Creative play and child development

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CREATIVE PLAY AND CHILD DEVELOPMENT

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The authors aim is to present an hypothesis and data which will substantiate the premise that the power of play is all pervasive.

As a teacher in the public school system at the elementary level, the author sets forth how play serves children, and even adults; how it can help strengthen personality, encourage interpersonal relations, further creativity and the joy of living, and advance learning.

Also to be explored are the ideas of some of the early pioneers of play who used play as a dynamic tool in child development and education and in play therapy.

Take any book on the philosophy of education and check the index to see if it contains the work "play." One may find "Plato," but rarely "play." Many philosophers have assumed that man's ability to survive has been a tenacious contest. Actually, man has prevailed because he was more playful and steadfast than other creatures. Eric Hoffer takes this same idea a step further and had this to say: "Whenever you trace the origin of a skill or practice which played a crucial role in the ascent of man, we usually reach the realm of play" [Hoffer, 1967, pp. 17-21]. Every utilitarian device, according to Mr. Hoffer, has evolved from some non-utilitarian pursuit or the pastime of play. For example, the wheel, the sail, and the brick were probably invented in the course of play; and although the Aztecs did not have the wheel, their
playthings had rollers for movement. Thus play has been man's
most useful preoccupation. Man as an artist is infinitely more
ancient than man as worker. Man has made his greatest progress
when not grubbing for necessities, when nature was so bountiful
that he had the leisure to play and the inclination to tinker.
It is the child in man that is the source of his creativeness.

The author has tried to make clear throughout this paper that
she is discussing play and education as it is known in the United
States and is addressing herself to all those parents and pro-
fessionals who have some awareness of the power of play. It is
the author's hope that her presentation will arouse interest
in others.
ACKNOWLEDGEMENTS

It is difficult to know where to begin with acknowledgments for the task of writing this Master's Project. Admittedly, one's growth is constantly affected by people around one and by one's successive experiences. To the extent that I am aware of these influences, these are acknowledged in this collective statement. There are, however, persons and experiences that call for special mention because of their decisive input.

Especially noteworthy are Dr. Adria Klein my project advisor who was extremely considerate and helpful to me, and Dr. Margarate Lenz my committe member.

To my parents, Ed and Olga, who were so patient and kind during my undergraduate work.

To my husband, Richard, I owe more than words can say. I am most grateful and indebted to you for the love you've shown me, kind words you gave me and selfless support you brought me.

And last but not least, I dedicate this paper to all who know how hard it is to play.
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Children laugh and learn at play and need lots of time to grow. They're only ours for a little while, and soon they go.

If they find happiness in learning, in their own time and place, could these leaders of tomorrow, make our world a better place

*from Teaching Children to Love Themselves by Terry Lynne Graham and Michael E. Knight.*
INTRODUCTION

Anyone interested in play has had to face the difficulty of capturing what it is. The word play, as it will be used in this paper, means first of all a pleasurable activity. In line with this we would like to distinguish between play and games. A game is bound by rules and may often be anything but pleasurable. Such games as poker, golf and bowling, when entered into with a driving competitive compulsivity, are obviously neither pleasurable nor play.

If we observe young children or other young animals such as puppies or kittens at play, we can soon see that it is usually a way of venting excess energy while at the same time practicing for life. Perhaps the most important distinction between play and games is that a game is entered into for the purpose of winning. Games are, therefore, by their very essence competitive and aggressive. Play, on the other hand is by its very nature creative.

In a society like ours, based on the Protestant work ethic, can we allow ourselves the luxury of focusing on play? Similarly, in our pragmatically oriented culture, what role is there for imagination, which may seem only an idle passing of time, with no immediate tangible results? And lastly, in our democratically oriented society, what place is there for recognition of unique contributions or for the individual who does not fit the average mold?

We could of course, refer to play as child's work and thereby gain respectability for our topic and, historically, there is precedent for such an interpretation [Dewey, 1913; Froebel, 1895; Greffiths, 1935; Pestalazi, 1898]. We could defend our interest in imagination by pointing out the real life value of role playing
in the young child, of vocational decision making by way of fantasizing in the adolescent, and of working through hostility by imaginary exploits and confrontations in the adult. And, again, there is concrete evidence for imagination aiding these aspects of behavior [Erikson, 1940; Jersild, Markey, & Jersild, 1933; Jones, 1968, Markey, 1935; Piaget, 1945; Singer, 1966; Symond, 1942]. Creativity, too could be viewed from its lowest common denominator, and a case can be make that each and every one of us is creative to the extent that we discover things new to us, make things we never make before, and bring our very own interpretation to the world around us.

The study of play in childhood is most definitely following an accelerative path. In the past 5 years or so more than twenty research based books have been published in the area of children's play [Sutton-Smith, 1982]. Moreover, in a recent Handbook of Child Psychology (chapter on play), Rubin et al. [1982] cite approximately 450 different journal articles, books and convention presentations concerning the psychological aspects of children's play of which 20% were dated between 1970 and 1974, 38% between 1975 and 1979, and 14% after 1980. Given the exhaustive literature review in the Handbook chapter, it is interesting to discover that over 50% of the extant writings have been produced after 1975.

