

Specific considerations. Research has shown that good planning is necessary to get the most possible use out of the playground and the equipment. In order for the outdoor playground to aid in meeting the educational goals, it is necessary to consider the values of the equipment in light of the areas of development.

1. Motor development. The preschool child is developing his large muscles and needs proper equipment to help him. Some of the best kinds are a good assortment of boards and boxes, a jungle gym, or a climbing apparatus of some kind. The best one was said to be one that includes different possibilities--ropes, ladder, steps, pole, a play-house, and a platform on top.⁶⁹

There should be wheel toys. Tires or tubes also help children release excess energy. They are exciting to roll, climb through, jump on, and bounce on.⁷⁰

2. Intellectual development. Gardens provide many opportunities for the child to develop intellectually. Children learn by planning, selecting the proper tools, waiting for the blooming or harvesting, and, finally, the actual harvesting itself. They also learn many science concepts through outdoor experiences. Gravity, the properties of inclined planes and teeter boards, and balance are examples.⁷¹

3. Social and emotional development. Authorities have found that outdoor activity naturally stimulates social interaction. Youngsters make deliberate and highly personal choices as to whether they

⁶⁹Taylor, op. cit., p. 119. ⁷⁰Ibid.

⁷¹Hildebrand, op. cit., pp. 201-204.

will play, how, and with whom.⁷²

Through the use of all of the playground equipment, the child practices interpersonal relationships with his equals and learns consideration, as well as techniques for leadership. Spontaneous dramatization, role-playing, doll play, and disguises enable a child to work out personality difficulties and emotional disturbances.⁷³

4. Creative expression. Caplan also found that children initiate unusual uses for equipment. Moveable equipment such as cubicles, planks, etc., may become houses, boats, and airplanes through imaginative play. Sand has been found to offer many opportunities for imaginative and creative play, especially with the addition of props such as strainers, spoons, molds, buckets, shovels, cars, and various toys.⁷⁴

Painting also helps the child to communicate his view of nature.⁷⁵

SUMMARY

The tendency to regard children's play as a waste or misuse of time has come under re-examination in the past few years. Authorities in the area of child growth and development have studied the effects of play on the total development of children. Studies have shown that play is the major medium of learning for children and is essential to the development of (1) basic motor skills, including perceptual-motor skills, (2) mental skills, (3) social skills, (4) emotional skills, and (5) creative expression.

⁷²Caplan, op. cit., p. 240. ⁷³Ibid. ⁷⁴Ibid

⁷⁵Taylor, op. cit., pp. 120-121.

In a program for young children, the outdoor play area is particularly important, for it is as much a learning environment as the indoor classroom.

If the goal of a preschool program is to expand a child's experience, to provide a wide range of activities, to develop the total child, then the importance of the outdoor playground can not be minimized.

The young child is growing rapidly. He has special needs, some of which can only be met outdoors. For large muscle development, a child needs plenty of room and equipment to tumble, jump, and climb. Certain equipment such as wheel toys, large climbers, and swings are suitable only for outdoors.

The outdoors gives a child a chance to expand his capacities and to meet new challenges. Some activities take on new dimensions when outdoors. For example, a child learns concepts such as the order and beauty of nature. He learns to name and classify things in his environment. Caring for a terrarium indoors is a completely different experience from growing vegetables outdoors.

The larger outdoor space expands the life space for the child, for it gives him many options--he can get away from the group, form his own group, or play by himself. Outdoor play gives him opportunities to learn about himself and others, thus developing his social and emotional skills. Opportunities for socialization are varied and take place more spontaneously.

Activities such as sand and water play are more practical outdoors. These, as well as other types of play, combine to give children the opportunity for creative expression.

Playgrounds must be designed to meet the needs of the children who are the users and not be what adults think children should like.

In developing a child-centered playground, children should play an active and responsible role in the planning. This has been done successfully by having children draw pictures of their favorite places, and by talking with them about their likes and dislikes.

Some specific guidelines must be given consideration in planning a child-centered outdoor play area. Consideration must be given to the amount of space recommended per child, the most suitable material, and the proper surface for each particular area, as well as the attractiveness of the playground.

