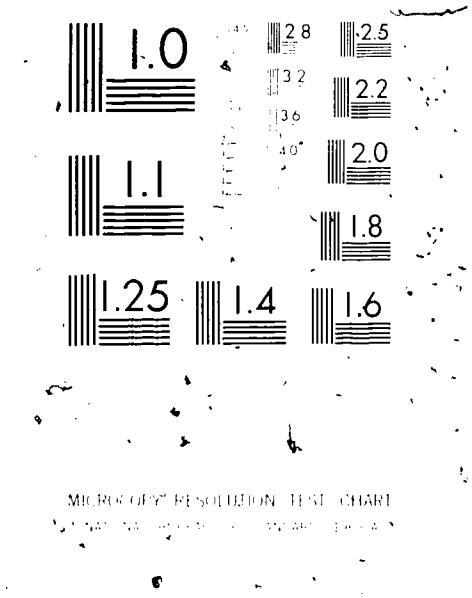
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ABSTRACT

The physical development of the child from 4 to 6 years old is discussed. Activities and games that will increase the child's dexterity, balance, and ability to play with others are described and illustrated. (JD)

CHILDREN LEARN PHYSICAL SKILLS

Vol. 2
4 to 6 years

Liselott Diem

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FOREWORD

The main emphasis in the series *Kinder Lernen Sport* is the provision of a climate and surroundings that will encourage children to develop their optimal potential. In all instances, the basic components of strength, balance and coordination are stressed as requisite to the development of basic skills. Furthermore, mastery of basic skills is considered to be fundamental to self-confidence and safety for creative and independent movement exploration.

The necessity to develop an atmosphere of confidence between the child and its adult "partner" is stressed for movement activities in the period of infancy. In early childhood, group activities are considered to be a primary vehicle for independent creative movement exploration as children learn from and stimulate each other. Moreover, the cooperative aspects of group activities are vital to the socialization process whereas the competitive aspects promote a realistic development of the individual's personal assessment.

Although the series has been developed in terms of age groupings, the various tasks within these groupings are not necessarily age related but are also conditioned by the degree of exposure and experience that the individual has had with the various tasks and pieces of apparatus. Therefore, the selection of tasks from the series for movement development programs should be based upon an assessment of the current movement capabilities of the children in each program. In some instances, the children may be at comparable age levels to those who have undertaken the series program whereas, in others, the selection of tasks may be from a lower or higher age level than indicated in the series program. The judicious selection of appropriate level activities for the optimal development of the individual is entirely in keeping with one of Professor Diem's primary objectives: "to create a freedom of movement environment."

Helen M. Eckert
Professor of Physical Education
University of California, Berkeley

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PREFACE

The series *Kinder Lernen Sport* (*Children Learn Physical Skills*) is composed of five complete learning programs for the swimming of infants and toddlers and for sport learning from infancy up to 10 years of age. On the basis of newer psychological learning and didactical sport findings as well as years of practical experience with these age groups, many suggestions for movement plays and the learning of movement techniques are offered to parents, kindergarten teachers and elementary school teachers. The "exercises" of a customary style are not presented here. The chapters of the learning programs are much more consciously planned to provide open learning situations for the child in which he can develop his movement fantasy and gain movement security.

In this fourth volume of the series, a program for the sport learning of three- to six-year-olds is presented. The examples described have been tried out in practice in a kindergarten with limited room space and on a playground with new types of equipment, where hard, sand and green areas as well as slopes and jumping pits were used. The children had a voice in the exercises and the cooperative behavior — partly discovered by themselves. Naturally, there are more than the examples and ideas described here. This learning program fulfills its purpose when it stimulates and enables the independent and motivational use of such possibilities. (*Editor's Note:* Volume 4 in the original German series has been made Volume 2 in the English translation and Volume 3 is Volume 1.)

Liselott Diem

Cologne, May 1973

INTRODUCTION

At the age of three, the child broadens his range of performance more and more independently and in doing so his ability to master self-implied exercises. He is curious and ready to learn. He looks for play groups with his peers and at the same time begins to release himself from his dependence on the adults. He learns movement techniques often without a direct introduction; he does this by observing and trying, when given an appropriate play area and ample playing time. Furthermore, the child needs objective challenges through interesting exercises and situations, which give him experience and insight and are fun for him. Also in sports, learning is always both: a cognitive process — the experience must be understood; and an affective process — without pleasure and positive experiences, no child increases action. Particularly in sports (along with insight and motivation to learn) belongs learning in a group, a prerequisite for the child in order to gain both skills and security. One depends on one another, learns from and with the others, and has mutual problems to solve.

From the abundance of possibilities, individual ones were selected for this program, and because of the following reasons:

Balancing, *reacting*, and *skillfulness* make up the foundation of every sport learning (Sections 1 and 2). They are composed of the testing areas, self-assuredness and sense of movement which are also spontaneously looked for by the child at this age in the movement games. He gains grip and support assuredness and refines the

feeling for timing and sensitivity. *Climbing*, *jumping*, *hanging* and *rocking* (Section 4) serve in the mastering of the body weight. These testing areas are looked for continuously and concentratively by the individual child. Through repeated and situationally changed practicing, he learns to measure exactly his strength, speed and mobility.

The sport learning is accomplished in the following didactical steps: (1) creation of an appropriate stimulating situation; (2) problem presentation with individual attempts to solve them: "testing" behavior; (3) repeating, comparing, evaluating the found solution: "sensible" behavior; (4) independent varying of the fundamental form: creative phase; (5) intensifying the exercises and competitiveness with the individual skills and those of others: recognition of the real standards demanded. There are two didactical principles integrated into this learning process which are especially emphasized.

Social, cooperative behavior (Section 3): It occurs in every presented task and is not tied to certain situations. *Imaginative creative behavior* (Section 5): As soon as a basic fundamental is mastered, the child "plays" in his way with it, changes it, reconstructs it. He must often be allowed to play on and with apparatus in order to be able to gain insight in the movement procedures and new ideas and he needs stimulative encouragement and also support from other children in the group. Each child, even the shy or retarded one, learns in his own individual way, even though it may be limited, to act imaginatively.

The male pronoun is used in this book and for convenience was not changed in the translation; the pronoun is intended to apply equally to both sexes.

SECTION 1: BALANCING EXERCISES

1. Balancing

The child gains good posture and sureness of movement only through the development of his sense of balance. Balancing is based on coordination, i.e., on an adjusted tension change of the muscles, which in turn is directed through a highly complicated control system. The respective position or the position change is transmitted over nerve cells in the muscles, ligaments and joints of the equilibrium organs in the ear, which take care of an equalization through compensation movements. The sense of balance becomes more refined only through much practice, above all, but also through the sense of pressure, support and touch. Practicing barefooted is essential. Already the first independent step of the child or later the independent climbing of steps shows mastered balancing. Children look spontaneously for opportunities to practice their balancing. Therefore, the program begins with balancing tests, with which the children are acquainted: scooter and bicycle riding, roller skating.

2. Steering a Vehicle

Every object that moves develops a special attraction for the child: the ball flying through the air as well as the rolling tire. No wonder that already at a fairly early age the child has the desire to steer a vehicle with which he can move himself. One of the first types of sport can be riding a scooter. In this way the child learns orienting and proper guiding of a vehicle. At three years he can ride a scooter safely. At four years he changes to a bicycle — at first mostly on a bicycle with training wheels. The changing to a bicycle does not seem difficult to children who rode a scooter before since their feeling for balancing (sense of balance) is already refined.