Why has there been such a sudden upswing in the psychological study of play? The author believes it may be related to a re-discovery of how a phenomenon once thought to be developmentally trivial and psychologically irrelevant [Montessori, 1973; Schlosberg, 1947] actually can play a major role in development.

In recent years the Piagetian [1962] view that play reflects
pure assimilation and egocentrism has been translated into the view that play provides a psychometrically useful mirror of the development of symbolic representation [Rubin et al; Rubin and Pepler, 1980]. Further, play is viewed as consolidating and strengthening newly learned schemas [Fein, 1979; Saltz, 1980] and as directly causing advances in cognitive, social and social-cognitive development [Saltz, 1982; Brodie, 1982].

Throughout recorded time there have been philosophers and educators who thought and wrote about the learning power of play and the importance of the beginning years of child life. There have been gifted, playful artist and craftsmen who have heightened the power of play with their toy designs. Then came child psychologists and education researchers who highlighted new findings in the stages of child development. Making their special contribution were those pioneering toy manufacturers who have helped make playthings and play a vital facet of the educational scene. In this chapter, therefore, the author is presenting a cursory review of some of the major contributors to child development and learning through play.

Although the value of play was noted by many early pedagogues, only now is greater appreciation apparent, not only for deprived children, but for all children everywhere. The premise that a child's beginning years are the most crucial is not new. It has been expressed countless times in as many different ways. What is new and exciting is the increasing amount of research activity and evidence in its support. The ancient Greeks were the first exponents of play in education. One of the earliest recorded and most universally known aids in recreation was the ball; both children and adults
have been depicted as playing with it. Also, in early times at least, both boys and girls played ball, and the Greeks valued it particularly for the elasticity it gave to the figure. Toy soldiers and toy weapons soldiers and toy weapons come to us from the Middle Ages lending support to the thesis that most physical action games and sports derived from competition and warfare. In Education by Plays and Games, published in 1907, George Ellsworth Johnson wrote: "Plato urged stage legislation in regard to the games of children and condescended to give good practical advice to mothers on nursery play that would be ideal for a modern mother's meeting. In the women's chamber, for both boys and girls, were the rattle, ball, hoop, swing, and top. The boys also had stilts and toy carts, and the girls, dolls. Children sometimes make their own toys.

Plato . . . encouraged free play, those "natural modes of amusement which children find out for themselves when they meet." In the following quotation from one of Plato's books of The Laws, he appears to be advocating the setting up of nursery schools, "At the stage reached by the age of three, and the after ages of four, five, six, play will be necessary. There are games which nature herself suggests at that age; children readily invent these for themselves when left in one another's company. All children of the specified age, that of three to six, should first be collected at the local sanctuary, all the children of each village being thus assembled at the same place. Further, the nurses are to have an eye to the decorum or indecorum of their behavior . . . ." (The nursery school teachers in those days in Greece were often highly educated people).
In The Republic Plato wrote; "Our children from their earliest years must take part in all the more lawful forms of play, for if they are not surrounded with such an atmosphere they can never grow up to be well conducted and virtuous citizens." Plato also wanted to "let early education be a sort of amusement, for that will better enable you to find out their natural bent," which indicated that he understood that one can learn much about children by watching them play. One notable record of play among the less privileged classes comes to us in pictorial format. In his painting, The Games of Children, the sixteenth-century artist Pieter Breughel the Elder, shows boys and girls playing leapfrog, hoops, tag, playing blind-man's bluff, climbing on wooden horses, and piling up on top of one another. Most of the games are physical and outdoor activities.

Although no definite system of play was followed until Froebel's time, many writers and teachers recognized its value in education, and some even make practical use of it. The teachings of Plato, Socrates, and Aristotle greatly influenced the philosophers, educational theorists, and teachers who were to follow them in other parts of the world.

While the early impetus of putting the child on center stage came from Europe, particularly from France and Germany, it was the writing and teachings of John Dewey in the United States that emerged as the most powerful influence in according respectability to a child's play. It becomes apparent that part of play is integrated into the classroom when Dewey asserts, in discussing The Child and the Curriculum, "Whatever is uppermost in his mind constitutes to him, for the time being, the universe, That universe is
fluid and fluent; it tends to dissolve and re-form with amazing
rapidity but after all, it is the child's own world" [Dworkin,
1959, pg. 93].

The trend toward child-centeredness, began in the eighteenth
century and developed in the nineteenth, was further helped by the
work of Freud and Piaget in the twentieth century. While their major
interest was personality dynamics and the development of thought,
respectively, their analysis of early childhood activities had,
of necessity, to take in the area of play.

