Described are the purposes and activities of the lekotek, a Swedish private, non-profit agency whose name was coined from two Swedish words meaning playthings and library. The lekotek advises families with mentally retarded or other handicapped children at home as to such play activity and educational stimulation as will further the development of the child. Children and their parents visit the lekotek individually or for the group training program which aims at structured educational stimulation for young children. Free toys and educational tools are selected with regard to each child's level of functioning. After training in that play tool and after the child has mastered its principles, it is exchanged for others, on a slowly increasing scale of difficulty. Discussed are the necessity of knowing toys' functional construction, suggestions given to parents for regular educational play with their children, and activities used to stimulate motor and speech development, eye-hand coordination, and self-identification. (KW)
LEKO
TEKET

PÅ BLOCKHUSUDDEN

A PROGRAM FOR TRAINING THROUGH SYSTEMATIC PLAY ACTIVITY
THE BOEL SCREENING TEST
- A PROGRAM FOR EARLY DETECTION OF COMMUNICATIVE DISORDERS IN BABIES, DEVELOPED BY THE LEKOTEK.

BOEL means, in Swedish, "look orientates after sound". BOEL is an aid for screening of sound attention and general development in 7-9 months old babies. The screening test is meant to be fit into the general routine of the well baby clinics. Contact with the environment is necessary to all living organisms. For all children the capacity of speech and communication means a question of health.
"Lekotek" is a fairly new word. This word has a nice sound in Swedish. It was coined some years ago, as an analogy-formation of the Swedish words for playthings, that is leksaker and library, bibliotek - which pertains to its function. It is, however, important to define the word in order to understand its relationship to the development of mentally and otherwise disturbed children. Just to lend toys and play-tools is not the real aim.

A child’s play is his work - a trivial truth which we, too easily, forget. Mostly, work demands the instruction of trained personnel. This also applies to such child guidance which has the aim of furthering the development of the child. The proper toy for every stage of development ought to be the motto of a "lekotek".

To find potential abilities within every section of the child’s actual level of development does not only require a good contact with the child and his parents. Professional knowledge of the normal child’s development phases is also necessary, as well as an understanding of the parents, as to their will - and skill - to train and help their children.

When the "lekotek" idea was created in Stockholm, in 1963, it was badly needed. The ground was prepared for an initiative in this field. The background had been formed long ago. There is in many families of the mentally disturbed children as well as of otherwise handicapped children, an unsatisfactory feeling of shortcoming on the part of the parents. The opportunity to create something positive from these feelings originated from a growing heap of letters on a desk. A tiring heap - as those things always make one tired, which seem to be unanswerable.

Most of those letters came from parents of mentally retarded children. Some of the parents had not managed to accept the latest doctor’s decision, some had not yet been given a definite diagnosis. Some were undecided as to the future. Could the child stay at home or not? Some missed the contact with other parents. Some had grown-up children - and the problem of "over-protection" could be sensed between the lines. Some had grey color of a hard day’s work - without meaning or zeal.

All the writers had one thing in common - the feeling of loneliness and dissatisfaction with not being able to do something for their own child, as well as for themselves and their families. The sense of guilt, so familiar to parents of retarded children, turned towards the inability to occupy the child. There were playthings in the house, perhaps - but the way to use them in a meaningful way was unknown. We had to decide. A possibility must be created to activate the retarded child, as well as his parents, as long as both of them are living together at home. "A handicapped child means a handicapped family" seemed to be a thesis with a lot of truth in it. Perhaps we could solve a bit of the problem, if we just tried, just started.

Thus the preamble of the "lekotek" was given. There grew up the outlines of a new kind of advisory agency with, in part, quite different functions than the traditional ones. Under unconventional conditions, we wanted to try to advise those families who kept their mentally handicapped children at home, as to such play activity and educational stimulation which further the development of the child - as far as it is possible.

The training guidance is quite individual and unique. Children and their parents are welcome to visit the "lekotek" at individually adapted consulting times. Free toys and educational tools are selected with regard to the individual child’s functioning. After a suitable time of training, i.e., when the child is "finished" with a given state of the training, the play tools are exchanged for others, at a slowly increasing scale of difficulty.

Family guidance, in a broader sense, was not meant to be included in the purpose of the "lekotek". However, many problems automatically turn up during our family contacts, which are related to social family questions. At such times we always recommend that parents join the local parents’ association for their children, and get in touch with the family advisor there, if there is any, or the social worker of the proper community service.
The Swedish F1JB corresponds to the associations for the retarded children in other countries, and is part of the International League of Societies for the Mentally Handicapped as well. There are parents' associations for otherwise handicapped children which we, of course, recommend parents to join, whenever this seems more adequate. We are glad to have the opportunity of co-operation with other activities in the field of different handicaps in children.