There are differing views about designing and developing playgrounds and the advantages and disadvantages of different equipment. Authorities disagree as to whether the equipment should be traditional or modern, manufactured or homemade, permanent or portable.

All agree that safety must be the primary consideration in the design of the playground. Safety should, however, be provided as a means to greater adventure, not as a deterrent to vital, expanding experience. A playground should provide a challenge to its users, for that is how children grow. Meeting challenges successfully prepares the child for maturity by giving him a sense of his own capabilities, as well as his limitations.

Chapter 3

THE DESIGN OF THE PLAYGROUND

The outdoor playground at White Bluff Elementary School, where the author had been teaching kindergarten for six years, was bleak, barren, and short of equipment. The purpose of this study was to develop a play area that was child centered and would be instrumental in the development of (1) basic motor skills, including perceptual-motor development and physical fitness and growth, (2) mental skills, (3) social skills, (4) emotional maturity, and (5) creative expression.

PROCEDURE FOR SECURING APPROVAL

Permission for redesigning the playground was secured through correspondence from Mr. James E. Sullivan, Superintendent of the Dickson County Board of Education, and from Mr. James G. Brown, principal of White Bluff Elementary school. Both Mr. Sullivan's and Mr. Brown's assurance that their full cooperation would be given was fulfilled throughout the project.

Mr. Brown suggested that, rather than attempt to secure funds from the White Bluff Parent-Teacher Association as was proposed, school funds would be available if the total cost did not exceed one thousand dollars.

PROCEDURE FOR COLLECTING DATA

The Woodward Library at Austin Peay State University was visited in order to obtain expert opinions and creative ideas on the subject. Books and periodicals (current and bound) were explored. Reference books were searched for related information. Names and addresses of publications regarding the subject were secured. Pertinent pamphlets, brochures, plans, and designs were ordered from the National Association for the Education of Young Children¹ and other sources; and these materials were studied. Some of these materials were free or inexpensive, while others were rather costly.

The data collected from children regarding their likes and dislikes came from the population of kindergarten children at White Bluff Elementary School.

A bulletin board was made displaying many different types of playgrounds. The children were then asked to describe their favorite type of equipment and what they would include if they were building a playground. These conversations were taped. Later the children were asked to draw their favorite play equipment.

Appointments were made, either by telephone or correspondence, to visit authorities and playgrounds at other localities. Among those who were most cooperative were Mr. Charlie Allen, director of the child care center at the University of Tennessee in Nashville, and Mrs. Lois Brown from the Campus School in Murfreesboro, Tennessee.

¹National Association for the Education of Young Children, 1834 Connecticut Avenue, N. W., Washington, D. C. 20009.

Plans were also obtained from Mrs. Lane Boutwell at Middle Tennessee State University, Murfreesboro, Tennessee.²

Some of the playgrounds visited were: David Lipscomb Kindergarten; Donner Belmont Methodist Church Day Care Center; Peabody Demonstration School, all in Nashville, Tennessee; the Campus School, Murfreesboro, Tennessee; University of Tennessee at Martin Kindergarten, Martin, Tennessee; Montgomery Central Elementary School, Cunningham, Tennessee; and the Community College Day Care Center in St. Louis, Missouri.

The author observed children at play in many of these areas, watching for overcrowded areas, for abandoned pieces of equipment, or for areas that attracted very few children.

PROCEDURE FOR USING THE DATA COLLECTED

Once the data were collected, much was learned about designing and developing playgrounds, the advantages and disadvantages of different approaches, different equipment, and what role a teacher plays on the outdoor playground.

There were differences of opinion as to whether the equipment should be portable or permanent. Mr. Allen felt that very little, if any, should be permanent because it took unjustified space and was limited in its use. He further felt that children learn more by being furnished with boards and spools and by being allowed to build their own structures. On the other hand, Mrs. Boutwell was a strong advocate of essentially

²Mr. and Mrs. Lane Boutwell, Kindergarten Classroom Equipment. Distributed by Tennessee Department of Education. (Murfreesboro: Middle Tennessee State University, October, 1969).

permanent structures.