Within the historical perspective, the movement has been from
adult games to child's play, and, correspondingly, the underlying
philosophy has moved from a competitive, rule-dominated foundation
to the spontaneity, freedom, and sense of fun.

Interestingly, an examination of the extant published studies
concerning the correlates and consequences of play reveals a con­
sistent citation pattern. Those who investigate the relations between
play and role-taking, quantitative invariance, language development
and other indices of symbolic representation typically refer to
Piaget [1962] or Vygotsky [1967] as providing the major theoretical
impetus for their work. Other researchers typically indicate that
the feelings of comfort, relaxation, and security engendered within
the play context promote the diversive object exploration necessary
for the development of problem-solving and/or creativity. The theorists
generally cited in this area include Berlyne [1969], Bruner [1972],
Hutt [1976], Lieberman [1977], and Sutton-Smith [1976].
REVIEW OF THE LITERATURE

Introduction

The human infant is a "social organism" as soon as he is born. While his role in social relationships is fairly passive in the beginning of his life, his responses grow increasingly more active. The brand new baby starts quickly to build and use skills for living with people. Thrust abruptly into the complicated world with its myriad social institutions, customs, values, ideas, and language, he continually struggles to find his place. For many years his immaturity keeps him within the confines and protection of his family. Then as he becomes increasingly more self-sufficient, he begins to advance beyond the limits of his home into the realm of the larger society.

Extensive animal research points conclusively to the need for frequent changes in environmental challenges, especially for human infants. The research thus far clearly demonstrates that single containment (in a crib or playpen) can be a disaster for an infant unless his parents intervene and encourage their infant's interaction with the elements of play in his environment.

When properly channeled, play can be one of the most useful and constructive of learning experiences.

Importance of Play in Socialization

In "Social Deprivation in Monkeys," the now-classic article by Drs. Harry F. Harlow and Margaret K. Harlow published in Scientific American in 1962, the researchers described their experiments that revealed that baby rhesus monkeys caged with their mothers but permitted no play or social contact with other monkeys displayed gross abnormalities in their adult sexual and social
roles. Young monkeys permitted daily play with their peers, even though isolated from their mothers, showed nearly normal behavior as adults. A study conducted by Neil L. Cohen examined the effects of peers on the quality of play and also examined separately the effects of the presence and absence of the mother. The results indicated that toddlers directed considerably more attention toward a peer than toward the mother when both were present. (Child Development, 1980) Research to date indicates that learning comes more readily when young humans, are put in a responsive social setting with their peers. Peers can teach each other by their example and interactions. It is participation in family life and peer groups that provides the important one-to-one relationship that child psychologists tell us motivate early learning. Young children are eager to learn, and their play usually shows what they are learning day by day. Play with other children, more than any other activity, helps forward a child's social competence.

Some of the skills that are acquired as a child learns to relate to others are giving, receiving, and sharing; expressing feelings and ideas; and making choices. Social competency also includes techniques for expressing interest and friendship, for welcoming and including others in play, and for initiating and carrying on group activities. No child enjoys an adequate social life unless he has acquired the ability to play with other children. Every child wants to be part of a group of children his own age. He achieves stature only as he is accepted and respected by the group members, as he plays or works with them in the attainment of mutual goals, as he makes contributions to group projects, and as he learns that group life calls for initiative as well as conformity.
Consideration for others is a learned social skill. How well a child relates to other children and adults depends on his ability to get to know and accept other people. The growing child needs more than beneficial nourishment and good physical care, more than parental love and wholehearted family acceptance, as necessary as the foregoing are to his total well-being. However, if he is to attain his optimal development, a child must also have suitable playthings and playmates and full opportunity for play. A child learns to relate to life and the people and things in it when he is not isolated from the world and its goings on. His first attempts at wider socialization come when the family includes others in its activities. People of varying ages, temperaments, occupations, and relationships stimulate a child's feelings, his curiosity, and his thinking. Parents and teachers who are alert to the need for building social acceptance between varying age groups take steps to organize an environment that fosters such social interchange.

Throughout his social development, a child spends increasingly less time with his family and more in play with children his own age. This gradual transference, which extends over several years, is a major process in a child's social sophistication.

Play groups that form before primary school days begin to have some features that set them apart from later play groups. The choice of playmates is relatively restricted in kind and number because the preschool child must accept or reject whoever happens to be available in his immediate area. Once in school, a child may choose playmates from among many children. His increasing self-feliance allows him to play away from his immediate
The play group is a child's introduction to a group that appraises him as a child, from a child's point of view, and teaches him rules of conduct from the same viewpoint.