A hard surface or a wide corridor (hallway) is suitable for practicing this.

First of all the child should learn to master the following exercises:

- stopping at a safe place, getting on and off
- riding around obstacles (slalom riding)
- starting simultaneously with other children and reaching the finish at the same time
- starting from opposite directions and riding past each other
- riding slowly.

By riding slowly the child shows that he is able to master his speed. He has become able to move skillfully and at the same time is aware of traffic problems.

3. Riding Freehand

By now the child has learned correct riding, direction orientation, and change of speed. He adapts himself more and more assuredly to other vehicles and begins to discover independently new and difficult activities.

Most children try at first by themselves to ride freehand. Riding freehand is the best balance training. This can only be practiced in a traffic-safe place, and the child must know that he should not try the trick in traffic, even if he masters it perfectly.

The exercises presented here (see picture) where the feet are placed on the handle bars were discovered by the children themselves without any guidance. Other activities, which mean an increase in the degree of difficulty, evolve out of the handling of the vehicle and can be found similar to the basics also in the program of the cycle artist:

- lift up the front wheel shortly while riding
- place the feet on the saddle while riding
- stop suddenly and quickly change the direction without getting off the bicycle.

For the games the child needs time. This bicycle game should also be played over several weeks until its attraction is exhausted and the child has had enough of it. Three to six children can form a group for bicycle riding and can observe each other with their different vehicles. In this way they learn to react.

4. Basic Forms of Roller Skating

At the age of four, the child can learn roller skating. Also here a flat asphalt surface serves as a practice area. As opposed to scooter and bicycle riding, standing on the roller skates means a more difficult balancing exercise.

At first the child has difficulty pushing himself off on the roller skates and gliding smoothly. One should leave him alone to try it, and only give him advice every now and then, if necessary, on how he can push off with the roller skates. One child learns best by observing; other children through copying and imitating. Again in turn others want to discover, by themselves, what the technique is about and therefore, make perhaps some "roundabout ways" in this learning process.

Each first timid effort and every further development should be noticed and mentioned, so that the child feels encouraged while trying.

In order to learn, the child needs patience and many repetitions. Only in this way can a new movement technique become assured. The child learns first of all the basics of roller skating:

- skating forward and in curves
- skating forward and backward
- skating with fast stops.

Thereafter intensifications can be tried:

- skating around obstacles
- setting up a slalom and skating through it.

5. Changing One's Balance While Roller Skating

When the child has assuredly mastered the basics of roller skating, he can learn to change his balance while skating. For this the following variations are given:

- skating on one leg while lifting up the other
- changing the weight into a squat position, rolling under obstacles
- squatting and getting up several times while skating
- squatting down on one leg while skating.

Perhaps the one or the other child is now already so secure that he can try to jump up in a springy motion from the surface. First a small jump can be tried at which the child carefully jumps up with both legs at the same time. Then the following intensifications come up:

- jumping from one foot to the other while skating
- jumping over a chalk line while skating.

Such exercises the child learns best by copying and imitating. Therefore, beginners and advanced children should practice together in a group while roller skating.

Of course, the children also learn to put on and to take off their roller skates and to care for them properly.

6. Jumping on a Mattress

Jumping on a springy surface is another type of difficult balancing exercise. The best thing to use is a foam rubber or spring mattress or also an old couch. Naturally, a trampoline can also be used: one secured in the ground as shown in the picture at the left or a mini-trampoline which, however, only has a very small jumping area and is less elastic.

Already one- and two-year-olds like to jump up and down. Jumping on a moving surface meets the normal inclinations of the children. It demands a refined reaction and also shows if there are any movement disorders. With constant repetition of this exercise, the child learns relatively quickly to balance himself while jumping up and down.

The child practices first the basic fundamentals:

- jumping up and down, stopping
- turning around while jumping
- jumping, sitting down, and again standing up out of this position.

Possible intensifications are:

- jumping like a jumping jack: straddling the legs and bringing them together again while clapping the hands over the head
- holding hands with a partner and jumping together in the same rhythm.

From the beginning the children must learn to observe the necessary safety measures: one gets off the trampoline, not jumps off. A child who still jumps inaccurately should first practice on a mattress since the trampoline surface has a wide mesh border around it.

7. Jumping and Landing Precisely

The exercise becomes more difficult when old car tires are used as a surface for jumping off and on to, since a very limited supporting foundation must be aimed at; there is not an alternate possibility. The child unconsciously learns precise jumping on and off in this way. First of all the basic fundamentals:

- jumping on and off safely
- jumping from one tire to another.

Intensifications are possible:

- playing ball while jumping
- turning around while jumping.

Precision landing can also be practiced on a small trampoline, which can be bought today as a mini trampoline which is even smaller. There is hardly a child who does not enjoy "flying" and after careful beginnings feels more and more sure as a result of jumping on elastic surfaces.

8. On the Balancing Board

Another movable support and standing base – in contrast to a mattress or a trampoline but still smooth and round – is the balancing board. The normal size is 26.6 inches long and 16 inches wide; there are, however, also longer balancing boards. A room or the grass come into question as a practice area.

On the balancing board children can try their first attempts alone. At the beginning they mostly try hesitantly, but soon increase their skill. Therefore, one should not confine them through encouragement or instruction or confront them prematurely with difficulties.

The one child tries it first in a sitting position, the other in a kneeling position. Both forms are very good for beginning the movement, since the child can direct the rocking through the independent changing of his weight.

As basic fundamentals the child learns:

- sitting and turning around
- kneeling and turning around
- rocking quicker and slower.

After this the following intensifications can be tried:

- rocking without the hand support
- rocking and clapping the hands at the same time.

9. Standing Securely in an Unstable Position

The next exercise on the balancing board should be standing up out of a sitting or kneeling position and sitting down again. Not all children learn this so quickly in the same amount of time. Especially those who are overweight or those who are very tall need more patience and a longer learning time. Therefore, every effort should be encouraged.

Whoever can stand securely on the balancing board tries the basic fundamentals:

- rocking from side to side in a standing position
- rocking back and forth in a standing position
- clapping the hands while standing and rocking
- turning around step by step while standing and rocking
- catching a ball while standing and rocking
- playing with a ball while standing and rocking.

It is suggested that the child be barefoot while practicing the balancing exercises on the balancing board. Through this the reaction system for direction movement is improved and the sense of balance is increased by the body contact.

If the child has mastered the fundamentals, then he can try the following intensifications:

- standing on one leg and rocking
- stretching one leg out and leaning the body to the opposite side without falling
- rocking on the left leg and on the right leg.

10. On the Balancing Disk

Such a balancing disk as pictured here on the opposite page is not always available everywhere. However, there are similar pieces of equipment which can be applied very well to this type of self-orientation and guidance of the equilibrium.

While practicing on the balancing disk the child learns through the directed changing of weight not only to move an apparatus back and forth but also to move it all around. He discovers different solutions by himself. A three-year-old beginner, for example, at first tried by supporting herself on a table. On the contrary, the trained child is successful if one allows him a wide area for his own ideas to do tricky types such as these:

- going around on the disk without getting off
- turning himself while going around.