The financial support for the "lekotek" is created by private initiative, although the County of Stockholm, since 1971, supports a good part of the budget. First the Swedish Scouts' and Guides' Association raised the funds through the successful "Horseshoe Campaign for the benefit of the mentally retarded." Mrs. Joseph P. Kennedy offered at that time, in 1966, a most helpful support to the campaign by coming to Sweden and informing on the needs of the mentally handicapped all over the world, thus attracting the interest of the press and the mass media, which is so essential to all private initiatives. Nonprofit foundations, as the "Sven Jerring-fonden", "Radiohjälpen", "Åhlénstiftelsen", "Folke Bernadotte-stiftelsen", "Mors Blomma", "Nathorst-stiftelsen", "Föreningen Margaretha-hemmet", etc., have been helpful, as well as the "Första Majblomman" which is a yearly fund-raising drive for physically and/or mentally disabled children. There should also be mentioned the "Solstickan" - a matchbox which is sold in Sweden for the benefit of the children and the aged. A simple translation would be "The Sun-match", or "The Sun-stick". In the long run, we are aware of the necessity to let society take over, but so far the "lekotek" is a private, non-profit agency.

KNOWLEDGE OF TOYS' FUNCTIONAL CONSTRUCTION NECESSARY

Tools for our aim - to encourage training and to promote the interest and the development of the children - are often rather expensive in Sweden. Originally some of them are not meant to be bought by the individual family but to be used in preschools or other professional situations. Thus there is a need for professional knowledge, so that they shall be used to the full extent of their possibilities.

But there is not only needed a knowledge of the tools for play activity. One must also learn to understand the very special problem of mental retardation, as well as of any other form of mental or emotional disturbance, physical handicaps and so on. It is, in other words, necessary to get all information about the kind of handicap, which applies to every individual case.

We all know very well that inactivity is a great danger to any handicapped person, but too often we surrender, and give the child just some toy which he has happened to choose. We do not test - systematically - what possibilities there are of stimulating an individual development. "He loves everything technical", a father says, and lets his son have unrestricted access to the tool-box, or electric materials. The result may be that the boy stays in a corner, sitting alone with his screwing and unscrewing, endlessly manipulating small, meaningless, self-invented constructions - which possibly gives the family an eagerly longed-for hour of peace, although adding nothing to the different phases of the child's development.

In order to assist the family in understanding and helping their child, we have to start with some elementary facts about normal human biology, as well as with some important characteristics of mental retardation. Then we have to realize that all our games and all training demand their own maturity level in the child. There is no sense in trying to pass one level without having tested that the child has been able to pass preceding levels. We can never break into a development sequence anywhere, regardless of what has happened previously, or what is going to happen next.

The parents of course often know the main features of normal child development - for instance when he starts sitting, holding a thing, creeping, walking, eating by himself, saying words, talking, running, etc. But many parents are totally blind to those developmental details which are not too apparent. In fact, many parents do not know anything about the fatal criterion of mental disturbance which, by experts of psychology, is called perseveration, which means a kind of obsessive attachment of repetitive movements words or other sounds, or both in combination. In the syndrome of infantile autism for instance, perseveration is one of the typical symptoms. Today, there is much discussion going on as to the adequate means of reaching through the thick walls of isolation in the autistic child.

There are, among other suggestions, e.g., the method of operant conditioning - with different types of reward and punishment as positive and negative reinforcement - the method of "shadow therapy", the method of
Although some of these methods may be wrong, we are convinced that there are ways to reach the autistic children, as long as we give them a strictly structured educational program, firm in its outlines. We believe that the barrier, consisting of a mixture of indifference, a kind of self-sufficiency, and an uncanny independence, can be forced through occupation, even though interaction with the children seems unattainable. Many signs indicate that their maturity process is hidden, e.g., their speech development. Often they give an impression of subsequent development which is impossible to check on. Thus, the method should be to train them as if they were co-operating. We believe that this is worth while.