Play helps a child try out his social skill. Children have a strong need to get and give love. In their play, young children also find outlets for such wishes as a desire to dominate, destroy, display their prowess, make noise, or make a mess. The child who in real life finds it difficult to construct, to repair damage, to help, or to give of himself to others can find many opportunities to do so in make-believe play, as well as in reality through co-operative play with others. A study conducted by Dena Hartshorn, and John Brantley investigated dramatic play and its effectiveness on problem solving skills, and found that primary grade students who participated in a dramatic play program showed a higher success rate in problem solving than those who did not. [Hartshorn, et al., 1973, pp.243-245]. A few studies have suggested that role playing may be effective in producing change in the area of school motivation and the acquisition of knowledge. For example, a Russian study found that role playing not only allowed children to learn and practice new forms of behavior, but also helped create motivation when the tasks were uninteresting. Another study found better attention to, and retention of current news items when those items were portrayed by secondary school students. Sarbin found that role playing of roles found in everyday life (e.g., farmer, delivery boy) was more effective than usual instructional devices in helping retarded children respond to and learn about everyday social events. There is really nothing mysterious about the power of play. Play is basic to all normal, healthy children. It pro-
vides pleasure and learning and a minimum of risks and penalties for mistakes. Because it enables them to escape the restraints and frustrations of the real world, play provides children with greater opportunity to experiment and dare and more possibilities for the full exercise of the imagination.

Importance of Play in Language Development

A child's social growth is interlaced with his language skill. The four facets of language that every child needs to master are listening, speaking, reading, and writing. Listening and talking are the most used means of communication, but reading ability is basic to all academic learning. Listening and reading are input processes whereby the child enriches himself by adding to his knowledge and interests. Speaking and writing, are output aspects of language by means of which a child expresses himself and communicates his thinking to others.

During the second year of life children make several transitions in mental development as they proceed from primarily sensorimotor to more representational or symbolic modes of functioning [McCall, 1977]. During this time children begin to use single-word speech, followed by simple verbal combinations. Previously [McNeil, 1970] it was generally assumed that such developments in language were entirely independent of transitions in other areas, and resulted from the unfolding of specific language-learning abilities.

However, recent theoretical and empirical work suggests that the underlying capacity to symbolize is influential in language development as well as in a variety of related areas. One such domain which appears to share cognitive components and task factors
symbolic play and language measures. Logical thinking and verbalization are difficult for six-year-old and younger children.

Nevertheless, they do have ways of expressing their understandings with language is the development of symbolic play and language have been proposed on theoretical grounds by McCune-Nicolich [1981], Piaget [1962] and Werner and Kaplan [1963]. In symbolic play, the child uses gestures, sounds and objects to represent or symbolize other events and objects. Language and play also serve several joint functions in the second year of life. First, both involve the communicative function of sharing objects with others [Dunn and Wooding, 1977; Werner and Kaplan, 1963]. Second, children use both play and language to 'try out' various representational equivalences, and thereby learn the range of acceptable symbolic transformations. A number of studies have supported strong correlations between symbolic play and language during the early stages of language acquisition by both normal and abnormal children. Bates [1979] reported multivariate results demonstrating that symbolic play was the strongest predictors of gesture and language ability. Fein [1978] found that, between 9 and 13 months, symbolic play measures were closely associated with language production and comprehension.

Largo and Howard [1979] reported positive correlations between pretend play and receptive language, while Rosenblatt [1977] found that children who learned language early engaged in more representational play than others. In addition, studies of autistic children [Sigman and Ungerer, 1980] and retarded children [Jeffre and McConkey, 1976; Kahn, 1975] found positive correlations between symbolic play and language measures. Logical thinking and verbalization are difficult for six-year-old and younger children.

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and using their knowledge for purposes meaningful to themselves. Dramatic and symbolic play is often their language and their logic. Children consolidate all their learnings in their play.

**Importance of Play in Learning**

When psychologist Dr. Benjamin S. Bloom took a two-year sabbatical from the University of Chicago to begin an across-the-board look at the child development researches of the previous thirty years, he initiated a chain of events that will have tremendous impact on education in this country for the next hundred years. What he found in his examination of the statistics and curves of child growth, as set forth in his book *Stability and Change in Human Characteristics* was that the period of greatest learning are the years from birth to about age eight (precisely when play is a child's prevalent way of life!) He discovered that 80 percent of all learning at age seventeen is attained by eight years of age, that 50 percent is attained by age four. Academic interest, according to Dr. Bloom, comes before the eighth year.

One must ask what is the real meaning of education? Is it memory and recall or does it also encompass the laying down of such traits as creativity, the courage to try the unknown, wholesome self-image, self-confidence, and inner discipline and drive? If these characteristics are fundamental to fulfilling adult life, then play must be considered a power house of learning, Much learning occurs in the course of play. Childhood educators have always had intuitive thought about the learning that takes place during play. They have advocated extensive periods of play in the nursery school and kindergarten in the belief that such experiences help build interpersonal relation, permit children to adjust to their peers,
and prepare young children for the inner discipline and resources they will need during the demanding years of academic study and throughout life. However, even today too many educators are not ready to support the idea that play and the use of play materials with age-mates accelerate learning at a rate that few formal institutions of learning have ever attained, even with the most modern teaching technology and equipment.