Such an interesting thing as practicing on the balancing disk motivates the children to create new exercises themselves and to differentiate between their movement abilities. They have fun with "free" plays and tricky attempts and only in such a way can they make new and creative learning experiences.

11. Balancing on a Tin-Can Track

The track is made out of empty tin cans from the household, which can be placed bottom-up on the floor in an always changeable pattern.

Balancing on the cans presents more difficult weight balancing exercises, since the support area is very small and at the same time shaky. Children have fun with this challenge to master the rows of tin cans without having to get off. They discover different back and forth paths or possibilities, alternately crossing over from one path to the other.

The basic fundamentals are:

- going forward
- going sideways.

Examples for possible intensifications:

- changing the can pattern with higher and lower cans
- moving the individual cans with the foot and then stepping on them.

A further difficulty is to take a can or another object in the hand and to juggle with it while balancing. This type of artistry allows for many variations up to juggling with both hands while the child balances a can on his head at the same time.

Not easier, but most likely more difficult, is walking over the tin cans on all fours. Through this exercise, the child's feeling for movement is further refined and he learns to adjust his movements. The touch and support feeling of his hands and feet becomes more sensitive and in turn his grasp and step security is further developed.

12. Balancing on Stationary Apparatus

Up until now, the balancing exercises were performed with a moving apparatus and on movable surfaces. They belong, therefore, at the beginning since they have a stronger attraction for every beginner and encourage the child more intensely to try and handle them rather than the stationary apparatus. Children also try on their own initiative to balance on stationary narrow edges; for example, on curb stones and railings. Similar balancing exercises, like these everyday situations offer, can be presented in many different ways.

The best ideas come from the children themselves. For example, they put up a ladder lengthwise so that the apparatus is low enough for the beginner to allow for getting off quickly. This sort of suspended beam also allows for various ways of practicing in a group, from which more and more new learning motivations result.

A beginner should in no case be forced to balance on narrower edges or round beams. He tries next on a board and only then changes over to difficult exercises on the apparatus when he feels secure enough.

13. On the Suspended Beam

Once the child has mastered the basic fundamentals on the suspended beam, which he already has learned on the movable apparatus, intensifications can be tried:

- carrying a hoop over the beam
- carrying a pillow on his head while balancing
- rolling a ball before himself over the beam
- balancing a pole in both hands while walking over the beam
- carrying a cup of water over the beam.

These double exercises increase the attention and are realized by the children as being especially thrilling and exciting, since the outcome of every effort is totally unknown. Uncertainty of the result means in every play there is an increased learning motivation. If the effort is positive, the success increases the self-confidence of the children and with this the pleasure to attempt still more difficult exercises.

Such an exercise would be, for example, carrying a gymnastic ball (or a cup of water) in each hand while balancing. While doing so there cannot be any *wiggling* and *no* escape is possible. While holding objects of the same weight in both hands, the child feels the balance. Therefore, not only does this exercise practice the feeling for balancing, but the child also gets to know how to adjust his weight.

Possible intensifications:

- while balancing throwing the ball up and catching it, alternating hands
- increasing the difficulty of the mounting and finding the transition from mounting to balancing himself without help.

14. Further Double Exercises While Balancing

Balancing can be varied and made more difficult through further double exercises:

- changing from a high edge over to a lower one without carrying an object or with one or two balls
- turning a hoop with the hands while balancing, so that the hoop turns around the child who steps over it while turning it
- swinging a plastic bag filled with a pillow while balancing.

It is interesting to observe how the beginner solves these and similar double exercises. Compare chapter 37 where climbing over an obstacle with one or two balls is mentioned and chapter 18, which shows climbing and playing with a balloon at the same time. Between these two exercises there is a relationship which should (now and again) be didactically used in the learning program.

Through these double exercises the children develop concentration. In their hands they feel the object they are carrying and at the same time they feel with their feet and move forward while balancing. Such complicated exercises stimulate the child to probe new activities much more than constantly repeated schematic exercises. Here again the children themselves have the best ideas.

15. Sense of Speed and Balance

Run and step wheels as pictured here are found on playgrounds in Germany and Holland. While attempting this, the children realize how difficult it is to keep their balance while at the same time keeping an even rhythm. This exercise requires a feeling for speed and the adjustment of the walking speed with the posture. The child who goes too fast or too slow, loses his balance and falls off the roll.

There are running wheels with built-in counters from which the running speed can be read. This is thought more for the training of adults. However, as the child is interested in the technical parts of his bicycle, thus he also has fun with a speed meter which shows him the kilometers (miles) he has "run" with the running wheel as soon as he can read and understand the numbers.

For a running wheel one can use an old oil or asphalt drum. Balancing on such a rolling drum is even more difficult since the child has no possibility to hold on to the grasping rails which had been fixed on both sides during the first attempts and later in case of an emergency. So much greater is the happiness when this effort proves to be successful and the child can demonstrate a newly learned movement skill, which also — and this not only applies to this exercise — should be duly honored and recognized.

16. Balancing Exercises by Free Choice

In structuring an optimal learning motivation, it is important that the child not only be given compulsory exercises but that there is enough time for the activities which he can choose freely. For this the following attractive examples can be taken from the "balancing" sphere:

- walking forward on a chalk line or a rope, walking backward, hopping, walking straight ahead and in curves
- carrying a pillow, a sand bag, or a ring on the head; sitting down with this and getting up again; walking forward and backward; turning around; running and hopping; climbing up steps, a ladder or a slanted board with support; balancing over a bench or a beam
- standing on one leg: writing numbers in the air with the other foot, bending forward until the fingertips touch the floor, standing up again without rocking, trying all possible types of twisting which could disturb the balance and creating funny figures
- standing on a medicine ball with both legs, on one leg; while standing, rolling the medicine ball forward and backward with the feet.

Important Note: New ideas which come from the children themselves are not only often better than those of the adults, but it is more fun for the children to try them on their own. (Compare section 5, especially chapter 46.)

SECTION 2: EXERCISES FOR REACTION AND DEXTERITY

17. What is Dexterity?

In the first section of this program importance was placed on the assured mastering of balance. The learning aim which should be reached through the exercises in this section is accuracy of movement.

What we mean by physical dexterity is based on a quick, correct comprehension of the present situation and on sure reaction. The single movement must neither receive too much nor too little drive; it must be coordinated. The beginner often reacts roughly and improperly. Only through a number of motivating suggestions and exercises does the child learn to react properly to the situation.

The "unskilled" child is also an untrained child. The intensive aids which he needs to gain dexterity must be in accordance with his still limited reaction. In no way should he be overburdened with too difficult exercises since he might feel increasingly less skillful and would lose the enthusiasm to try. Instead the child must be systematically stimulated by movement reactions. He should learn to make himself more skilled.

18. Games with the Balloon

The balloon is the most appropriate object for the development of the sense of touch and exact coordination. It is light, reacts on the least propulsion, its flight pattern is slow. Therefore, the child learns to react sensitively through balloon games.

The children blow up the balloons themselves and knot the ends. The play begins with hitting the balloons up. The importance lies in hitting the balloon as often as possible. The following variations can be tried:

- hitting with both hands or one hand
- hitting the balloon up high with the fist, with the knee, foot, or a single finger.

