

# Case Studies

## The importance of using the Ronplay Kids interactive complex for rehabilitation and recovery of children and adults.

What is the RonplayKids 5-in-1 interactive complex?

Interactive complex with augmented reality 5-in-1: interactive sandbox + interactive floor for active classes + interactive floor for developmental classes + interactive wall for active games + "home theater"

### Overview of the complex:



The concept of "rehabilitation" is used in various fields of science and practice, due to which there are many definitions of this term. According to the WHO definition, rehabilitation is a comprehensive, targeted use of medical, social, educational and labor measures with the aim of adapting a person to activity at the highest possible level for him.

**Sand therapy** is one of the methods of therapy - it is a non-verbal form of psychotherapy. It is one of the ways of communicating with oneself and the world around; a unique way of relieving internal tension, embodying it on the unconscious-symbolic level, which allows to increase self-confidence and open up new paths of development. Sand therapy gives the opportunity to restore one's mental integrity, to collect one's unique image, picture of the world, to touch the deep, authentic Self. Carl Gustav Jung (1875-1961), a psychotherapist, the founder of analytical therapy, is considered the theorist of sand therapy. The idea of using sand in a game with sick and psychologically disadvantaged children was implemented by Margaret Lowenfeld in the 1930s. M. Lowenfeld called her method the technique of "world building". In the 1950s, Jungian psychoanalyst Dora Kalff, having studied the method of "world building", began to develop Jungian "Sand therapy". D. Kalff first used sand therapy with children and then with adults. D. Kalff based her approach to sand therapy on the theory of C.G. Jung. She found that a series of sand pictures created by children or adults actually represents an ongoing conflict with the unconscious and is comparable to a series of dreams. Working with sand initiates the mental process of moving towards integrity and can lead to healing and personal development. The method of "sand therapy" has now become well-known and is widely used by specialists in a variety of fields.

### Scientists identify the main principles of sand therapy:

- Creating a natural stimulating environment in which the child feels comfortable, demonstrating creative activity. To do this, it is necessary to select tasks that correspond to the child's capabilities; formulate instructions for games in a fairy-tale form; exclude negative evaluation of the child's actions, ideas, results, encouraging fantasy and creativity.
- Animation of abstract symbols: letters, numbers, geometric figures, etc. The implementation of this principle allows to form and strengthen positive motivation for classes and the child's personal interest in what is happening. Real "living", playing out all sorts of situations together with the heroes of fairy-tale games. Based on this principle, a mutual transition of the imaginary into the real and vice versa is carried out. The child not only offers a way out of the situation, but also really plays it out on the sand with the help of miniature figures. In this way, he convinces of the correctness or incorrectness of the chosen path.

The sandbox is a unique medium for establishing contact with the child. And if he speaks poorly and cannot tell an adult about his experiences, then in such games with sand everything becomes possible. By playing out an exciting situation, creating a picture from sand, the child opens up, and adults get the opportunity to see the child's inner world at the moment, and during sand therapy it will definitely "spill out" onto the sand surface.

### Sand therapy is used to help children solve their problems:

- **Increased anxiety.** A child may have certain phobias, which is not a deviation from the norm even in the life of an adult. However, such connivance to the voiced problem on the part of parents can end in neurosis and nervous tics in children, who begin to intensively cultivate their secret fears.
- **Inappropriate behavior.** Quite often children allow themselves to demonstrate their direct protest against the dictate of adults. However, not always children or teenagers observe the limits of permissibility, which should not be crossed, through manipulation in the form of hysterics and provocations to achieve the desired result.
- **Low self-esteem.** This mental pathology is dangerous because it entails a large number of complexes in the child when he enters adulthood. Sand psychotherapy will help to correct the self-esteem of the depressive little person as much as possible.
- **Conflict with society.** When the problem is voiced, difficult relationships can form with both adults and children. In some cases, the child enters into confrontation with parents, representatives of the teaching staff or peers.
- **Depression.** In some situations, such a depressed state can even lead to suicidal thoughts. Therefore, calming sand therapy will help children get rid of the voiced problem.
- **Child abuse.** This psychological trauma can be caused by moral or sexual pressure on a small personality that has not yet formed. Sand therapy alone is not enough in many cases, but as an accompanying correctional method it is very effective.

Sand therapy is mainly aimed at improving the psychological state of the child, but it can also affect the physical condition. Specialists also use sand therapy to develop fine motor skills in children, as well as during developmental and educational activities. Sand therapy is effectively used in pedagogy. "Pedagogical sandbox" allows you to simultaneously solve the problems of education, training, development and correction of children. Presenting the material in the form of a game allows you to better remember the new material, especially for those who have difficulties in learning, and during the classes, a trusting relationship is created between the child and the teacher.