Lawrence K. Frank, author and lecturer on human growth and development, in an article entitled "Play Is Valid," [Childhood Education, March 1968] had this to say about play and learning: "With his sensory capacities, the child learns not only to look but to see, not only to hear but to listen, not only to touch but to feel and grasp what he handles. He tastes whatever he can get into his mouth. He begins to smell what he encounters. He can and will if not handicapped, impaired or blocked, master these many experiences through continual play... the most intensive and fruitful learning activity in his whole life cycle." Young children are highly self-motivated to determine the how and why of things in their play. They are almost continuously involved in the process of concept formation and in clarifying and extending their understandings of the world.

Traditional education, with the teacher up front lecturing, conceives of the young child's mind as a tape recorder or camera that records what it hears or sees. If the child can feed back on a test what he has been told or read, he is said to have "learned" the subject matter. However, there are many educators who believe that this is not the way children really learn, that verbal recall is not the way to retain learning. Many contemporary psychologists
believe that the mind of a child does not make a photographic copy of reality, but uses active experiences and associative verbal labeling to come to grips with the raw data of the world. Each child builds his own concept and model of the world not merely by assimilating words but by means of innumerable direct experiences with the people and objects in his environment. The mental models obtained from these self-motivated discoveries constantly undergo revisions until the child attains mastery. Although memory is helpful, learning based on rote memorization will ever remain shallow and empty.

"I hear and I forget. I see and I remember. I do and I understand." Ancient Chinese proverb . . . There is strong evidence in the research in learning going on today that children need to experiment with models in order to abstract an idea. They need to manipulate a device to get a "diagram" to guide their actions. There is ample indication that even pictures require practice before they can be used as substitutes for the real thing. According to Jean Piaget, cognition at all developmental levels consists of actions performed by the person. At the early levels of development, actions or operations are overt and physical. As the child matures, the actions are internalized until covert actions verbal, symbolic operations, dominate his process of cognition.

The author is clamoring for bringing the self-discovery, educative powers of play into early academic learning. She asks that academic subjects become less teaching procedures and more playful, self-learning, manipulative endeavors. She would like to see the learning of major ideas arise from a foundation of experiences and interactions with the real world. When this is not feasible,
we need to structure into the early primary grades simulated play and laboratory experiences that present problems in raw forms to be explored and researched by each child.

The playing child advances each year to new stages of development, one associated with the nature of the play materials and the other to a relationship with his peers. In a sense, as Erik H. Erikson puts it, "The child moves out of himself to confront reality more effectively." Most nursery school educators do not appear to see the cognitive aspects of spontaneous play or to see that play and reasoning have several common elements. The author is convinced that spontaneous play can add to the building of intellectual skills.

The process of experimentation and flexibility is suggested by the playfulness characteristics identified by Lieberman [1965]. She found that children who demonstrated spontaneity, joy and a sense of humor were likely to perform better on divergent thinking tasks than those who did not display these playful characteristics. Similarly, Singer and Rummo [1973] noted that playful, curious, and humorous children were likely to be more creative. One would assume that these children would be less constrained by the situation and more likely to explore their environment in unusual ways than children who were not playful and curious. This was also suggested by the work of Hutt and Bhavnani [1976], who found that boys who explored the novel toy and used it in imaginative ways were among the most creative.

Even more important than the attitude of the preschool teacher is that of the elementary and high school teacher in not only tolerating but also encouraging playfulness in their classrooms.
Using play and games as part of the instructional process [De Vries & Edwards, 1974; McKinney & Golden, 1973; Nesbitt, 1970] was found to influence both types of learning and accompanying affect.

Second-graders using dramatic play as an approach to social studies increased their scores on ideational fluency and spontaneous flexibility tests [Hartshorn & Brantley, 1973]. Supervisors of student-teachers at the junior high school and high school levels [Berger, 1975; Klein, 1975] have found not only that learning increased on that level, but that the college-age student-teachers who practiced simulation games themselves enjoyed them so much that they were reluctant to return to the role of teacher. Similar classroom learning developed by De Bries and his colleagues [De Vries & Edwards, 1974] at the Johns Hopkins Center for Social Organization of Schools. Using expectancy theory as a mediating variable and choosing the groups on the basis of equal ability, they found not only increased achievement but also heightened positive affect in the learning process.

To paraphrase or to extend Ecclesiastes, there is a time to play and a time to work, a time to dream and a time to face reality, a time to produce new things and a time to be content with the old. In other words, social expectations will guide an individual's manifestation of play, imagination, and creativity. We can see this from comparative, developmental, and cross-cultural data. Bruner [1972] holds that the more productive the adult of a species, the earlier we can find mastery play in the immature organism.