With the very young, communicatively disordered children we have found it necessary to emphasize to the parents that an intimate bodily contact between mother/child, respectively father/child, should be practised. The "natural" auditory training, that is to speak in a pleasant way directly into the ear, with "cheek-to-cheek" position, is adaptable in any communicatively disturbed child, regardless of the child's handicap — a lack of organic hearing, as well as an impaired functional hearing. Speech impaired children should always be stimulated as to finer hand movements, and a simple stimulation of the palms and the fingertips should be practised, e.g., by only using an ordinary nail-brush, easily scratching the palms, etc. All training with these children should aim at the creation of a "you-and-I" situation, including a mutual exchange of taking and giving, e.g., "please, may I have..." - "there you are" - "please, may I have..." - "there you are" in a series with a result.

Very small children have very small attention spans, of course. It is important to use all means to catch their attention, e.g., through some hidden sound source with an attractive sound, or some visual stimulus which turns up suddenly, etc. It is as important to break the training when it is still attractive, when the child is having fun. Thus, he will long for the next training while, we hope, and one day he will take an initiative himself.
We have found it utterly important that even the parents know why a play tool has been designed in a special way, and how it can be handled in different ways. We have found that most people know rather little about children's toys, as well as about the rules of learning, generally. Most parents seem to start from the assumption that children play with toys given to them, the less "adult interference" there is the better. Perhaps this is true in regard to many normal children, but it is certainly not true with the mentally disabled.

**REGULAR TRAINING, FOR SHORT OR LONG PERIODS, EVERY DAY**

Usually we suggest that one of the parents takes the time to go through a little program with the child, at least once a day. Many different conditions influence this training time - perhaps the child is very restless, perhaps the parents are hardworking and pressed for the time. The main thing, though, is that the minutes given to the child are quite relaxed and characterized by unbroken peace. The length of the training depends on every child's individual capacity. There are as many restless as slow and tardy children among the mentally retarded. To all of them, however, three points are important:

1. These minutes belong to us, my mother - or my father - and me. Now we enjoy each other's company - just the two of us.
2. The exercise we are doing may broaden later possibilities to do something useful. Play may also be a way of finding that it is fun to be able to solve a problem, to succeed, and to be praised for it.
3. The daily play period should, if possible, take place at the same hour, so that the child can look forward to it. Fixed habits, even in playing, will help the child get accustomed to following certain fixed rules and hours later on, when this will be demanded. For instance, to take the child by his fist and show him the hands of the kitchen clock at the same time every day will perhaps at least give a result. The child will by and by get a feeling of the clock and settled times.

The toys and play tools, intended for the training hours, should not be at hand when they are not used. Mother - or father - should fetch them from some fixed place, e.g. a cupboard or a chest of drawers.

**IDENTIFICATION - DISCRIMINATION - ASSOCIATION - GENERALIZATION**

**FOUR STEPS IN THE TRAINING OF "LIKE AND UNLIKE"**

To identify colors, forms, scents, sounds, weights, etc. is the first step in all sensory training. Once an identification is established, the concept has to be brought out to a wider field, i.e. be associated with all related subjects. To recognize the red color in a ball means that one should be able to recognize the red color of a scarf, of an apple, of a skirt, of a block, of a toy car, etc. Thus the concept of "red color" will be generalized.

To a large extent we use kindergarten material, or nursery school material, at the "lekotek". The best approach to a child is certainly through his senses. The "lekotek" has a choice of material, meant to train the senses through the ability of discrimination. Thus, it is as important to recognize two equally loud sounds as it is to be able to learn what colors differ mostly from each other, and what colors are just a little unlike each other - and finally what colors are almost identical. The training of the senses' ability to discriminate should be applicable to sounds, scents, forms, colors, etc., as well as to structures, lengths, nuances of the colors, etc. The various grades of difficulty increase successively with the capacity of the children.

**MOTORIC EXERCISES**

As for physical development, we know that it is important to plan daily activities that involve movement and the use of large and small muscles. It is quite evident that a part of the body, which does not get any training, will sooner or later "slow down" and "lag behind". This applies also to the mind, if it does not receive its own exercise. We know that the motoric functions of the retarded children are often diminished. As a rule both the use of the large and the small muscles are underdeveloped. Thus, we try to compose play and training so that both types of muscles are used.
To throw a ball seems to be a very simple exercise, but it means to be able to judge a distance, to adapt the power of the muscles, and to keep the balance - three important factors. To change from a big ball to a small one demands a good adaptation exercise; the grip changes, less strength is needed. We advise the parents to supervise the ball-throwing properly.

