Play : Concepts and Research

Young-joong Kim
Soon-hyeong Lee

I. Introduction

Play is an essential part of early childhood. Researchers have been investigating the relationship of play to cognitive, language, social, and gross motor development. Play and learning activities are interrelated and certain types of play seem to facilitate certain types of learning.Through environmental adjustments it has been found that the quality and quantity of play can be manipulated.

Play continues to be included in all early childhood programs. Butler says that there are vast differences in what is meant by play and what is believed to be its relative value.

There are teachers who feel that free play has little merit and should be replaced with educational play. In the direct-instruction type of program, play usually involves use of equipment to teach specific concepts and teacher-directed games to stimulate language and thought. Play is directed by the nature of the equipment. Spontaneous play is usually limited to short periods of outdoor activity. which are not considered to make any significant contribution to learning. In what are termed the more open center, self-initiated play is the major vehicle for learning.

Almy says that psychoanalytic theory has long regarded spontaneous play as a reflection not only of the child's emotional needs but also of developing intellectual competence. There are teachers, however, who are so preoccupied with the emotional aspects of play that they neglect its intellectual connotations. Utilizing the cognitive values of spontaneous play does not necessarily mean pushing or pressuring the child but rather nurturing basic abilities as they develop. The teacher needs to diagnose cognitive functioning as revealed in play.

By observing and evaluating the child's curiosity and interest in investigation, problem solving and mastery, the teacher can give guidance in play and in other curricular areas.

This paper will present the synopses of several articles about play. Through these synopses, the writer will present much of the relevant concepts and research about play.

II. Review of Research

Gail Bjorklund, *Planning for Play,* Columbus. Ohio : Charles E. Merrill Publishing Co., 1978.

The author cited three theories of play :

1. Freud--play is an escape from reality into the world of fantasy;

2. Erikson--play is a means of facing reality. Spontaneous play enables the child to adjust play to personal identity needs;

3. Piaget--play contributes toward intellectual development. According to Piaget, two processes are fundamental to development : assimilation and accommodation. Assimilation represents an effort to change elements from the outside world into familiar structures, while accommodation occurs when a child tries to adapt to the outside world when existing structures don't work. Piaget believed that more playlike behavior occurred when children were able to assimilate.

Piaget's observations of play are categorized into three stages according to the types of assimilative acts children usually performed at different ages : practice play, symbolic play, and games with rules.

As a conclusinon, when children play the consequences of their actions are minimized. They feel freer and more relaxed to explore their environment. Children who have encountered a rich variety of experiences through play will be eqipped with a fuller, more complex understanding of their world and how to function in it.

Brian Sutton-Smith, "Children at Play," *Natural History,* December, 1971, pp. 168—73.

Some have said that play is children's work and that much of the time a child is using the activety of intelligence when he is intently "exploring" his world and not actually playing. What, then, is play?

Play is an activity in which the person :

1. acts voluntarily,

2. makes his own choices,

3. behaves in the novel way he wishes,

4. has more freedom and can sustain his chosen activity without interference for considerable lengths of time.

There are four types of play : imitative, exploratory, testing, and model-building.

Imitative. In the first year of life, the child imitates the parent imitating the child. A young baby can only do well that which he has already done.

By the second year, the child can imitate others by himself. Most of the imitative play at this age will be partial acts borrowed from sleeping, eating, and washing.

At age three, children tend to copy people as a whole. In the first three years of life, children tend to imitate the most important and powerful people in their lives.

From ages four to six, social play develops. Social play usually involves one child taking a dominant

role over the others and forcing the less powerful children into inferior roles, refusing to reverse the roles. In nursery schools, however, role reversals are more prevalent.

Exploratory. In the first year, exploratory play involves parts of the body. In the second year, a child explores testing, scribbling, emptying, filling, inserting, pulling, stacking, rolling, putting in and out, and climbing into and out of.

At age three, exploratory play becomes more complex.The child arranges, heaps, combines, trans-fers, sorts, and soreads.The child is aware that he is playing and that his objects are toys. Play with blocks, clay, and sand become frequent. Verbal play also comes to the fore.