In order to determine whose balloon stays in the air the longest, the children count from the moment it is pushed up . . . an exciting and motivational game!

As intensification, the child can try to push up the balloon with a finger, hand, head, foot consecutively.

Also here double exercises can be applied which demand concentration and observation from the child:

- climbing over or up a ladder
- climbing up and down stairs
- climbing on a chair, getting off again.

If the children have mastered the exercise with the balloon, then the difficult play with two balloons at the same time can be initiated.

19. Plays with the Big Waterball

In comparison with the balloon, the waterball is heavier and due to its size is faster in flight. Therefore, while playing with the waterball, the child learns to release the ball forcefully and reacts more quickly. First of all, the basic fundamentals:

- throwing the ball up and catching it again
- hitting the ball several times.

Due to its size, this big waterball is a mighty object for children in the pre-school age — almost bigger than themselves. They must first learn to guide it carefully. Therefore, they should be allowed to try the following intensification of the activity:

- rolling or throwing the ball directly into a certain corner of the room.

Another exercise: The big waterball is tied onto the ceiling with a long enough string. Best of all one lets the children try their own ideas. Some will try to head the ball as they have seen the famous soccer stars do, others will hit it into the air with their hands. It is fun for the children to run quickly to the spot where the ball just came in order to hit it again with the head or hands. This game will be fascinating for several weeks. Through this, the children will become more skillful and will react more and more accurately. Here learning is also improved by watching one another.

Children who are just about as skillful in hitting and pushing off can try to play the hanging ball to each other — a variation of the exercise which especially develops the fast and accurate reacting.

20. Carousel with the Beach Ball

When the games with the ball hanging from the ceiling have been exhausted, something new can be tried. The string is released from the ceiling, the child holds the ball on the string and runs around in a circle. With this, he keeps the ball in the air through the running speed like a carousel.

In this exercise, it is important to adjust one's speed to the flight pattern of the ball. If the child runs too slowly, the ball does not get off the ground. If the running speed is too fast, the movement is overpowering and, perhaps, the string will also tear. It actually depends on the child learning to regulate the height of the ball's flight through measuring his own movement impulses.

What has been learned here can be combined with balancing exercises. The child balances on a bench or on a narrow edge and swings the ball in a circle at an even tempo. For this the child must concentrate very much on his path and his balance — a difficult exercise which often is successful only after repeated failures, but sometimes also on the first try.

21. Soccer Games with Light Balls

Up until now, the children learned to hit the ball with their hands or head. Now we will begin with the soccer games. The light balloon or waterball can be kicked and pushed better with the foot than the hard soccerball. Therefore, the children try first with a light ball:

- kicking forcefully either as high or far as possible
- kicking directly over an obstacle
- aiming at a mark on the wall
- shooting at a goal.

Soccer games are important for both boys and girls, since they promote general dexterity and because the child learns by this to direct his posture through the feet in different ways.

22. Head Ball out of a Jump

Meanwhile, the child can guide the light ball. With it he can now practice the head ball out of a jump. By this he not only learns jumping, but to coordinate the jump so that he hits the ball in flight with his head and by this sends it in the desired direction with the exact amount of push. If the child has also mastered this exercise, it can be said that he is competent to hit and direct with hands, feet, and head.

23. Games at the Wall

Before the child looks for a partner for the ball games, he improves his reaction ability with games at the wall. Also here, one's own movement must be coordinated with the rebounding of the ball and the direction of the ball's flight. For the games against the wall the light, large waterball is not used, but a normal plastic ball the size of a soccer ball is used. It flies faster and demands, therefore, other impulses of controlling, more use of strength, and quicker reaction.

First of all the children practice throwing and catching. In doing so they watch their hands. They stay open; the pushing and catching of the ball are done with the open palms of the hands:

- throwing underhand and overhand
- throwing at different heights
- making the ball rebound from the floor so that it hits the wall
- making the ball rebound from the wall, letting it rebound from there back onto the floor and catching it.

The distance from the wall should be changed repeatedly. It is also recommended to modify the marks to be hit in height and width.

24. Dribbling

Whoever understands something about soccer, knows what it means to dribble a ball. It is carefully and calmly moved with the foot to all sides, when and to where the ball should be kicked. In doing so, it depends entirely on directing the ball accurately.

The exercise presented here shows that the hands follow the movement of the feet — a sign of utmost concentration.

The following variations can be tried:

- dribbling the ball along a circle
- dribbling the ball forward on a chalk line and passing it off to another child
- dribbling the ball, varying between the outer and inner edge of the foot
- varying between the left and right foot and playing evenly.

25. Aimed Long Shots

Whoever has mastered dribbling in place and while moving can try the aimed forceful "shooting" of the ball. Decisive in this are: accuracy of force, quick, forceful discharging of the ball, and target assuredness.

If there is a soccerball goal in the vicinity, one should let the children practice their art at aiming at and hitting the goal. Naturally, one can also make a goal through temporary markers. The wider it is, the easier the beginning for our "goal shooters." Applicable here is what was already said in connection with the other exercises. Practicing barefooted develops the sense of movement (here: kicking, dribbling, pushing, rolling the ball). Good players also practice barefooted; some can even play the ball very agilely with the individual toes.

26. Simultaneous Jumping and Ball Playing

In the first section of this program, the children learned jumping on the small trampoline. In the meantime, they have also become sure of throwing and catching. Now they apply both at the same time. They jump on the trampoline and try to throw up the ball and catch it. This exercise is already well beyond the normal program for pre-school children. Whoever has mastered it before going to school is ahead of less trained peers; however, it proves also the natural ability of this age. Every child can reach this movement accuracy with the appropriate possibilities for play. Let us summarize what has been said about ball playing. The child practices in doing so — mostly unconsciously — varied reaction and refines his coordination ability in changing situations.

As Friedrich Froebel said, the ball was the child's first toy. He knew what environmental experiences the child gains through ball playing: space orientation, change of direction, feeling for speed, and change of speed. The flying, suspended, rolling ball according to Froebel "can hop and jump, turn and swing, circle and fly, come near, go far, can come and go, combine things which are separated."

27. The Popping Ball Game

The popping ball game is good for playing in a narrow room, for example, in the rooms of the kindergarten or at home. All you need is the apparatus pictured here and a table tennis ball.

The games are very tricky and demand fine coordination in special finger dexterity: one hand holds the equipment while the fingers of the other hand use the trigger and the child watches the flight of the ball in order to catch it again in the little plastic cone.

The children develop various initiatives in this game. When they have become sure of handling the equipment, it is no longer accidental how high they let the ball spring out of the cone. They determine themselves whether they pull the trigger down lightly and slowly or with force and quickly. The light table tennis ball cannot, by the way, cause any damage if it springs to the ceiling.

The popping ball game can also be learned in another way. If, for example, a child is not successful in snapping the ball quickly into the air, he can first try to let the ball fall from one cone into another. Through this he becomes more familiar with the equipment and tries then on his own to snap the ball — perhaps at first on the floor, where it is easy to find playing partners who find these variations stimulating so that they like to join in.