Some children, of course, cannot throw the ball at all. Then we start by sitting on the floor, just rolling the ball to and fro between us. When the child succeeds, we may turn the hand forward with the back side of the hand, etc. At last, when the child has succeeded in the first stages of the ball-throwing, we increase the grade of difficulty by increasing the distance. Last we start training ball-throwing with one hand.

**SPEECH - THE IMPORTANT COMMUNICATION WITH THE SURROUNDINGS**

In a great many cases of mental retardation, speech and language are more or less undeveloped. Language development is, of course, dependent on listening and understanding, as well as talking. Many speech disturbances are caused by such central damages that demand physical training as a "support", which is not always easy for the family to understand. The training of the small hand muscles may contribute to stimulation of the speech function, in an indirect way, of course.

Many parents do not think of the breathing apparatus as a part of the speech organs. Thus, we begin a future speech training program by blowing boats in a water-filled tub, by blowing small cotton-wool pellets, or trying to pick them up and keep them with a suction-pipe, by blowing thin strips of paper or feathers, etc.

Often the speech difficulties of mentally retarded correspond with stiff and awkward movements of the whole body. The vocalization may be tense, and the voice hoarse, even stuttering. The parents can contribute to the very important work of the speech therapist through training, the aim of which is to make the child less clumsy.

Many mentally retarded have far more passive language and understanding than the parents are conscious of. Thus we encourage the parents to talk to their children - telling them what they are doing, clearly and quietly - as if they could get an answer. In training rhythmical movements with music, we tell the parents to be observant - it is essential to teach the child to start, and to finish, a movement at a given signal. Many handicapped children love music, and many parents who have observed this, perhaps "park" the child beside the radio or television, passively listening to the non-stop music. We encourage the parents to borrow music boxes, or a gramophone, from the "lekotek". Instead of this passive music-consuming which is represented by the radio-music, the child may select the music himself, among the records - at least, we hope so. The capacity to make a selection is a first step to self-support.

A good way to make the children more "speech-minded" is to use a telephone. There are children who cannot speak directly to persons at all - but through the receiver they are able to communicate in an acceptable way. Thus we have stored secondhand telephones, in order to lend them to our families.

There are, certainly, children among our visitors who have stopped at a certain level of speech development - because of their parents' exaggerated love and over-protection. The parents understand what the children are saying, even if their speech is badly articulated. Sometimes they even anticipate what their child is going to try to say, in order not to strain the child. Thus the child has no need of making efforts to talk, as father and mother act as interpreters. And the child's speech remains incomprehensible to anyone but the parents - because of this misled love.

**THE IMPORTANCE OF SELF-IDENTIFICATION**

Brain-impaired children often miss the function of self-identification. Even the autistic child seems to be unfamiliar with his own body. Among all the speech exercises we normally try to demonstrate to the parents, there is an exercise with a puppet, pasted in a book, the twin made of flannel. The twin is put beside the book with pieces of her dress spread about. Then we start telling a story about the little girl - or boy - who could not go out for a walk, because she had no clothes on. - "Do you want to help me to dress the girl so that she can accompany us for a walk? Help me to dress her exactly as the puppet in the book. What is this? Stockings? How many? Two? Why does she use two stockings? How many shoes do you have? etc."
In this way some children may learn to recognize parts of their own body and pieces of clothing. The child takes part in a simple action. If he has no active speech, he may be taught to point to his own body and parts of his own clothing. The tactile function plays a role, too. Flannel is a nice material to feel between the fingers.

Other tools for self-identification are built on the same idea. Another type is a puppet placed into a landscape in the spring, summer, autumn and winter - and the clothes are adapted after seasons. Other puppets are constructed to direct the training to the face and its parts, to the limbs, etc.

THE IMPORTANCE OF TRAINING THE SMALL MUSCLES

Retarded children often have a way of gripping, which resembles the grip of a normal child during the first year of age. Instead of gripping with the thumb and the index finger like normal children do already at 9-10 months of age, they place the whole palm over a thing and seize it. Finger-games are useful in order to develop the motoric function of the finer muscles.

Play will strengthen the hand muscles as well. As the retarded child often keeps some little thing hidden in his hand all day long, it is essential to try to let him drop things, e.g. small wooden balls through a hole in a box. As this may sound attractive to the child, he may like the exercise.