Testing. At age two, a child does a great amount of large motor testing : crawling under and into things, hammering, climbing, throwing, running, balancing, etc. This play is a form of self-validation.

As a child grows older, the testing becomes more advanced and complex. Games come to the forefront. He measures himself against the competence of others. These types of contests can be arranged in a developmental sequence that children go through between the ages of 5 and 12. This development can best be illustrated through four levels approach and avoidance games :

1. Level I (hide-and-seek, tag)--played between 5 and 6; involves one central person who has most of the power; roles are reversed; space is divided into safe vs. dangerous.

2. Level II (release)--popular at ages 7 and 8; a central person captures the others; space is divided into captive base hiding place; time is cumulative.

3. Level III (red rover)--popular with 9-and 10-year olds; defined boundaries; two safe bases; crescendo effect in which all try to capture the last player(the fastest, most cunning player).

4. Level IV (prisoners' base)--played at 11 or 12; two teams pursue others; boundaries undefined; home bases and prisoners bases.

In the four levels of play, the child first tests his powers against a magical "It", and later against people of a similar skill. Each level has a new form of spatial arrangement. In these games, children test their ability to hide, escape, capture, and rescue without being overwhelmed by fear.

Some play is model-building. This play becomes explicit at age four. It involves the organization of houses, tea parties, blocks, cities, and trucks. Some people, such as Erikson, believe children today have so many toys and already-built models that children are spending less and less time in model-building play.

Dorothy Gross, "Play and Thinking," Play : Children's Business, Washington, D. C. : ACEI, 1974, pp.11 — 16.

The author exemines four developmental stages of play, following Piaget's general structure :

1. Infants(0 — 18 months)--play does not appear very different from normal daily activity. The objects of play are : one's own body, other's bodies, and concrete objects.

2. Toddlerhood(18 months to 3 years)--play at this stage combines movement activities with intense attempts to order the world. An important thrust of toddler life is to pattern his experiences by representing them through imitation and language.

3. Preschool (3 to 6)--growing involvement with other children and the sorting out of fantasy from reality are the characteristic concerns of these years.

4. Middle years (7 to 12)--play emphasizes realism during these years : getting things right, playing by the rules. Emphasis here is the creation of a community, of a team.

Anne Widerstrom, "How Important is Play for Handicapped Children?" *Childhood Education,* Sept.-Oct. 1983, pp. 39—48.

Play has been defined as having the following characteristics :

1. Sylva(1977)--active, persistent manipulative experimentation with objects, environment, and other organisms ; self-initiated; lacks immediate survival purpose.

2. Bower(1974)--enjoyable, serious, voluntary.

3. Tizard and Harvey(1977)--orderly and not goal-oriented

4. Sylva(1977)--lack of a goal distinguishes it from problem-solving.

Play has been found to be biologically useful in animals. Suomi and Harlow(1975), in their research on rhesus monkeys, concluded that play served two purposes : it gave young monkeys a chance to practice adult behaviors and it gave them safe outlet for their aggressions.

Dansky discovered that children trained in symbolic play demonstrated improvement in cognitive performances.

Parten(1932) identified six categories of play children normally engage in :

1. unoccupied behavior--watching something for a moment, play limited to a child's own body;

2. onlooker--watching other's play;

3. solitary independent play--plays alone and independently with toys different from other children nearby;

4. parallel play--play is beside rather than with other children; uses toys similar to those of children nearby;

5. associative play--playing with others in a common activity;

6. cooperative play--playing in a group organized for some purpose ; labor is divided ; children assume different roles ; some children become leaders.

The author found few play differences between handicapped and non-handicapped children. The degree of institutionalization, socioeconomic condition, and the degree of emotional adjustment are more of a factor in a child's play behavior than his handicapping condition.

Carol Flake-Hobson, et al., "Learning to Read Through Play," *Dimensions*, July 1982, pp. 103-105.