In all learning, unstructured play experiences need to be followed by structured activities—still play! A well-planned and balanced program of both kinds of play experiences, followed
by the use of symbols, is far more effective than attempts to give symbols their meanings by verbal explanations alone. This is one of the prime reasons for the new emphasis on more game play, more laboratory work, and more active, personal involvement in beginning academic learning.
Introduction

Play, which is a pursuit self-chosen by the child (and adult), requires an environment that makes playing possible. At the same time, play challenges need to be integrated into the setting, with many alternative choices so that the child can find activities in which he can succeed more often than he will fail. The play area needs to be arranged to give the child the feeling of being apart from the ordinary world. What others do outside this milieu is of no concern to the child. Inside there are no adult set rules of conduct. The rules of play are child-ordered. Within the bounds of safety, everything is permissible.

Play materials do not have to be toys and objects; they can be an environment that allows the child to create his own imaginary situations. Such an environment can define space in a very personal way, which the child can occupy and use at will. The space and its appearance suggest to the child how he can form his own play world. It can be a tent, a tree house, or a gym frame, or it can be a playroom or a balcony. However, the environment needs to be one the child can subvert to his own ends and control. He needs to be able to turn it on or off by himself if it is an "electronic" world. Playthings need to be in proper scale to the child's size so they will not overwhelm or thwart him. They need to be easy to get at and easy to put back. Like the shop of a competent technician, the containers of play material need to be arranged and stored so that they communicate to the child their availability and their proper replacement locations.

A play space can take on many forms. It can be a permanent
area, as in a playground or nursery school, or it can be created out of a figment of a child’s imagination. It can be public space, like a cave or social club in which special activities and child imposed rules of play prevail, or it can be built by the child, as in a play corral formed with large blocks or loose bricks enclosed by a wood screen. For the infant it can be a crib, playpen, or large play dome. The shape, size, and contour of a play area can often suggest the nature of the play.

Environmental psychologists and early childhood educators talk about playful interactions with the environment as a strong element in the learning process. An environment is more than physical space or enclosures. It can also be made up of people: mother, father, relatives, and peers, with whom the child interacts and from whom he picks up cues about behavior and one's culture. The environment can be the objects that every child encounters early in life, whose operations, textures, purposes, and names must be mastered ultimately and integrated into his intellectual store of experience and knowledge. The physical world of each age level needs to be as intensively researched as developmental stages. At others, exposure to objects takes precedence. As parents, we need to examine all encounters carefully in order to prescribe the best arrangement for growth at each age level and stage of matura-
tion. Each level of a child's development presents a new set of competencies and environmental conditions, and each one is sufficiently different from the other to require its own special "curriculum" and "environment" of play and learning. How "critical" each stage is or how closely we define chronological age boundaries does not seem so important as recognizing that each
stage necessitates a difference in activity and learning opportunity. Knowing how to arrange or rearrange the conditions for permitting maximum potential growth is an indisputable asset to a parent.

**Objectives**

The primary object of this project is to provide a list of suggestions for parents and educators who want to improve their children's play. The author strongly believes in the power of play from infancy on into the adult years, and although its roots are in childhood its positive effects continue through one's life. Therefore with proper channeling beginning at birth play becomes more an attitude than an activity. It is approaching life's experiences looking for the lighter side. Thus, the recreative aspect of play is to have a playful spirit in the process of daily living, in the encounters with people and problems, meeting them with a perspective through which they can be happily resolved.

The stated objective can only be achieved if parents and educators remain open-minded, enthusiastic, and willing to risk caring about the physical, mental, and emotional well-being of their children.

The stages of development to be covered are (1) Infancy, (2) Toddler, (3) Ages 4-6, (4) Ages 6-9, (5) Ages 8-12, (6) Beginning Teens, (7) Adulthood.
LIMITATIONS

Though relatively few in number, a statement of the project's limitations is absolutely essential. Firstly, this paper was not intended for use as a curriculum plan. However, this is not to say that by participating and observing, teachers and researchers can't learn from children's play and how best to develop programs and curricula to meet their developmental and existential needs.

There are many complex determinants and processes in curricular effects on the play of young children. The greatest obstacle to forming generalizations at this time is the limited empirical data base. However, such research would lead to a better understanding of the direction and magnitude of curricular effects on the play of young children. As a result, the gap between what is known about curricular effects on play behavior would narrow, thereby improving the state of program evaluation.
DESIGN OF THE PROJECT

To substantiate the previously stated objective that the power of play is all pervasive, the author felt it important to list some of the specific things that recent studies on play tell the practicing parent and educator about improving the quality of play. The use of such media enables its readers a unique opportunity to study the ages and stages in the development of a child which can provide some useful perspectives on the role in a child's maturation and on the various pertinent requirements and play opportunities that need to be made available.

The specific items are (1) in list form; (2) categorized into seven stages of development; (3) in developmental order; (4) brief summaries only and not exhaustive in content.
In the first twelve months a baby changes faster than at any other period of life. Don't expect an infant to conform to any set schedule of development. Every infant develops at his own rate. The environment, physical and interpersonal, affects desires and needs.