A decision was made to use a combination of permanent and portable equipment. This included small pieces of equipment that were interchangeable and multipurpose so that the children could remake their play area. The large pieces such as climbers, swings, and slides were permanent.

Most authorities agreed that a variety of surfaces, including asphalt, concrete, sand, and grass, was desirable, both for practical reasons as well as the aesthetic value.

For the project, a variety of surfaces was used. The large area and hill for running and tumbling would be grass. The area under the climbing structures would be sand, while an asphalt area would be used for wheel toys and the concrete area for games.

Although there were some differences of opinion as to the type of material most desirable, wood was considered to be the best choice for this particular play area because it could be built to fit the space available and because first-rate quality, planed wood was donated by a local sawmill; and labor for treating and painting it was free. Brightly painted wood was also more attractive. This was a major consideration in planning a child-centered playground. Steel was used for the swing frames, the slide, and the fireman's pole.

In studying the survey of children's opinions at the White Bluff Kindergarten, the writer found the top choices to be treehouses (climbers), slides, and swings. A few suggested some type of ball.

DESIGN OF THE PLAY AREAS

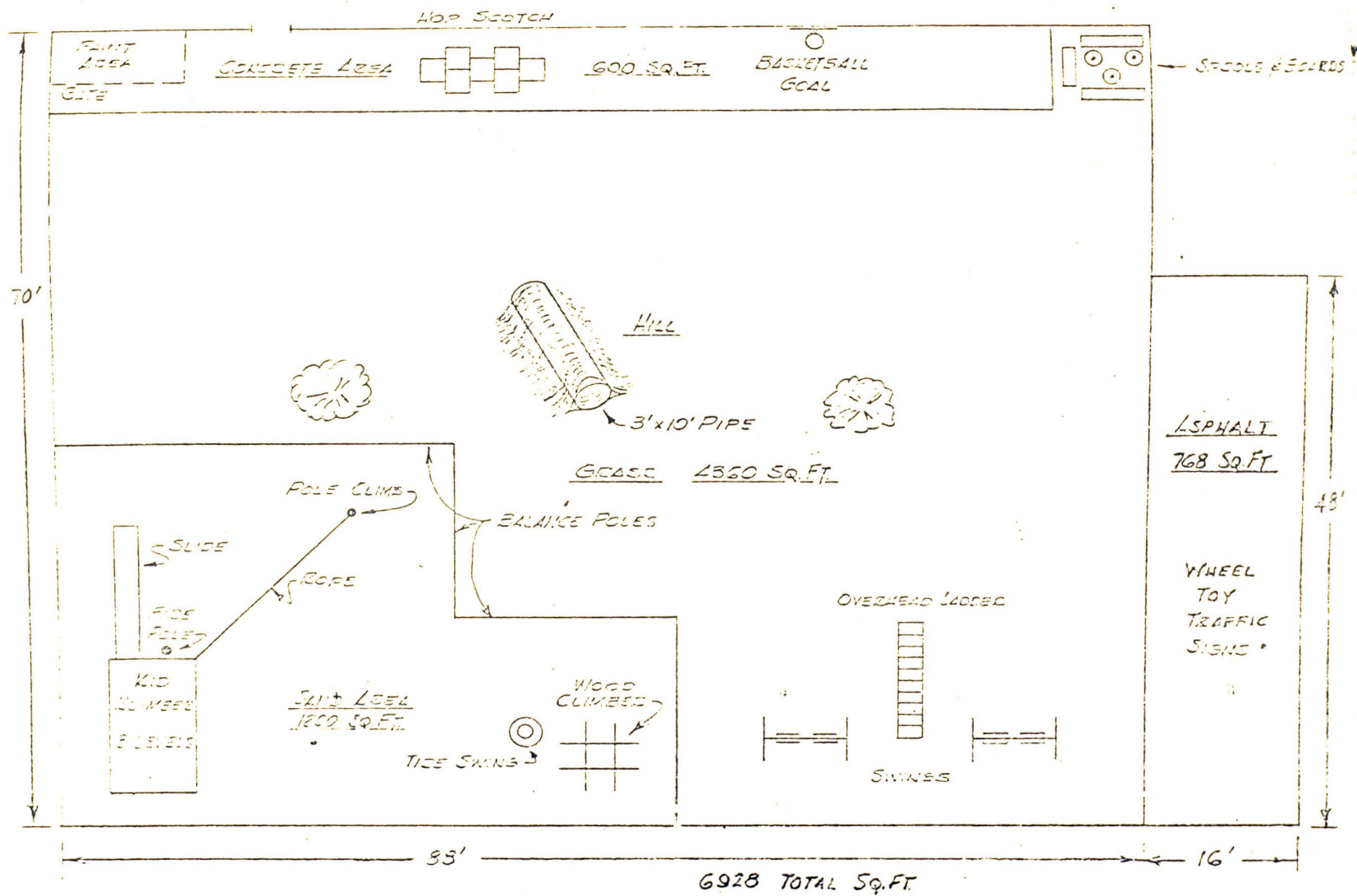
After the data were collected and studied, it was necessary to devise a plan for the particular area at the White Bluff Elementary School Kindergarten. This plan was developed with all areas of child growth and development in mind.