Despite the apparent simplicity of this technique, it is a deep and subtle tool for creating a space in which the child feels so free and at the same time protected that he allows himself to heal.

**The basis of the methodology of work on the interactive sandbox Ronplay Kids is the method of sand therapy in combination with innovative developments of the augmented reality method.**

With the help of augmented reality technologies, ordinary sand turns into the earth's surface with lakes and mountains, volcanoes and valleys, animals, dinosaur skeletons, funny animated characters and much more appear. Children study geography, the structure of the earth, figures, learn to navigate in space, develop memory and logic.

Another function of the interactive complex is a magic table.

The magic table is an additional part of the sandbox, which is a hard surface above the sand with special sensory cubes. Roads, rivers, bridges, trains, planes and helicopters appear on the magic table just by moving the cubes! You can create different unique models of the city, where there will be large or small bridges, wide roads or narrow paths, and where large planes or only helicopters will fly. You can study the sounds of animals, feed them, study the alphabet or practice sounds, develop speech and memory and much more.

### What develops through games in the interactive sandbox Ronplay Kids:

- **Fine motor skills:** interacting with sand with all areas of the palm, the child stimulates the nerve endings of the palm, develops tactile sensations, the feeling of small particles and bulk materials. The development of fine motor skills for children of preschool and primary school age stimulates the processes of speech and mental development, since the development of the hand is closely connected with the development of speech and thinking of the child. Fine motor skills of the hands also interact with such higher properties of consciousness as attention, thinking, optical-spatial perception (coordination), imagination, observation, visual and motor memory, speech.
- **Color perception:** the child interacts with bright, attractive colors. Young children learn to distinguish colors by playing with sand, they see how the colors change, they can get the color they need by digging sand or building slides. Bright colors stimulate the child's physical and mental activity, have a beneficial effect on mood and reaction to the environment. Bright colors are necessary for a child during the development process, the nervous system of a healthy child needs the energetic effect of bright colors, which have an effect on the child's nervous system that it cannot do without. With the help of the Ronplay interactive sandbox, the child will get an idea of both the realistic colors of nature and bright dynamic images for better color perception.
- **Development of coordination:** interactive sandbox games Ronplay involve children in games that stimulate the development of coordination. It is difficult for a preschool child to control the hand, he strives to use the whole hand, but with games in the interactive sandbox, the movement of the hand, the interaction of thought and hand movement develops, interhemispheric interaction develops, which contributes to the development of children's stress resistance to school.
- **Self-control and self-control skills:** during the game, the child learns to achieve results, control their actions, accept failure or loss and develop a desire to win, to achieve a goal. With the help of playing in the interactive sandbox Ronplay, the child learns to control their emotions.
- **Teamwork:** several children can play in the Ronplay sandbox at the same time. In this way, children learn to work in a team, respect each other, interact with each other, defend their boundaries and respect others. Playing with peers is of great importance for a child. In play, children learn patience and cooperation, qualities that make children partners who are able to openly express thoughts and feelings in the interests of a common cause without the fear of being misunderstood. Playing with peers is also group psychotherapy, where a child (at least for a while) can free himself from negative emotions.
- **Love for animals:** Ronplay sandbox games have animals with which the child interacts virtually. The animals are drawn brightly and attractively, so that the child develops a positive perception of the animal, a caring attitude towards it. This helps to develop kindness, care for our smaller brothers, loyalty and generosity in children.
- **Explorer qualities:** a number of games are dedicated to exploration, where a child, through interaction with sand, can make discoveries, learn new interesting facts, acquire the skills of an archaeologist, geologist, builder, and many others.

Games in the interactive sandbox Ronplay Kids also attract parents, with whom you can organize competitions or complete levels together, which helps to create an atmosphere of trust, establish and establish contact, etc.

The Ronplay Kids interactive complex for children's play and development, which has no analogues in the world, includes sand therapy functions and child development using modern interactive technologies.

The software is developed by the companies "Fifth View Multimedia" and Ronplay LLC (Skolkovo resident), all games are tested by honored psychologists and have been proven to have not only a developmental, but also a therapeutic effect. The scope of application of the Ronplay Kids interactive equipment is very wide: preschool educational institutions, primary school classes, psychologists' offices, rehabilitation centers, shopping centers, hospitals, hotels, any playgrounds for children.

Only Ronplay Kids equipment is unique in software, game quality, technical characteristics. It has no analogues on the market for the above parameters.