The authors present the prerequisite skills that are necessary for the skill of reading, and give lists of play activities which can enhance these skills :

1. Oral language--using puppets, singing, talking with adults, using phones and other props in dramatic play.

2. Visual discrimination--matching objects and pictures in lotto qames, sorting objects to paricular visual clues, playing certain card games such as "go fish".

3. Auditory discrimination--identifying household sounds, children's voices, and animal sounds on a tape recorder, using stories and fingerplays with rhymes.

4. Listening--listening to stories, playing "Simon Says," reciting nursery rhymes.

5. Memory Span--sequencing pictures, using flannel board characters to tell a story, acting out favorite stories from memory.

6. Movement from left to right--playing "Hokey Pokey," arranging objects from left to right.

Mary Nicolaysen, "Dominion in Children's Play : Its Meaning and Management," *Young Children*, XXII, 1, October 1966, pp. 20—28.

The author states that behavior which exists in many children's play is called dominion play. The author discusses dominion play in terms of children's efforts to possess space itself and the bearing this behavior has on their emotional and social growth.

The author cites six reasons for dominion play :

1. It is satisfying to possess something of one's own.

2. Humans as well as other animals take possession of territory, use, and defend it.

3. In play a child can safely express his reactions to the many directions, commands, and prohibitions that he commonly receives from others.

4. A child's attempts to isolate and enclose himself in a chosen place may express his needs for security and protection, normal human needs especially strong in children.

5. Occasional preference for solitary play may have quite desirable indications (desire for autonomy, learning to think independently, etc.).

6. The child's concept of space is related to his developing concept of self.

The author proceeds to discuss how important it is to understand the importance of the role dominion play can provide in the emotional well-being of a child. This understanding can promote an acceptance of this kind of play on the part of the adult, and can aid in resolving conflicts when dominion play becomes contagious or when others wish to enter the child's self-defined space.

A. D. Pellegrini, "Speech Play and Language Developmint in Young Children," *Journal of Research and Development in Ecucation*, XIV, 3, 1981, pp. 73—80.

The author states that speech play, like other forms of play, is a mode whereby children explore and manipulate the many aspects of their language system.Metalinguistic awareness,of awareness of the rules of the linguistic system, is one end product of speech play.

Children first play with language phonology (rhyming, nonsense words, alliteration). Later, children play with the syntax and semantics of language(word replacement games).

As children mature, they less easily and less frequently play with language.

Wolfgang and Pellegrini found that children who engages in dramatic play are better readers and writers than children who engaged in functional and constructive play.

Penelope Griffing, "Encouraging Dramatic Play in Early Childhood," *Young Children*, January 1983, pp. 13—22.

The author proposes several ideas in which teachers can encourage dramatic play in kindergarten:

1. The number of activities available during free play should be reduced so there will be less distraction.

2. Attention and planning should be given to housekeeping and block areas because dramatic play is so apt to occur in these areas.

3. Collections of props for enacting dramatic play themes can be valuable resources.

4. Teacher involvement in dramatic play intervention should be phased out as soon as the children are ready.

A. D. Pellegrini, "The Relationship between Kindergarteners' Play and Achievement in Prereading, Language, and Writing," pp. 530—35.

This study tested the relationship between children's ability to play, as measured on Smilansky's continuum, and their achievement as measured by the Metropolitan Readiness Test prereading component and writing fluency.That is,this study attempted to measure the extent to which kindergarteners cognitive play predicted their performance on standardized achievement tests. The children moved through a continuum of functional play, then dramatic play, and finally, games with rules play. The final mode was the best predictor of achievement.

The results of this study suggest that administrators and teachers of young children should create an enviromnent that allows children to engage in many forms of free play.

James F. Christie, "The Cognitive Significance of Children's Play : A Review of Selected Research," *Journal of Education*, PP. 23—33.

This article reviewed research studies that have attempted to establish the cognitive significance of children's play. Three major types of research were reviewed : correlational studies, experimental studies, and play-training studies.