The lot, which was adjacent to two kindergarten classrooms, was measured and found to be a rectangular area, 70 feet by 88 feet. It was enclosed by a six-foot, chain-link fence. The play area was a sparsely grassed lot with two small maple sapling trees. It consisted of a three-foot wide concrete sidewalk, one eight-foot wooden free-form climber,³ and a small six-by-six-foot sandbox. This sandbox had been the scene of numerous fights and disagreements because of overcrowding.

The total area of the existing playground was 6160 square feet. Since there were from 50 to 75 children using it, this allowed only 82 to 123 square feet of space per child, whereas the amount of available space recommended by most sources was between 150 and 200 square feet per child. Therefore, the major limitation for this project was the amount of space available. (See diagram on following page.)

The principal was contacted, and he agreed that the existing fence could be moved sixteen feet over onto the asphalt. This would serve a two-fold purpose, that of allowing 768 square feet more space, plus providing an asphalt surface for riding wheel toys and for traffic

³Merle B. Karnes, PEECH Project: A Model Learning Playground (Champaign, Illinois: Bureau of Education for the Handicapped, College of Education, University of Illinois, n.d.)



signs. This gave a total space of 6928 square feet. This area provided for large muscle development.

Mr. Brown, the principal, further agreed to filling in the four-foot wide area between the sidewalk and the school building with concrete to allow six hundred square feet of concrete for a game area. Hopscotch was painted in one portion; another portion was provided for jump rope, while another portion was used for a basketball area with a backboard and goal attached to the wall of the school building. Along the fence in this section was provided a paint wall. This area allowed for large muscle development, coordination, recognition of numerals, and creative development.

To aid with the space limitation problem, a "kid klimber"⁴ was included. This was a three-level wood construction, which extended the amount of available space into the air. The size of this climber was scaled down to complement the existing free-form climber. The "kid klimber" provided a slide, steps, a ladder, a fireman's pole, and a rope for handwalking as exits. A vertical pole with climbing extensions was located near this climbing apparatus.

The existing free-form climber⁵ was painted in bright reds, blues, greens, and yellows; and a horizontal tire swing and a rope ladder were added to this climber.

The small sand box was eliminated, and a 1200-square-foot sand area was located under the climbing apparatuses. This sand area served

⁴Educational Materials and Publications, "Learning Stuff" (Modesto, California: Fall, 1975).

⁵Karnes, op. cit.

a multipurpose: that of a creative play area with plastic buckets and shovels, cups, and bottles for measuring and building, and for protection under the climbers for any tumbles that might occur. The boundaries of the sand area were logs, which served as balance beams.

Four swings, with rubber-belted seats for safety, were included to promote coordination as well as social development. A ten-by-eight-foot horizontal overhead ladder was chosen for strengthening the arms and for creative play. A large 4360-foot grassy area with a tunnel under a small hill⁶ provided an area for running, tumbling, and crawling. This area also allowed for additional structures if the need should arise. Also included in this area were brightly painted spools and boards for the children to build their own structures. A small area outside, but adjacent to, the chain-link fence was used as a garden spot. This area was outlined with brick to prevent traffic from running into it.