28. Games with the Table Tennis Ball

Table tennis is the "quickest" among ball games; with it the child reaches the highest stage of agility. At first he tries alone with and without the paddle entirely according to his own ideas:

- without a paddle, letting the ball spring on the floor and catching it again; letting the ball spring on a table and hitting it as often as possible with the hand
- with a paddle, hitting the ball on the floor or playing it against a wall; letting the ball spring up and down quickly by hitting it with a paddle on a table; walking with the ball on the paddle without holding the ball; holding a paddle in each hand and playing the ball from one paddle to the other.

Already five-year-olds can learn these skills and thereby invent many new types of games.

Children who have become sure in the game with the small ball can start playing together. Here equal ability of the players is required since it is not any fun if one of the players loses the ball and has to look for it a long time. As a playing net the children often use the apparatus just set up.

Through the table tennis game, the child learns to aim accurately, to hit, to evaluate quickly the situation, and to recognize where and how the ball will rebound. Because a quick and sure reaction is required, he also develops his movement fantasy and gathers experience in playing with a partner. There are countries in which table tennis is offered in every kindergarten.

29. Exercises for Skill and Reaction of Free Choice

There are still many exercises for skill and reaction which cannot be presented here. A worked out program of psychological learning and didactical basics in the complete sense of the word cannot be expected here. Because of the free trials and the individual ideas of the children, ample space for playing must be available. Therefore, a number of suggestions for exercises of free choice with other play apparatus than those already described are given here:

With the hoop

- racing with a hoop
- running around a rolling hoop
- running through a rolling hoop
- throwing a hoop in the air and letting it hit the ground so that it rolls back to the thrower
- letting a hoop circle around the body (hula hoop).

With a yo-yo

- directing the rolling movement until the spool rolls up and down evenly
- going walking with the yo-yo in motion
- playing yo-yo in a synchronized rhythm with another child standing opposite.

SECTION 3: LEARNING WITH EACH OTHER

30. What Belongs to Learning with Each Other?

Doing something with each other in sport requires more than singing together in a group or holding hands in a circle game, namely: mutual regard and consideration for the others. This cooperative behavior must be discovered by the children and practiced in the game:

- doing something together with a partner in a group
- helping each other in a difficulty
- setting up the apparatus together
- bringing a simple action to a good result
- observing each other and acknowledging the action of others
- being able to play with a partner
- observing the rules and being able to play a game in a group independently as well as with others.

These examples show the importance of repeatedly creating situations during exercising as well as in the free play which demand the common action of the children.

31. Playing In a Group

First of all, an example for exercises which not only affect the group as a whole, but also demand the same behavior from all the children at the same time: "Everyone please sit down on the floor with me." Here a simple exercise is presented. Nevertheless, it will not be observed or even understood by some children at the beginning. If one encourages an experienced child in this situation: "Can you get Mark?" thus, the individual will learn gradually to take part in the exercise of the group and to do something together with them.

Still different are the exercises which demand the independent handling of the individuals in the group. For this a few examples: For the fireworks game the children collect small colored balls in a basket. Then the "fireworks" are presented. One or two children stand on a chair and pour out the colored balls in a wide circle. Each of the other children runs after a ball.

For the rabbit game many small balls are necessary and a paper basket, which is tied up with bands or belts and can be carried like a backpack. The most skilled among the children is the "rabbit." He takes the basket on his back and begins to run zigzag like a rabbit. The other children follow him and try to fill the basket with the balls.

Just as popular is the ribbon catch game. A child puts an elastic tape around the waist and puts about half yard long colored strips of paper in this "belt." Then the child runs away, and the other children try to follow, trying to snatch as many paper strips as possible.

33. Assembling the Apparatus

The assembling of the apparatus should not be done by several, a few, or always the same children, but by all. The volunteering of the children for such an action is generally great and can be used for the learning of cooperative behavior. "I will show you how the beam is put into the slots — now you try it."

Children learn in a few attempts through observing and practice to undertake the apparatus assembling in a skillful manner. A prerequisite for this, however, is that they know from the beginning how to lift, carry, and roll the apparatus. They then like to show with a certain pride their independence: "We will assemble that alone."

A child who, for example, pushes the crooked mat spontaneously again back into its proper place, shows insight and understanding for the procedure to be followed. He has learned at an early stage to pay attention to possible dangerous situations and to give the necessary assistance on his own.

32. Helping Each Other in a Difficult Situation

The children have learned to practice independently in a group and to do something together at the same time. Now new cooperative behavior will be practiced: mutual helping and supporting. Situations will be opened to the child in which he must pay attention to the practicing partner, in order to help him if it is necessary. Already three-year-olds can learn this. A good partner helps, for example, a child who has fallen off the round beam to get up again onto the beam and offers a shoulder as support while continuing to balance. It is important to see that a change of practicing and helping takes place in a number of repetitions. The child who has received such help should now give this service to another child.

Demonstrate to the children the possible holds and supportive aids and let them apply these techniques under your supervision. It is also important to observe inconspicuously time and again whether the children also grasp correctly and do not pull or push. This "helper practice" must be repeated patiently. As soon as several children have developed themselves as sure helpers, of which they are proud, you can give your personal attention to those who still have difficulties in helping and, therefore, need your special attention.

34. Gaining Insight through Mutual Observation

Children observe themselves often and very exactly and by this, not only control the doing of others, but also the action of themselves. If you ask, for example, what a certain child needs to do in order to jump higher on the trampoline or maybe, "How did you manage to get on the bar?", the child will answer spontaneously and almost always correctly. The child learns through accurate observation not to systematically copy a movement, but to recognize and judge independently the present situation and to find an individual solution for his problems.

A child who has learned to observe well, gradually develops a certain feeling for the game rules and for what is right and fair: "Michael has cheated and that doesn't count." The older children are often more lenient toward younger children in the controlling of the rules than with those in their own age group: "Martin is allowed to try it twice, because he is still so little." The wide range of hopscotch games is based, for example, on rules systems which the children have established and applied themselves. Already four-year-olds, in the playing group with older children, are absolutely willing to recognize and keep the hopscotch rules.