Suggestions

1. Organize an infant's nursery carefully; this is the first stimuli he interacts with.

2. Provide a loving and caring environment; this encourages enthusiasm and drive and stimulates growing and learning.

3. Position the infant's crib, the color of the walls, rug and crib sheets so they are all part of the baby's "seeing" environment.

4. Obtain clear plastic crib boards that can hold live fish in an attached tank or a small terrarium that enables the baby to watch animal or people activity.

5. Suspend a colorful mobile from ceiling within focus of infant's range of vision, about eight inches above him.

6. Elements in the environment must keep pace with the infant's growing by offering fresh playthings and play sequences that reinforce his increasing physical and other abilities.

7. Toys are the concrete tools of play and can either encourage or deter children's play. Open-ended toys, ones that can be used in many ways, help children play while toys with only one use can limit or even inhibit play.

8. Play with your infant. By playing with children, adults are better able to help select appropriate props or play materials.
TODDLERS

Toddlerhood is marked by a qualitative change, shown by walking's being the normal mode of travel, by the toddler's greater stability, and by his no longer needing his arms for balance, so that he can now carry things with him. On the side of being able to understand language, the child is now open to endless verbal communication. Here once again the author would like to stress the great variety of individual styles tempos, and temperaments that characterize the toddler's movements, in addition to variations of mood or transitory state.

Suggestions

1. Reward a child's verbal "labeling" with agreeable experiences, this way language ability is accelerated.

2. Provisions need to be made for large, weighted, rolling barrel type toys with transparent plastic rollers, bells, bouncing balls, etc.

3. Play materials should be equipped to entail lifting, handling, comparing, grouping, and ordering.

4. Free physical activity requires lots of space. Provide sufficient space and appropriate equipment to allow young children to learn to use their bodies smoothly in space.

5. Dress-up clothes, blocks of assorted sizes and shapes, sand and water can be used for many purposes.

6. When children play with objects like wood scraps, large cardboard boxes, or pebbles, they need to explain and describe their function to convey meaning.

7. A wooden tri-level fort or big mountains of dirt connected by a bridge would be excellent and help a child create new games and share ideas.

8. Be a model for playfulness. Since children learn from imitating adults, help them play by asking questions or making comments.

9. Whether indoor or out, children need the freedom to make their own play environment, to create their own landscape, and to find their place in it.
These children are in greater control of their bodies and their tongues, and these achievements make a great deal of difference in the kinds of activities and environments parents have to provide. Four to six year olds can initiate their own physical and other play activities. Because they now get around more, the things they see and hear during their interactions in home, school, and community arouse in them the desire to dramatize all their experiences.

Suggestions

1. Allow children to fantasize in their play, this is one way in which they experiment with feelings, ideas, and situations of all kinds.

2. Snap Blocks, Tinker Toys, Lego, Flexagons, and countless other put together toys should be available for children to practice "engineering" techniques.

3. Expressive activities such as painting, clay work, string sculpture, woodworking, are excellent ways for allowing children to satisfy their urge to create and accomplish.

4. As a parent it is better to focus on the process in play rather than production of artifacts.

5. Provide a balance supply of portable wood or metal equipment, which poses physical challenges and fun and wide margin of safe manageability by the children. When children are in control of the equipment, they are in control of themselves as well.

6. Encourage children to pretend. This will strengthen their inclination to use play for fun and learning.

7. Expand the scope of children's play. Help children elaborate on their play by suggesting new ideas or by adding new props to their play areas. Suggest reenacting group experiences (e.g., "going shopping" and "making cookies").

8. An important aspect of play is its potential healing power. Allow children to replay a traumatic experience, i.e., an emergency operation or an accident, this allows a child to overcome fear and anxiety.
AGES 6-9

Six to nine year olds are not ready to relinquish the play or physical manipulative approach to learning. Their verbal ability is not sufficiently advanced for them to relay entirely on words for tackling abstract ideas. Words must first have a physical dimension before the child can correctly use them in the world of academe. Therefore, whether in the classroom or at home, words and ideas have to be played out physically for them to take on meaningful dimensions. Children of this age group need countless handling and playing experiences in order to lay a foundation for building concepts.

Suggestions

1. Allow children opportunities to take leadership, and share responsibilities in their play.

2. Children this age are very interested in Transportation and community play. Trips to construction sites, docks, food markets, fire houses, etc. allow children to gain further information which they in return "Play-Out" to gain complete mastery.

3. Allow children to enact all kinds of dramatic play. Dressing up in the costumes of a cowboy, baseball or football player, a bride, a ballerina, a policeman, a fireman, and so on gives six-to-nine-year olds an opportunity to experience new roles "in the flesh."

4. There is a need to mix play and academic learning during this period to accelerate educational and developmental goals for children.

5. Plan for children's play. Planning for children's play can enhance it by giving children a place of their own in which to play, by providing a place for organizing materials, and by providing a balance of open-ended and close-ended toys.