After the plan was devised, it was re-examined for assurance that areas and equipment were included that would foster the total development of the children.

Motor Skills

For the development of large muscles, climbing apparatus were included. Asphalt surfaces and wheel toys, a rope ladder, a vertical climbing pole, a slide, balance beams, an area for basketball, and a grassy area and hill for running and tumbling were included.

⁶Peggy Miller, Creative Outdoor Play Areas (Englewood Cliffs, N. J.: Prentice Hall, 1972), p. 40.

Mental Skills

A garden was included for growing and harvesting vegetables; a game area with hopscotch was included, which would aid in recognition of numerals; and traffic signs were incorporated in the asphalt area for recognition of shapes and colors and later recognition of words.

Social Skills

The large sand area was designed for socialization and to discourage disruptions; the horizontal tire swing allowed two or three to swing together. Spools and boards were also added so that children could share in building their own structures. The tunnel provided a hiding place for two or more children.

Emotional Maturity

Plenty of open space was provided to allow the children to let off steam, to shout, to run vigorously, or to rest as desired. All of the equipment was designed to give the child a sense of his own capabilities as well as his limitations.

Creative Expression

The variety and complexity of all of the equipment was expected to encourage the children to manipulate and rearrange. However, certain equipment such as spools and boards, the large sand area with cups, buckets, shovels, and bottles, and the paint area were designed to allow the children to create. The "kid klimber" was also designed to be used as a stage for dramatic and creative play.

CONCLUSIONS

Authorities in the field of early childhood education have said that play is the most significant way in which children learn, being the initial state in the lifelong process of learning which every individual experiences.

A child-centered playground is a place for children to run, to leap, to shout, to climb, to find expression for their energy and their ideas.

The playground should be designed to meet the needs of the children, who are the users, and not what adults think children should like. Children should play an active and responsible role in developing their playground.

Space and equipment communicate to children. These tell children how to act and how not to act. What they tell children is related to what is in the space and how it is arranged.

There are certain factors that must be considered in organizing playground space and equipment.

Before permanently installing any piece of playground equipment, care should be taken that the best spot has been chosen, the scale is appropriate, the children can be supervised easily, and changes can still be made in the rest of the playground.

In organizing a playground, it is important to provide clear paths and adequate empty space. Empty or open space is necessary to accommodate the enormous amount of active play.

Two of the factors to consider in planning a child-centered playground are variety and complexity.

Planning for variety insures that a child has an interesting choice and that there will be ample opportunity for play. Some questions to be asked are: How many different kinds of equipment are there? What different types of play spaces are there, active or passive, enclosed or open? Will the space interest the children?

Complexity is the measure of the potential for active manipulation and alteration by the children. How much effect or control can a child have on his play environment? The equipment should have sub-parts, and the play area should have materials so that the child can build and rearrange his world and create new ones.

Planning for variety and complexity on the playground expands the possibilities for play for more children. The children are continually challenged and stimulated; they learn to mold, to manipulate, and to change their environment.

A play space that is continually interesting, that provides new opportunity, is a real learning environment and a real asset to a preschool program.

SUMMARY

Written permission was received from Mr. James E. Sullivan, Superintendent of Schools, Dickson County, and Mr. James G. Brown, principal of the school, to build a child-centered playground at the White Bluff Elementary School Kindergarten. Funds not exceeding one thousand dollars (\$1,000) were secured from the school funds through Mr. Brown.

The information collected was not "hard data," but rather insights and conclusions that came from observations and interviews

with children and with program directors in different localities.

The data were grouped into three groups:

1. Recommendation of authorities obtained from pertinent literature.
2. Observations of the author and from program directors in other localities.
3. Opinions of the children.

A plan was devised from a combination of all of the above data and with the total development of the child in mind. Areas and equipment were included that would foster development in (1) basic motor skills, physical fitness, growth, and perceptual-motor development, (2) mental skills, (3) social skills, (4) emotional maturity, and (5) creative expression.

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