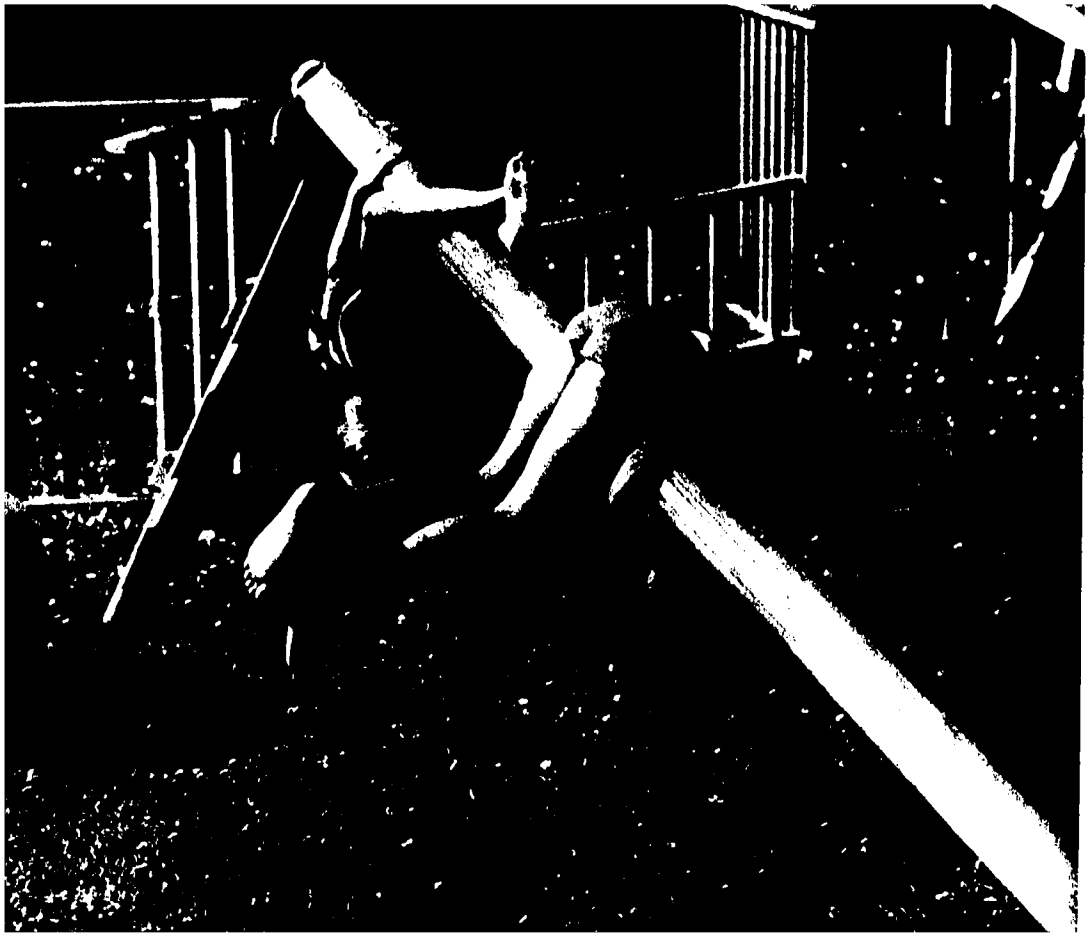
35. Paying Attention to Each Other

For the child who can observe and who has learned to follow rules, the next step is to adjust to a partner and a group in an exercise. Here the importance of how to associate with other children, which at first is a difficult problem for every child, is involved. A five-year-old boy, for example, likes to play football very much with his father or an adult because the older experienced partner can play the ball directly to him and, therefore, there are no difficulties for the child. But does he associate with his peers in playing? Don't they hinder each other or are there exercises which they can solve mutually?

Examples:

Two children go toward each other from opposite directions on a bench or on a balancing board. This exercise is done so that the two go past each other without falling down or pushing each other down.

A step further is the example presented in the picture: The children make a pontoon bridge. The supporting backs need to be under supportive tension. The child who goes over the bridge must carefully feel his way because otherwise the other players will no longer be willing to let themselves be "stepped on." If the game is accepted by all and is successful in this form, then a movable bridge can soon be tried in which the group of children move back and forth together, while a child walks over them. Here everyone must pay close attention to the rhythm in which the other one moves.



SECTION 4: CARRYING ONE'S OWN WEIGHT

36. Body Weight and Strength

Up until now, the child learned to hold up his own weight, to be sure of his reaction and to use cooperative behavior to play with others and mutually to solve problems. In this section the mastering of one's own body weight is dealt with — a learning goal which can be reached through exercises for climbing, jumping, hanging and swinging.

In these movement skills the child must carry, support and hold his own body weight. In this he needs strength — support, jump and hanging strength — which is developed through constant practice. From the building up of strength and increased feeling for strength, new motivations for exercises are given which improve holding, supporting, hanging and swinging as the increased quick strength demanded for jumping, hopping and springing.

For the child, it depends above all on the learning of flexible, quick strength movements. In doing so, we should, from the beginning, think of the beneficial health influences. The child who can climb is also not weak in posture and torso; the child who can spring, hold up his body weight, and catch it again is also flexible in walking and running.

37. Climbing: Over, Into, Out of

In climbing, the child moves from a position of standing firmly on both legs to placing the weight on one leg in an upright position for a short time. The higher the obstacle, the more difficult it is to keep his balance.

The basic fundamentals of climbing over obstacles can be learned on simple apparatus:

- First of all, the children try to climb over a "magic string" it gives if the child gets stuck and can be varied in height. Then you can use bottles, medicine balls, or a bench for climbing over or with the children you can build obstacles out of blocks or cartons.
- The climbing over of tires held at a moderate height is practiced at first by the children on the floor, then on a bench, which has a narrower supporting surface. These exercises can also be tried in another situation. A ladder is laid down on two low chairs and the children climb over one rung after [illegible].

Intensifications: through double exercises as well as through in[illegible]he height of the obstacles:

- The children carry an object, for example, a deck tennis ring, [illegible] head while climbing over the low[illegible]; through this the posture is supported at the same time because the he[illegible] the weight cannot be lowered while climbing.
- In climbing over h[illegible]es, the child must make a wide swing with his legs and must push p[illegible]fully with the leg on which he has his weight. Variations: climbing over the ladder sideways, climbing backwards, turning around while climbing. Also here, double exercises can be tried, such as carrying a ball while climbing.

38. First Steps Toward Jumping Freely

Children who can safely climb over a bench or a horizontally held ladder one day get the idea to jump over the obstacle. Wait patiently until the child discovers that jumping over the obstacle is faster and the others follow. First of all, the child learns to jump out of a squat: he pushes his weight off with his hands and jumps over. As the child had to put his weight on his legs during the climbing exercise, thus, the body weight is carried mainly by the arms in the push off jumping.

In much the same way jumping down out of the climbing is developed as a further step to free jumping. After this a slanted surface serves for the purpose of climbing and jumping off, for example, a slanted board. Climbing up to a height of 32 inches is done by beginners at first on "all fours." Before we are ready for the jump down, transitions should be built in; for example a beam, a bench, a low table or chair or a box. Then the actual exercise follows — the jump out of this height onto a mat. The quicker and safer the children learn the climbing up, the less hesitant they are in the jumping off. They develop fast walking out of safe climbing and then only use the slanted surface for the approach to the jump.

Instead of a ladder and mat, you can also use a "hilly" broad jump track which also can be made where there is only a simple sandbox. Combinations with beams or a bench are possible without much problem.

39. Jumping from a Springy Surface

More difficult are climbing up and jumping off, when done with an elastic surface. The foundation is springy and this makes it hard to keep one's balance. After the first difficulties which mainly rest on uncertainties, the children take full advantage of the springy trampoline surface through a number of up and down jumps for their jumping strength. They can:

- pull their legs up in the jump
- touch their toes during the flight
- spread the legs
- fly stretched out
- turn around
- land safely on the mat after all jumps.

40. Hanging Requires Security in Gripping

The child carries his own body weight when hanging. Prerequisite for this is grip sureness. The horizontal bar is not only the appropriate but also a very much liked apparatus with which the children learn this skill. Use the bars in different heights: three feet, four feet, and five feet.

Fundamentals:

- walking in the hanging position; this means to walk far forward and again backward with the hands
- turning continuously around and while doing this changing the grip quickly in the hanging position
- in the hanging position doing "bicycle riding" with the legs.

Children very often discover themselves that hanging and swinging from the hands and feet is fun. They lift the legs up, put the soles of the feet against the bar, and swing comfortably forward and backward. Children who are still unsure and don't trust their hanging strength can be helped through a light pressure against the heels. If the child puts the head into the neck while swinging, he quickly loses the orientation. Therefore, the additional exercise is given, "Can you see your feet?"