6. Encourage children to talk about their play. Let them know you're interested in what they do.

7. Watch children play. In this way you can learn about their likes and dislikes, favorite themes and interests.
AGES 8-12

These "in-betweeners" are not yet ready to give up the play of an earlier age, nor are they yet able to attain all the skills needed to master the world of the adult. Not being ready, they resort to an intermediate stage of dramaization with puppets, dress-up, make-up, ballet dancing, to rehearse adult roles. They are also addicted to games of skill and chance. Children of this age make involved layouts for electric trains and build and collect models of cars, planes and boats. They collect stamps, trading cards, bottle caps, coins, international dolls, match covers, rocks, shells, and so on.

Suggestions

1. Have available materials so children can create their own puppet stages; and shelves or window boxes for displaying their models and collections.

2. Provide children with large bulletin boards to hold their clippings, picture postal cards, and posters.

3. Make available large mirrors for dress-up and disguise play.

4. Provide a workbench with good tools and supplies of lumber, balsawood, and nails for woodworking projects, as well as "organizers" for their sporting goods and musical instruments.

5. Arrange and furnish the preteens' play and activity room so as to encourage the accomplishment in the many varied avocational interests of these children.

6. Make it convenient for a child to read, write, do laboratory work, and research his ideas by providing a good sized desk (thirty by sixty inches), open shelves to hold reading and reference books.

7. Pencils, crayons, small tools, and other materials should always be readily available.

8. Allow children to join groups and clubs for personal acceptance and desired activities.

9. During this period it is important to support children's play. Praise the way they use materials and comment on the
roles they have assumed.
BEGINNING TEENS

For the beginning teens, play takes on increasingly adult forms. They might play in the school band. Some even earn money as performers in roving rock-and-roll groups. Many present puppet or magic shows at children's parties. There now appears to be some kind of "pay-off" for the "semi-adult," who "plays to win." Young teen-agers are not happy with toy versions of anything; both sexes now want "adult" things.

Suggestions

1. Allow children opportunities for seeking community recognition for their sports activities and hobbies.

2. Encourage children to talk about their hobbies and activities. Let them know you are interested in what they do.

3. Children in this age group become stressed because they work much more than they play. To combat stress allow children opportunities to play for play's sake.

4. Seek teachers who balance time spent in social adaptation (learning "the basics") with time for self expression (play, art, music, etc.).

5. Encourage children to start a collection of stamps, coins, stones, jokes, recordings, maps, or any other hobby or interest. Strive to make learning fun and enjoyable, they will still put more energy into a play project than a work project.

6. Allow children opportunities for social spontaneity and development. During this period it is important to allow children to choose activities voluntarily, this is given far more concentration and energy than the activities they are made to do.
ADULTHOOD

Development does not stop when one reaches adulthood. One can even recognize such developmental periods as young maturity, middle maturity, old age, and senescence. It is because of its all-pervasive element, which playfulness represents in our optimal functioning, that it has to be nurtured from infancy to old age.

Suggestions

1. Allow for activities during leisure which will enhance a playful element to enter. Try to avoid grim competitiveness.

2. Provide less structured vacation time, allow for having more time to do as you please.

3. Seek out hobbies and interests in which one's imagination and creativity can be exercised.

4. Acquire an attitude of doing for enjoyment, not by an end product of just getting it done.

5. Building furniture, refinishing antique objects, and making sculpture of found objects are other groups activities in which playfulness could aid in imaginative productivity.

6. Remember that "winning" is not an integral part of leisure enjoyment.

7. Enjoy moments of spontaneous play, play with children, and play with animals. These all lead to attitudes of enjoyment and pleasure.
CONCLUSION

Today, both developmental time and historical time make us view play and leisure in a different relationship. Child's play is too often seen as his work, and the adult is hard at learning how to play in his leisure. If what has been argued and elaborated about play and playfulness in the preceding sections can be considered to be sound and convincing, then it should help us see leisure as an ongoing process at all stages of development. In short, the author would like to suggest that the encouragement of playfulness, first in the play of the child and later as part of an individual's personality dynamics as he progresses from classroom learning to career choice and occupational setting, will facilitate its application to leisure. This is especially important today when, as adults, so many more individuals have so much more leisure.
BIBLIOGRAPHY


Barton, P.H. "Play as a Tool of Nursing." Nursing Outlook, 10 (1962): 162-164.


Frank, L.K. "Play is Valid." Childhood Education, 47 (March, 1968): 18-23


Johnson, G.E. *Education by Plays and Games.* Boston: Ginn, 1907.


Pestalozzi, J.H. How Gertrude Teaches Her Children. New York: Barteen, 18


APPENDIX A

SUGGESTED REFERENCES

Books

Hartley, R.E. *The Complete Book of Children's Play.*

Hills, K. *The Toy: Its Value, Construction and Use.*
Chester Springs, Pa: Dufour Editions, 1961

Matterson, Elizabeth M. *Play and Playthings for the Pre-


Shoemaker, R. *All in Play: Adventures in Learning.*
New York: Play Schools Association, 1958