1. Correlational studies. Lieberman found that children who were rated as more playful were also better divergent thinkers. Hutt found that the responses by children to a certain toy fell into three groups : non-explorers, semi-explorers, and inventive explorers. Four years later, he found that the inventive explorers scored higher on a divergent thinking test than did the other two groups.

However, correlational studies do not provide an explanation of cause and effect.

2. Experimental studies. These studies tried to assess the effects of play on problem-solving ability and divergent thinking tests.

Sylva et al. found that children who simply "played" with two sticks and a clamp did just as well or better at clamping the two sticks together to create a longer stick in which to reach a prize than did three other groups who had received different types of training at clamping the sticks together. This same group was also more goal-directed and persistent than the other groups.

Dansky and Silverman found that children who were allowed to play with a group of common objects produced more nonstandard uses both with objects which were and were not used in the treatment sessions than did children who were asked to imitate an experimenter's actions with the objects.

These findings indicate that play can lead to short-term gains in problem solving and divergent thinking ability, and not necessarily to long-term gains.

3. Play training studies. Studies indicate that symbolic play is under-developed in low socioeconomic children. Play training was used primarily as an intervention technique with these children.

The studies in this area found that play training facilitated both symbolic play as well as cognitive growth.

There are three general conclusions from the research in this field :

a. Playfulness is a trait which is related to divergent, creative thinking.

b. Allowing children to play with objects can lead to increased performance on problem solving and divergent thinking tasks.

c. Play training leads to short-term gains in cognitive performance.

III. Conclusions and Recommendations

Based on the review of current play research in early childhood, the importance and the concepts of play in early childhood have been stressed. The relationship of play to cogitive, language, social, and motor development has been stated. Characteristics of the child's play and the developmental sequences of play activities have been described. Further research needs to be done to examine the relationship, if any, that exists between constructive play and performance in the area of mathmatics. Many authors have pointed out that the amount of time spent by children in constructive play is diminishing. If there is a relationship between constructive play and mathematics, and I feel that there is, then we must become concerned about the future of our children's understanding and performance in mathematics.

〈국문초록〉

놀이의 개념과 특성에 관한 연구

놀이는 어린이 활동의 가장 근본적인 부분으로서 생활의 대부분을 차지한다. 어린이들은 놀이를 통해서 신체적, 지적, 정서적, 사회적으로 성숙하며 발달한다.

Erickson은 놀이를 통해서 어린이들이 실제의 생활을 체험할 수 있다고 주장하면서 자발적인 놀이의 중요성을 강조하고 있다.

이와같은 어린이의 놀이는 어른들의 놀이와 현저히 다른 특징을 가지고 있다. 어른들에게는 놀이와 일이 분명히 구분되어 지는 반면 어린이에게 있어서는 놀이와 작업이 구분되기 어렵다. 어린이들은 생활을 위해서 의무적으로 혹은 강제적으로 작업을 하는 것이 아니고 순전히 자발적으로 하고 싶어서 한다. 즉 어린이들의 놀이는 어떤 목적을 위한 수단이 아니고 그 자체가 목적이 된다.

어린이들에게 있어서 놀이는 곧 학습이다. 어린이들은 놀이를 통해서 사물의 성질이나 역할을 이해하고 다루는 법을 배우며 실험하기도 하고 놀이의 실패와 성공의 경험을 통하여 학습이 이루어진다. 또 놀이를 통해서 협동심을 배우며 인간을 이해할 수 있는 사회성이 발달되기도 한다. 따라서 놀이를 통하여 다양하고 풍부한 경험을 한 어린이들은 그들의 세계를 더 잘 이해할 수 있으며 그 속에서 보다 잘 적응할 수 있다.

본 연구는 어린이들의 신체적, 지적, 정서적, 사회적 발달에 지대한 영향을 주는 놀이에 대한 연구논문들을 고찰해 봄으로써 어린이의 성장에 따른 놀이의 단계적 특성과 놀이의 형태, 그리고 놀이의 개념들을 정리해 보고 놀이학습에 대한 시사점을 제시하는데 그 목적을 두고 있다.