If the children master the swinging in the hanging position, they will soon try a further hanging technique on their own — hanging by the knees. They hang on the bar by their knees, release the hands from the bar, swing like a bat with the head down (by the way, the best stretch and relief for the backbone), grab for the floor and jump off with the support of the hands. These skills are practiced without any introduction also on the playground bars already by four-year-olds.

41. Extended Swinging

Up until now the children have practiced on the low horizontal bar. Now they change over to a higher bar.

At first the children learn the extended hanging swing, in which the legs are extended as far as possible in front and behind. A good measure of body control belongs to this. As soon as the necessary grip and hanging security are acquired, intensifications are tried:

- releasing the hands in the back swing and then again quickly grabbing the bar
- jumping off while swinging back
- jumping off while swinging forward
- a half turn while swinging.

42. Exercises on the Chinning Bar

Other hanging possibilities are tried out best on the adjustable chinning bar, which can be installed in the kindergarten and also at home without any problem. Here, above all, mounting is practiced. The beginner helps himself sometimes in doing this with the climbing techniques, since he cannot yet use the swing of his body weight. He should be presented with different practice opportunities in his daily environment — on the hands of his parents, on a railing, on a bar.

If the child is sure in mounting, then he can independently vary this skill everywhere there are bars to grasp by:

- changing direction and speed
- combining the mounting with different ups and downs.

According to the height at which the bar is set, the children can try still other exercises on the chinning bar, above all those which they find themselves. They hang, for example, with the bended knee or the elbows. By doing this children are capable of inventing artistic skills, which no adult can. They spring with their stomach onto the bar, support themselves with the arms and roll around the bar on the stomach.

43. Swinging on a Rope

In swinging on a rope, the strength of the shoulders and hands is supported through the grip of the feet and thighs. At first the children jump up once or twice off the floor in order to learn to grab the rope securely. Then the swinging can be tried:

- swinging back and forth as often as possible without letting go of the rope
- turning oneself during the swinging (when is the best moment for this?).

The more swing the child uses, the longer the swinging path; it can still also be lengthened by raising the jumping-off surface. Furthermore it depends on precise jumping off so that target landing is possible:

- jumping off from a bench and landing on a desired point on a bench standing on the opposite side
- the same exercise with a raised jumping-off and landing surface, for example, a higher box
- starting from a raised jumping-off surface and landing exactly in a tire (hoop) held at a certain distance from the floor
- knocking over pins set up on the floor with the foot while swinging
- while swinging, carrying a ball held between the feet and letting it fall into a paper basket on the floor.

Children with good grip sureness try to hang upside down on two ropes and to secure themselves with the feet while swinging back and forth.

Variations: The child increases the swing by quickly pushing off from the floor with the feet every now and then. He also can somersault while swinging forward or backwards.

Hanging and swinging strengthen the grip sureness; climbing, in contrast, puts emphasis on the sure-footedness. If the child can carry his weight and wants to shift his weight upward, he needs strong hands and feet that he learned to coordinate in his motions. Beginners have the tendency to grasp too high with both hands at the same time and therefore, lose their hold.

Untrained children should first climb up over a two- to three-yard (6-9 ft.) height when they have learned to climb down again slowly and with sure-footed support. Children must be offered many opportunities to try what they have confidence in and how they can continuously broaden their experience. While climbing, the child especially experiences his progress.

Many of the familiar climbing apparatus are not appropriate because they are built too rigid and too low — rather more for stepping than for climbing. Climbing nets are, therefore, more recommended as climbing towers and poles. They move and demand a different type of reaction. The play and learning situations which they offer are varied. The children must, therefore, adjust flexibly. The climbing net is especially recommended for the beginners. Here the child climbs up, holds, grasps, and supports himself, learns transferring of weight and correct situational reacting. As ideal for somewhat more trained children are the elastic climbing trees with broad branches in various heights which are hardly found on playgrounds or in kindergartens anymore. A "climbing cage" which demands these requirements optimally is the 'Ketten-Kletterberg' in the Cologne Rhein Park (climbing hill made by chains). It is a suggestion for a thoroughly realistic exemplary installation which should be available today in every community.

SECTION 5: IDEAS AND DISCOVERIES

45. Play Areas and Situations

Exercises can only show examples of what is to be accomplished in teaching and learning. In this way, they have a double function: to open up the proper way to the respective movement ability and quality and to stimulate individual ideas and discoveries. In the present discharging of the learning program, this second function has been repeatedly mentioned. In the last section it will once more be especially emphasized.

In the movement play there are many possibilities from which new ideas can be gained from the elementary skills and used to form new movements. Prerequisite for this is that the children be given enough freedom and time for their games and that playrooms are at their disposal, which not only offer ample space but also bring about interesting situations.

Possible play areas among others: water, sand, hard and green areas with play corners, bends, corners, slopes and ditches. Interesting situations regarding the respective playroom result from the coordination of different factors:

- the stimulating effect which comes from a variable offer of situationally interesting areas, rooms and educational objectives
- encouragement, acknowledgement, and carefully selected support through which we motivate the children to new learning intentions
- the play group itself in which the children learn from one another.

46. Children Practice What They Like

Unconstrained improvising and trying develop best through regular repetition of what has already been learned. For this a so-called "circuit" is suggested, which means a circle with different practice possibilities synchronized with one another. Apparatus familiar to the children are set up at random. Each child starts exercising on the apparatus which he likes the best. After several tries on this "favorite" apparatus, the children change to the next apparatus so that in the course of the program the "circuit" has been tried out by them at least once.

The children practice on their own. They can repeat what they previously learned but also in a varied fashion. If a child has a new idea, then the group can take up the suggestion.

This attempt to stimulate the individual learning initiative of the children is related to known accomplishments and is directed toward independent application and formulation of a few, but well-known movement elements.

Unconstrained trying of this type is possible when the present basic forms are mastered. Of course, the child must also learn to recognize his limitations; for example, to climb only to that height from where he can again come down safely. You should allow the children to try only such skills for which they have mastered the prerequisites. If the child can protect himself and observe the dangers of a risk, appropriate opportunities should be made available to him for the unconstrained attempts.

47. New Learning Situations Through the Reconstructing of Equipment

The reconstructing of equipment can allow new learning situations to develop. It happens totally accidentally when the children get an idea while reconstructing spontaneously. They sit down, for example, on the mats and let themselves be pulled by the other children or their fantasy will be stimulated through the back and forth motion by the transport of the apparatus to lie down or stoop on a beam or a bench. One child says, "I am a frog," and acts accordingly.

Naturally you can use the reconstruction also to create new learning situations. Easily reconstructable apparatus incite various games. Thus, for example, a beam which can be laid on the stand either low or high or which the children themselves can bring out of the horizontal into a slanting position can lead to creative behavior. Ask the children, "On what else can we balance?" An example for a new idea, which in turn was given by the children:

- Until now the balancing board was lying on two blocks. Now the children are carrying and holding the board in such a way that it offers a swaying base. The child balancing on it can freely try in the new situation, for example, to change from standing on two legs to standing on one leg.