EYE-HAND CO-ORDINATION

Although the training of the senses is most important to the mentally retarded, we must never forget the co-ordination training. The developmental profile may be very irregular, as for the development of the visual function and the motoric function for instance. The "lekotek" has a lot of good training material where the hand and eye have to co-operate. It is most essential to draw the parents' attention to the failing eye-hand co-ordination, so that they try to force the child to let the eyes accompany the acting of the hand.
Many of these tools are originally constructed to help cerebral palseid children, but they have proved to be very adaptable to autistic children, as well as to the restless type of brain-injured children.

A "lekotek" must be furnished with a manifold selection of formboards, color tools, puzzles, and pictures, aiming at the training of attention as to similarities and differences. Thus we have a great many various tools for teaching red-yellow-blue-green, etc. as well as the round, square, rectangular, etc. forms.

The eye-to-hand co-ordination is trained by cutting with a pair of scissors, although it is important to advance slowly. We start by putting the fingers of the child into the holes of a non-sharped pair of scissors, if he cannot understand a verbal instruction. The child should at first get acquainted with the tool, and feel how it fits into the hand, and how the thumb and the fore-finger work when cutting. Later on he may cut some small pieces of paper. At last it may be possible to test the child's ability to cut along a dotted line. Then the stage has been reached when the child may cut geometrical pictures or other figures with distinct outlines. The figures cut out may be used for artistic purpose - the child may paste them on a paper which has to be saved and put on the wall. It is most important to encourage the child, and to tell him how nice his picture looks on the wall, and how everybody will like it.

**INDIVIDUAL GUIDANCE IS NECESSARY**

Our principle is to receive only one child at a time - either together with both parents, or with only the mother, or the father. We always reserve about two hours for a visit, even if it should not be wanted, or needed. We find that very many parents have the experience of rushed visits to doctors, social workers, teachers, and other people involved in the child's situation. We do not want to hurry them when they come to the "lekotek". They should have a chance to talk about several problems which they, perhaps, have not been able to talk about earlier. Sometimes they bring a normal brother, or sister of the child, who may otherwise get jealous. We have realized this, and now we try to let the brothers or sisters feel that they could have some attention by the "lekotek" too.
Nothing is allowed to disturb the visit, or the child's play. The child should be in the centre, and the parents should be given enough time, not only to talk, but to learn, themselves, how to manipulate the play tools. Some parents are so afraid of "stealing" too much of our "expensive" time that we have to convince them not to hurry, or rush the child. The "lekotek" is created for their children and for them, we have to tell them - just for them, and for the time they need.

**SUMMARY AND SOME FUTURE ASPECTS**

The "lekotek" has been formed by a latent need in the families of mentally and physically disabled children in Sweden. It works along several lines, developed by the original need:

1. Advising children and parents as to suitable play activities which aim at developing, if possible, the child's functions to the upper limits of his personal ability. Visiting the homes of the children, in order to find out if the training functions in the homes along the lines we have tried to give. Around 400-500 families are now in the program.

2. Lecturing to professionals, psychologists, teachers of special pre-schools, nurses, social workers, physiotherapists, speech pathologists, doctors and other staff of institutions for handicapped children, etc. Even parents of communicatively disturbed children, deaf and hard of hearing children, motorically disabled and mentally retarded children are now in this program.

3. Arranging and leading courses for dayschool teachers who intend to start the same type of "lekotek" somewhere else in the country, or in some other country.

4. Group training program for small children with mental and emotional difficulties, referred to the "lekotek" by well baby clinics and special clinics. This program aims at structured educational stimulation. Through systematic observation in the training situations we hope that the group training may add to our own educational "alertness".

5. Research program of two kinds: a. Using our experience to encourage the producers of toys and play tools to improve their constructions and to design new tools, considering the needs of handicapped children.

   b. Introducing our newly developed screening-test BOEL in the Swedish well-baby clinics, thus reaching practically all Swedish children between 7 - 9 months of age. The screening-test is a check up of general development as well as sound attention and other functions of importance to the communicative behavior of the child. Courses for child health nurses in Sweden are a part of this program.

Thus we hope that the idea of the "lekotek" shall be of value for other parts of our country, as well as to the future planning of occupational centers and individual homes in Sweden as well as abroad.

**LEKOTEK TRAINING** also helps the handicapped to use the abilities later in life in meaningful activities - as at the Kjesåter institution for adult education. Creative work with different materials under the supervision of a professional artist, and social training in an integrated environment is applied.
President of the Board: John Lind, M. D. Professor of Pediatrics at Karolinska Institutet, Stockholm.

Educational leader: Evy Blid, preschool teacher

Research leader: Karin Stensland Junker, Ph.D.

Stockholm July 1971 Karin Stensland Junker