Children who only react to the instruction of an adult or only learn what is compulsory do not develop any movement intelligence. Firmly established norms for the movement development, as for example, the constant same type of apparatus combinations, hinder the movement fantasy of the children.

48. New Play Ideas through Apparatus and Materials

The imagination sphere of children is especially productive when they can freely play with apparatus and materials. Contrary to adults, they are in no way rigidly fixed on the purpose for which an object is normally designated. By playing, they find new possibilities for using them and often the best play ideas. Here are several examples:

- "Gigantos" — Plastic parts, which already stand in the Rhein Park in Cologne for playing in the sand, were converted into floating islands in a kiddie or swimming pool and from there on were used by us in the swimming pool.
- The new foam rubber mats in the kindergarten serve, leaned against the closet almost vertically, as something to spring against or (for those who especially want to go high up) a place to "fly" toward, when it depended on springing or flying the highest.
- Also invaluable materials inspire play ideas. An old newspaper can be spread out on the floor and can be jumped over at different widths and directions. Folded several times, it can be used as protective cushioning upon which a child can sit and turn like a top. Empty thread spools, shopping bags, styrofoam, foam rubber, cartons, or beer coasters can be incorporated with fantasy by the children into their movement plays, as, for example, old oil drums, boards, bricks, car tires, or concrete pipes.

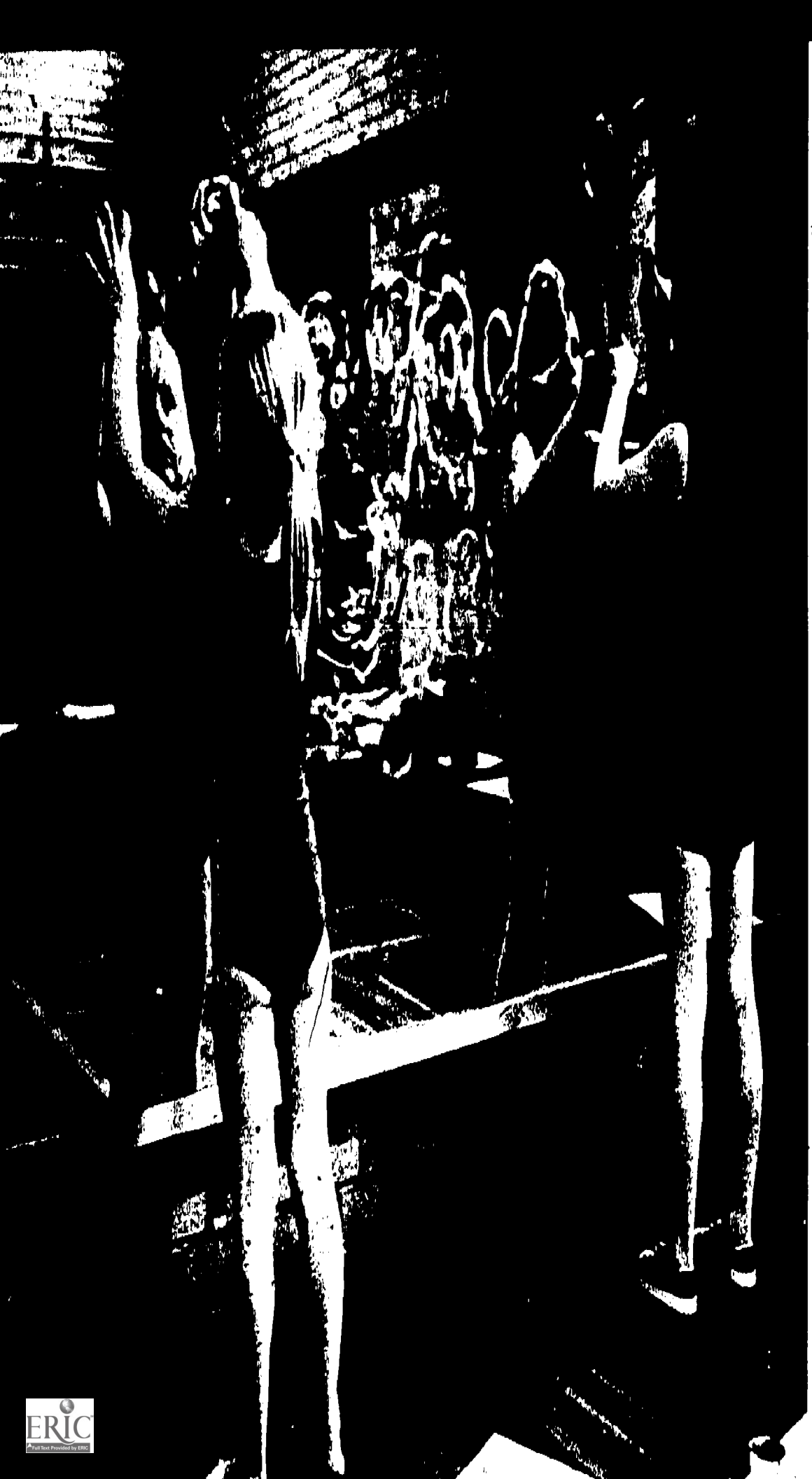
Whether standard apparatus, familiar or unfamiliar material, if we let the children handle them freely, they will spontaneously find out new play activities. They learn to use everything for playing.

49. Discoveries in a New Surrounding

The children are not always stimulated to new play ideas only through apparatus and materials which are available at home or in the kindergarten. A changed surrounding also challenges new ideas for movement plays. Different types of stimulating situations are presented while taking walks and going on field trips: a shaky tree branch for balancing, a slope for somersaulting and rolling, a wide step for hopping and jumping.

On a field trip, situations which lead to a stream are found to be especially interesting and stimulating for the children. Here, for example, they can build a bridge or look for an object upon which they can jump to new situations, in which the splashing water makes the playing especially attractive. Similar play ideas can also materialize in a low water pond or even in a big rain puddle. Prerequisite: loose clothing and summer weather! The learning concept upon which these attempts for the stimulation of individual ideas and discoveries of children is based should be summarized here once more:

- to create a freedom of movement environment
- to build on familiar movement skills
- to refine techniques and to apply them in many different variations
- to make problems clear and to encourage the children to solve problems independently
- to give the children opportunities to compare experiences in order to be able to gain insights which lead to independent mastering of difficult sport techniques.



50. Creative Expression and Movement Memory

The insertion of creative expression materials gives important indications for the crucial points in recognizing and experiencing of the child. In this the movement memory gradually registers the movement procedure more exactly. Attempts with creative expression of movement motives before and after the practical experience showed the difference: overdimensional rolling movements (somersaulting) were normalized after practicing and took on realistic forms. The movement memory was practiced through the attempts of creative presentations.

In the case described here, mutuality, symmetry, and the problem of which motions the children know to do with both arms or both legs at the same time were involved. The attempt showed that they remembered how they balanced two balls in the hands. The mutual movement, "jumping jack," was also characterized. In front of the big mirror the children drew figures with both hands at the same time. This wide spaced drawing was directed by one's own body movement. The children drew spaciously to both sides, stretched themselves or bent down into a squat position in doing this.

This two-handed drawing and other types of creative expression, which give a deeper insight into the movement presentations, should not depend on the availability of a big mirror. Also large sheets of paper, for example, pulp paper, which you can fasten to the wall, are applicable for this purpose.

Pictorial References:

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